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## VX 5309.166

## Network/server rack VX IT

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ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES

FRIEDHELM LOH GROUP



# VX 5309.166 - Network/server rack VX IT with vented doors, pre-configured, with 482.6 mm (19") mounting angles, standard

VX IT network/server enclosure, vented, for room climate control. Supplied pre-assembled with a selection of practical equipment. 482.6 mm (19") interior installation with depth-variable 482.6 mm (19") mounting angles in the standard version, fitted at the front and rear.



## Features

Model No.	VX 5309.166
Material	Sheet steel Aluminium Plastic
Surface finish	Enclosure frame: Dipcoat-primed Interior installation: Spray-finished Rear door and roof: Dipcoat-primed, powder-coated Front door: Aluminium, anodised/spray-finished
General colour	RAL 7035
Colour	Enclosure frame, rear door and roof: RAL 7035 Front door: Vertical sections, silver coloured and horizontal sections, RAL 9005 Interior installation, vent grille at the front, base/plinth: RAL 9005 Handle and hinges: RAL 9005

# Features

Supply includes	<p>VX enclosure frame with doors and roof plate</p> <p>Aluminium/sheet steel door at the front, vented (vented surface area approx. 85% perforated), 180° hinges</p> <p>Sheet steel rear door, vented (vented surface area approx. 85% perforated), vertically divided, 180° hinges</p> <p>Lock front and rear: Comfort handle for profile half-cylinders and security lock 3524 E</p> <p>482.6 mm (19") mounting angle, standard, variably screw-fastened to depth stays at the top and bottom</p> <p>Side panels, one-piece, for screw fastening</p> <p>Roof plate, multi-piece, with side cable entry in the depth, double-sided, prepared for fan mounting plate</p> <p>Base module mounted at front as infill panel</p> <p>Base/plinth system VX, 100 mm, vented</p> <p>Base/plinth corner pieces and trim panels, sides, screw-fastened</p> <p>Base/plinth trim panels, front and rear plus corner and baying covers supplied loose</p> <p>4 levelling feet, M12, including base/plinth adaptor (supplied loose)</p> <p>Spacers, height 50 mm, to raise a cover plate above the fan cut-out in the roof plate, for passive cooling (supplied loose). Not required for variants without a cut-out.</p> <p>12 x 482.6 mm (19") fastener, 1 U, conductive (supplied loose)</p> <p>25 multi-tooth screws, conductive (supplied loose)</p> <p>4 combination rails for inner and outer mounting level, to fit rack depth (supplied loose)</p> <p>10 cable shunting rings, metal, 125 x 65 mm (supplied loose)</p> <p>IPPC pallet</p> <p>Base module mounted at front as infill panel, depth 75 mm</p>
Dimensions	<p>Width: 800 mm</p> <p>Height: 2,000 mm</p> <p>Depth: 1,000 mm</p>
Units	42 U
Units	42 U
Height including base/plinth	2,100 mm
Free mounting space to the 482.6 mm (19") level, front/rear	87 mm / 193 mm
Distance between levels as delivered	720 mm

# Features

Design	Pre-configured
Roof design	multi-piece, with side cable entry in the depth, double-sided, prepared for fan mounting plate
Rear door design	Sheet steel door, vented, vertically divided, 180° hinges
Front door design	Aluminium/sheet steel door, vented, one-piece, 180° hinges
Mounting angle design	482.6 mm (19") mounting angles, standard in the VX IT
Base design	Base module mounted at front as infill panel
Mounting angles position	482.6 mm (19") level, front and rear
Load capacity	15,000 N
Max. load capacity (static) per enclosure to UL 2416	12,000 N
Note	Depending on how and where it is sited, the door opening angle may vary for selected applications
Basic material	Sheet steel
Packs of	1 pc(s).
Net weight	138
Gross weight	155
PCF per pack (cradle-to-gate)	381.9 kg CO2 eq (Cat B)
Note on PCF category	Category B: PCF value (cradle-to-gate) based on the product weight, approximately calculated and self-declared
EAN	4028177945128
ETIM 9	EC002499
ECLASS 8.0	27180207

# Approvals

Approvals	UL + C-UL (listed)
Certificates	Surface finish

# Approvals

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Explanations

Manufacturer's declaration

Declaration of conformity

Declaration of conformity UK

# Tender text

VX IT pre-configured network, server and electronics enclosure,  
"standard" variant,  
IT rack, installation height 42 U, vented aluminium sheet steel door at the front, two-piece, vented sheet steel door at the rear.

Rack frame:

Pre-configured IT rack, comprising a torsionally rigid, welded and full symmetrical frame of rolled, 9-fold closed hollow profile, with punchin in a 25 mm pitch pattern.

Frame with integrated M6 blind rivet nuts, to enable fittings to be mounted without impairing the degree of protection. All profile edges are chamfered. Horizontal sections with integrated channel above the PU foam seal as protection for the seal.

Same profile on all sides, with two mounting levels accessible from inside and outside, for fast and space-saving interior installation.

Square holes on all sides to enable the use of cage nuts and metric screws up to M8.

Base:

Welded base frame with integrated reinforcement to enable direct bolting to the floor from inside the enclosure. Pre-configured base frame with closed, one-piece base module as blanking trim in the front trim position. Further base modules or function elements can be selected as upgrades from the range of accessories. Basic enclosure already configured with pre-assembled, 100 mm VX base/plinth system. Base/plinth corner pieces and side trim, closed, pre-assembled. Front and rear base/plinth trim, vented, supplied loose for later installation, tool-free assembly. This permits simple transport to the place of installation using a pallet truck or fork-lift.

Baying possible on all sides. Static load capacity up to 15,000 N, and up to 12,000 N acc. to UL 2416.

Front and rear door:

Vented aluminium sheet steel front door, with perforated sheet steel panel, 85% free ventilation area, held in a frame of aluminium sections vertical sections silver-grey anodised, horizontal sections painted, RAL 9005.

Door with three hinges and four-point locking rod. Door hinge can be swapped from right to left, hinge pins with integrated adjustment aid, door opening angle 240° for stand-alone enclosures, 105° with baying. Sheet steel rear door, two-piece, vertically divided, vented. Perforate surface with 85% free ventilation area. Rear door with integrated

reinforcement section on both sides, with three hinges and three-point locking rod.

Door hinge can be swapped from right to left, hinge pins with integrate door opening angle 240° for stand-alone enclosures, 160° with baying. Baying hinges with 180° opening angle for front and rear doors available separately via the range of accessories.

Both doors with comfort handle for semi-cylinder (30/10) mm, with security lock 3524 E.

Roof plate:

Multi-part roof plate with cable entry on both sides via brush strips over the whole enclosure depth. The multi-part design permits removal of the roof plate with the cabling in place, which greatly simplifies late retrofitting or modification. Roof incorporating a concealed cut-out to accommodate a fan unit for active ventilation. To support passive ventilation, the cover plate can be raised on spacer pillars, if required.

Mounting levels:

Enclosure pre-configured with two 482.6 mm (19") mounting levels, front and rear.

The total static load capacity of both mounting levels is 15,000 N.

Dynamic load capacity (moving on transport module) up to 10,000 N.

Mounting level comprising universal mounting angles for server, network and electronics applications, front and rear, depth-variable, 15 mm pitch pattern,

screw-fastened to the enclosure frame via depth stays at top and bottom

Imperial mounting levels can be positioned either symmetrically or asymmetrically with an offset to each other. Alternative mounting dimensions for 21", 23" or 24" components can also be realised.

Mounting angles front and rear, material thickness 2.0 mm, with additional pitch pattern in accordance with the standard EIA 310 E. All height units are marked on the mounting angles and numbered in opposite directions. Height unit markings on both mounting levels can be read from both inside and outside for simplified component installation.

Front mounting angles prepared for tool-free mounting of cable routing aids and organisation of structured cabling with maximum packing density.

Rear mounting angles prepared on both sides for mounting of a Power Distribution Unit (PDU) in 1 U form factor for electrical power distribution in the enclosure, avoids occupying component installation space thanks to space-saving side mounting in the zero-U space between mounting level and side panel.

Supply includes:

Practice-proven mounting accessories, such as spacers for optional raising of the cover plate, 4 levelling feet, 4 cable clamp rails, combi-rails comprising C-profile and hammer-head sections for cable clamping, for mounting on either the inner or outer mounting level, 10 metal cable shunting rings, 125x65 mm, accessories for 19" components comprising twelve 19" fasteners, 1 U contacting, and 25 hexagon socket screws, conductive, with washers for thread size M5.

Potential equalisation:

All panel parts with automatic potential equalisation or prepared for the attachment of earthing straps.

482.6 mm (19") assembly parts are supplied loose.

A potential equalisation kit is available as an accessory.

Side panels:

One-part screw-fastened side panels, variant (IP 55), mounted, are in the scope of supply. Optional internal latch available via the range of accessories.

Horizontally divided and vertically divided, hinged variant (IP 20) available via the range of accessories.

QR code:

Printed QR codes on all panel parts, the roof, doors and rating plate provide for the unambiguous marking of individual components, simplify access to relevant product information and documentation, and ensure the full traceability of single parts.

Material:

Enclosure frame, roof: Sheet steel 1.5 mm

Rear door: Sheet steel 1.5 mm

Front door: Aluminium-Sheet steel 1.5 mm

482.6 mm (19") mounting angles: Sheet steel 2.0 mm

Surface finish (sheet steel):

Triple surface treatment for corrosion protection and resistance to mineral oil, lubricants, machining emulsions and solvents:

Nanoceramic coating, electrophoretic dipcoat priming, textured powder coating in RAL 7035/9005.

Protection classes:

Protection category according to IEC 60 529 (with mounted side panels in a bayed suite with seals):

IP 00 Protection category according to NEMA (with mounted side panels or in a bayed suite with seals):

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Surface finish:

Panel parts, doors, interior installation, painted in RAL 7035/9005

Aluminium front door, vertical, aluminium, silver-grey anodised



Aluminium front door, horizontal, aluminium, painted in RAL 9005

Aluminium front door, sheet steel panel, painted in RAL 9005

Approvals:

UL2416 NITW (NFPA70, NFPA75)

IEC/EN 60950 (CB Certificate and Report)

IEC/EN 62368 (CB Certificate and Report)

Dimensions (WHD): 800x2100x1000 mm

Earthing measures in accordance with the risk assessment according to DIN EN 62368-1 are not required for VX IT cabinets, therefore an earthing accessory is not included in the scope of deliver For increased EMC requirements a potential equalization set can be purchased via the accessories programme. (5302.027 and 5302.028)

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Model No: VX IT 5309.166

Manufacturer: Rittal GmbH & Co. KG