Pixus Technologies
Subrack Systems

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			■			■		■	Ripac Vario	aluminium	
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■			■			■		■	Ripac Vario EMC	aluminium	
■				■			■		Ripac Vario EMC	aluminium	
			■			■			Ripac Compact	aluminium	
			■			■			Ripac Vario Mobil	aluminium	

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									Table of horizontal rails	
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						■		■	Mounting kits	
									Guide rails	
									Keying/PCB ejectors	
									Covers	
									Subrack climate control	
									Front panels, handles	
			■			■			Ripac box type plug-in units	
									Assembly parts	

Overview

Ripac EASY

For standard applications or demanding mechanical requirements
Model No.

Applications
Subrack system for standard applications or for high mechanical loads. Also suitable for applications requiring simple handling and fast assembly. Suitable for the installation of standardised PCBs or board type plug-in units up to 400 mm deep.

Design features
- 482.6 mm (19″) to IEC 60 297-3
- Height: 3 and 6U
- For board depth: 160 mm, 220 mm, 280 mm, 340 mm, 400 mm
- Fast, simple assembly thanks to pre-assembled screws and slots in the side panels
- Cover plates simply slide into place
- Horizontal rails with double screw-fastening
- Material: Aluminium, corrosion-resistant
- Mounting positions for horizontal rails on a 60 mm pitch pattern
- Horizontal rails at the rear with integral contact surface
- Installation of backplanes/midplanes or connectors
- Separate 482.6 mm (19″) gland plate

User benefits
- Simple, fast assembly thanks to pre-assembled screws
- Slide-in cover plates
- Horizontal rails with integral contact surface (no insulating strips required)
- Double screw-fastening of the horizontal rails ensures stability even under heavy loads

Ripac Vario

For standard applications or complex configurations
Model No.

Applications
Subrack system for standard applications or complex configurations. Suitable for the installation of standardised PCBs or board type plug-in units up to 400 mm deep.

Design features
- 482.6 mm (19″) rack-mount system to IEC 60 297-3
- 3, 4, 6, 7 and 9U
- For board formats up to 400 mm deep
- Side panels of aluminium, clear-chromated
- Mounting positions for horizontal rails on a 10 mm pitch pattern
- Installation of backplanes/midplanes or connectors
- Separate 482.6 mm (19″) gland plate

User benefits
- Side panels with 10 mm pitch pattern of holes for variable system installation
- EMC upgradable
- 482.6 mm (19) gland plate may optionally be mounted on the front or rear
- Many size variants available as standard
- For backplane or connector mounting
- Extensive range of accessories

Ripac Vario EMC

For EMC applications and complex configurations
Model No.

Applications
Subrack system for EMC applications or complex configurations. Suitable for the installation of standardised PCBs or board type plug-in units up to 400 mm deep.

Design features
- 482.6 mm (19″) EMC rack-mount system to IEC 60 297-3
- 3, 4, 6, 7 and 9U
- For board formats up to 400 mm deep
- Side panels of aluminium, clear-chromated
- Mounting positions for horizontal rails on a 10 mm pitch pattern
- Installation of backplanes/midplanes or connectors
- Separate 482.6 mm (19″) gland plate
- Including EMC springs

User benefits
- EMC version
- Side panels with 10 mm pitch pattern of holes for variable system installation
- 482.6 mm (19) gland plate may optionally be mounted on the front or rear
- Many size variants available as standard
- For backplane or connector mounting
- Extensive range of accessories

Overview

Ripac Compact

For mounting plates or top hat rails
Model No.

Applications
Subrack system for direct mounting in the enclosure. May optionally be mounted on a top hat rail or mounting plate. Suitable for the installation of standardised PCBs or board type plug-in units.

Design features
- Rack-mount system to IEC 60 297-3
- Prepared for mounting on top hat rails or directly on the mounting plate
- 3 and 6U
- For board formats up to 160 mm deep
- Installation width: 21 and 42 HP
- Side panels of aluminium, clear-chromated
- Installation of backplanes/midplanes

User benefits
- Direct mounting on mounting plates or rails
- Variable cable entry from below or above
- Side panels with 10 mm pitch pattern of holes for variable system installation
- For backplane mounting
- EMC version optional

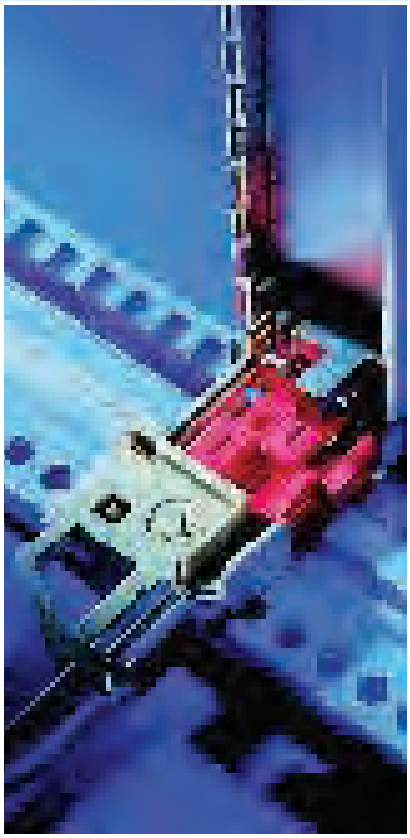
Ripac Vario Mobil

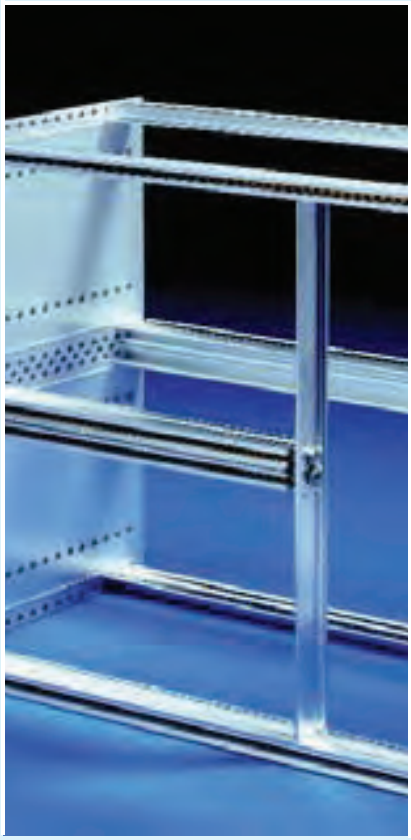
For mobile applications
Model No.

Applications
Subrack system for use in rail vehicles. Suitable for the installation of standardised PCBs or board type plug-in units.

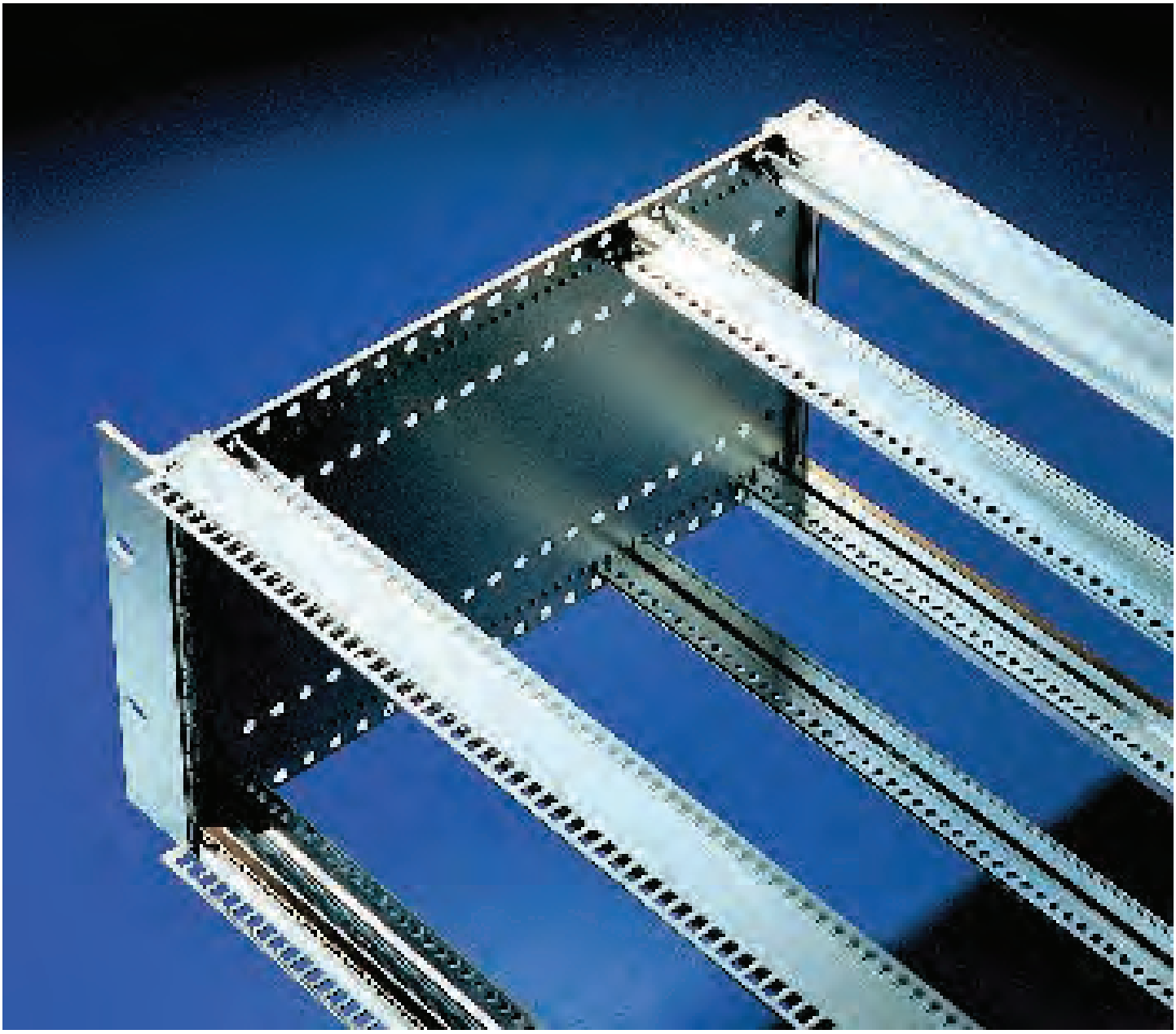
Design features
- 482.6 mm (19″) rack-mount system to IEC 60 297-3
- Tested to EN 50 155, 1996 (electronic equipment for rail vehicles)
- 3 and 6U
- For board formats up to 220 mm deep
- Side panels of aluminium, clear-chromated
- Installation of backplanes/midplanes or connectors
- Fully assembled

User benefits
- Suitable for use in rail vehicles
- EMC versions available
- Side panels with 10 mm pitch pattern of holes for variable system installation
- Fully assembled
- For backplane or connector mounting





Subracks



The modular concept of Ripac subracks facilitates a wide range of application options with a minimum of components.

All Ripac subracks are based on the same horizontal rails and system components.

The difference lies in the design of the side panels and installation options.

The subracks are shock and vibration-tested and comply with IEC 60 297-3-101, -102, -103.

Ripac Vario/Vario EMC

Complex applications thanks to numerous size variants and system accessories.

Depth-variable system installation is supported by the 10 mm pitch pattern of holes in the side panels.

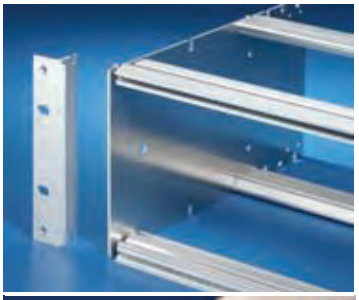
EMC shielding via horizontal and vertical EMC gaskets. Also suitable for retrofitting (with Ripac Vario).

Ripac Vario Mobil

- The subracks have been tested for use in the German national railway. Testing was conducted in accordance with standard EN 50 155, 1996 (electronic equipment in rail vehicles). The construction of the subracks tested conforms to IEC 48D.
- Vibration and shock-tested to: IEC 600-68-2-6, test Fc IEC 600-68-2-27, test Ea
- Supply includes: Subrack, fully assembled.

Ripac Compact

Subracks for mounting on mounting plates or top hat rails.



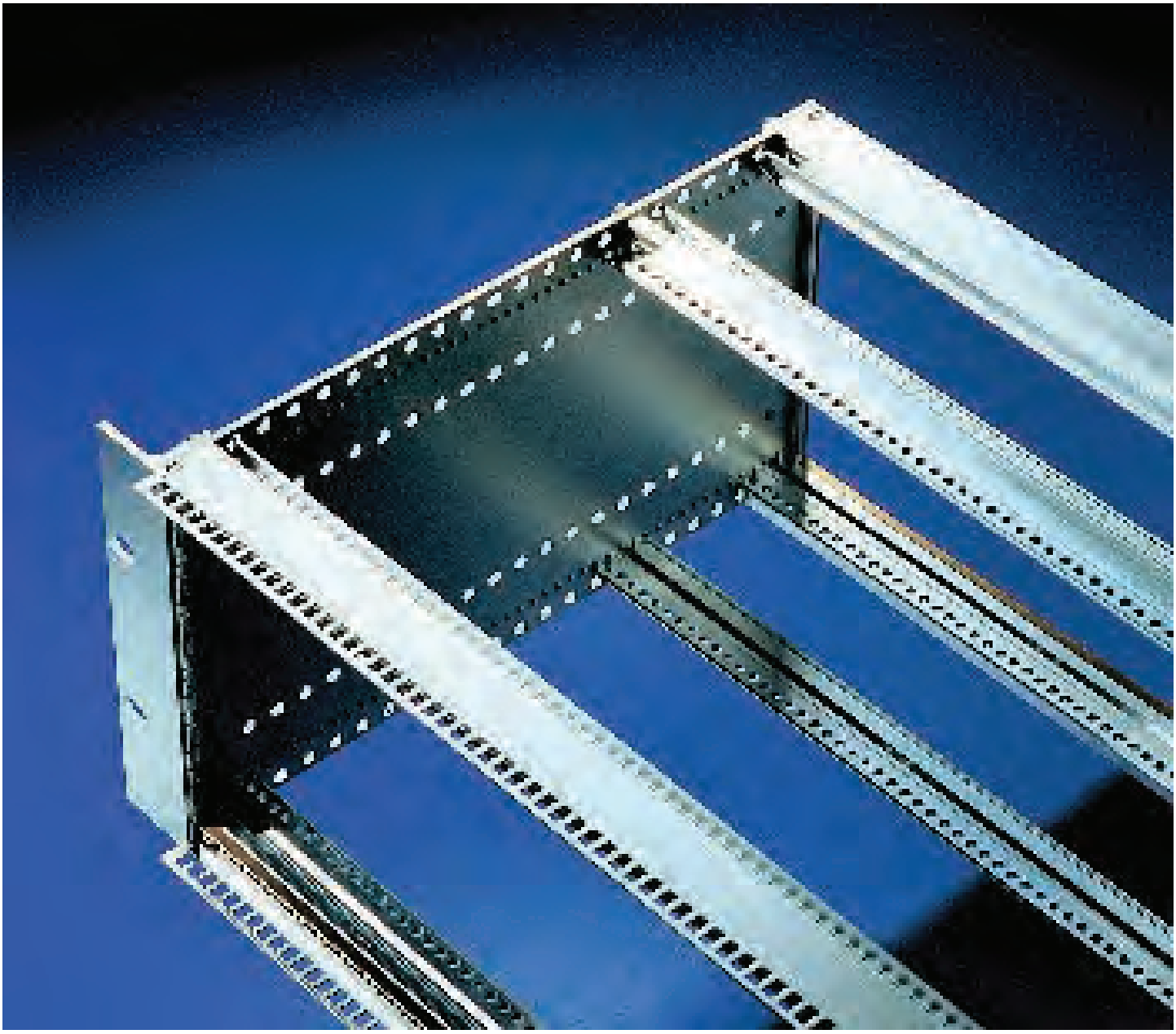
Ripac EASY

Simple handling thanks to pre-assembled screws. Double screw-fastening of the rails ensures safety even under heavy loads

Overview of benefits

- Modular subrack systems for individual configuration
- 5 basic versions for a variety of application areas
- Horizontal rails and accessories to fit all variants
- Prepared for or upgradable to EMC
- Fully assembled and wired on request
- Vibration and shock-tested

Ripac EASY



The modular concept of Ripac subracks facilitates a wide range of application options with a minimum of components.

All Ripac subracks are based on the same horizontal rails and system components.

The difference lies in the design of the side panels and installation options.

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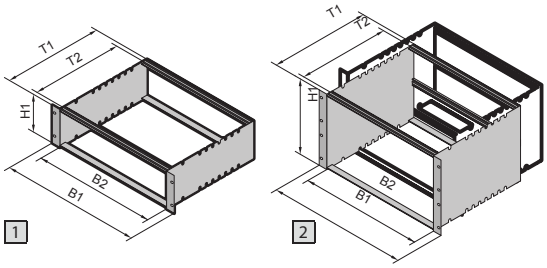
Ripac EASY



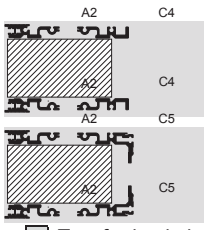
Material/Surface finish:
Side panels:
2 mm aluminium, corrosion-resistant
Horizontal rails:
Extruded aluminium section, corrosion-resistant
Flanges: Pre-anodised

Supply includes:
Side panels, flanges, horizontal rails, threaded inserts, assembly screws.
Rear horizontal rails (C4, C5) including prefitted assembly screws,
front horizontal rails (A2) including prefitted assembly screws and threaded inserts.

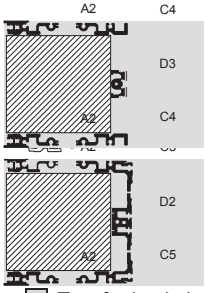
Tests:
Vibration and shock-tested to:
IEC 600-68-2-6 test Fc
IEC 600-68-2-27 test Ea

Standards:
Subracks are based on the system dimensions of IEC 60 297-3.

Note:
The backplanes may be fitted in direct contact with the rear horizontal rails.
No additional insulating strips are required.



1 Top: for backplane
Bottom: for connectors

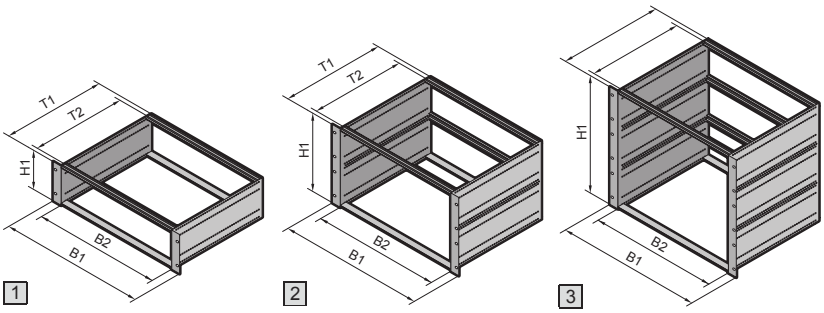


2 Top: for backplane
Bottom: for connectors

☑ Custom configuration available upon request.

					Model No. RP 1		Model No. RP 2		Page
U (H1)					3		6		
B1 mm	B2 HP	Side panel (T1) mm	T2 mm	Max. PCB depth mm	For backplane	For connector IEC 60 603-2	For backplane	For connector IEC 60 603-2	
482.6 (19″)	84	175	160	160	3634.100	**3634.150**	**3634.180**	**3634.230**	
		235	220	220	**3634.110**	**3634.160**	**3634.190**	**3634.240**	
		295	280	280	**3634.120**	**3634.170**	**3634.200**	**3634.250**	
		355	340	340	**3634.130**	–	**3634.210**	–	
		415	400	400	**3634.140**	–	**3634.220**	–	
Accessories									
Covers									171
Horizontal rails									146
Guide rails									165

Ripac Vario 3U, 6U, 9U



EMC upgradable

B = Width
H = Height
T = Depth

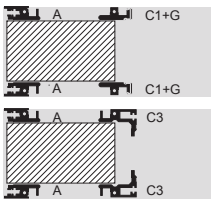
Material/Surface finish:
Side panels:
2.5 mm aluminium,
clear-chromated
482.6 mm (19″) flanges and
horizontal rails:
Extruded aluminium section,
clear-chromated

Supply includes:
Flanges, side panels, horizontal rails, threaded inserts, insulating strips or Z rails.

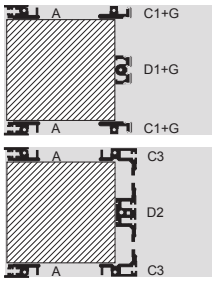
Detailed parts lists,
see page 272.

Tests:
Vibration and shock-tested to:
IEC 600-68-2-6 test Fc
IEC 600-68-2-27 test Ea

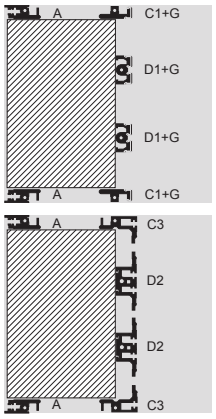
Standards:
Ripac subracks are based on the system dimensions of IEC 60 297-3.



1 Top: for backplane
Bottom: for connectors



2 Top: for backplane
Bottom: for connectors

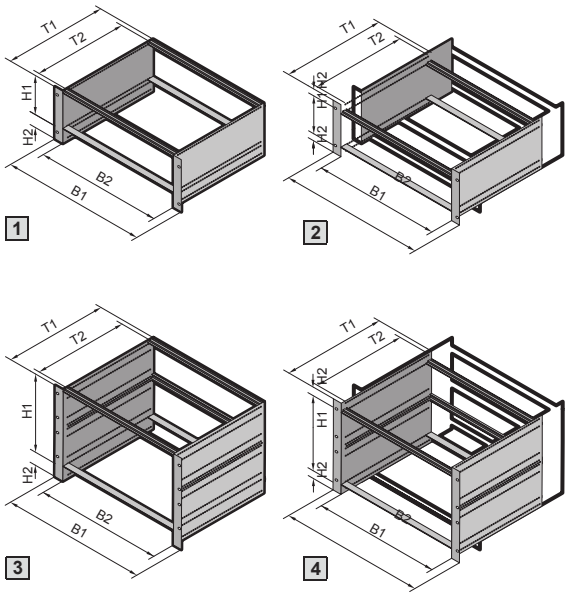


3 Top: for backplane
Bottom: for connectors

☑ Custom configuration available upon request.

					Model No. RP					
					1		2		3	
U					3	3	6	6	9	9
Height (H1) mm					132		265.35		398.70	
B1 mm	B2 HP	Side panel (T1) mm	T2 mm	Max. PCB depth mm	For backplane	For connector IEC 60 603-2	For backplane	For connector IEC 60 603-2	For backplane	For connector IEC 60 603-2
482.6 (19″)	84	185	160	160	**3684.020**	**3684.034**	**3684.043**	**3684.056**	–	–
		225	200	160	**3684.021**	**3684.035**	**3684.044**	**3684.057**	–	–
		245	220	220	**3684.022**	**3684.036**	**3684.045**	**3684.058**	–	–
		285	260	220	**3684.023**	**3685.281**	**3684.046**	–	–	–
		305	280	280	**3685.231**	**3685.233**	**3685.238**	**3685.240**	–	–
		345	320	280	**3684.024**	–	**3684.047**	–	**3684.051**	**3684.059**
		365	340	340	**3685.232**	**3685.234**	**3685.239**	–	–	–
		405	380	340	**3684.025**	–	**3684.048**	–	**3684.052**	**3684.060**
		465	440	400	**3684.026**	–	**3684.049**	–	**3684.053**	**3684.061**
		525	500	400	**3684.027**	–	**3684.050**	–	**3684.054**	–
		585	560	400	–	–	–	–	**3684.055**	–

Ripac Vario 4U, 7U



B = Width
H = Height
T = Depth

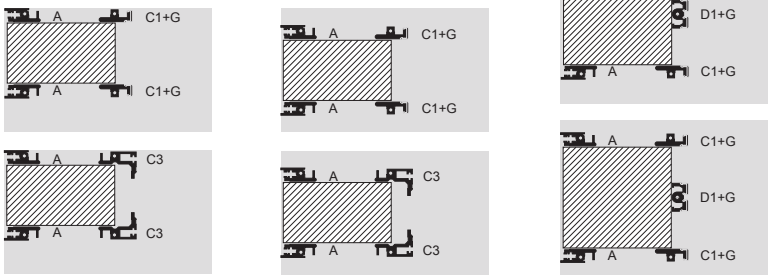
Material/Surface finish:
Side panels:
2.5 mm aluminium,
clear-chromated
482.6 mm (19″) flanges and
horizontal rails:
Extruded aluminium section,
clear-chromated

Supply includes:
Flanges, side panels, horizontal rails, threaded inserts, insulating strips or Z rails.

Tests:
Vibration and shock-tested to:
IEC 600-68-2-6 test Fc
IEC 600-68-2-27 test Ea

Standards:
Ripac subracks are based on the system dimensions of IEC 60 297-3.

EMC upgradable



1 Top: for backplane
Bottom: for connectors

2 Top: for backplane
Bottom: for connectors

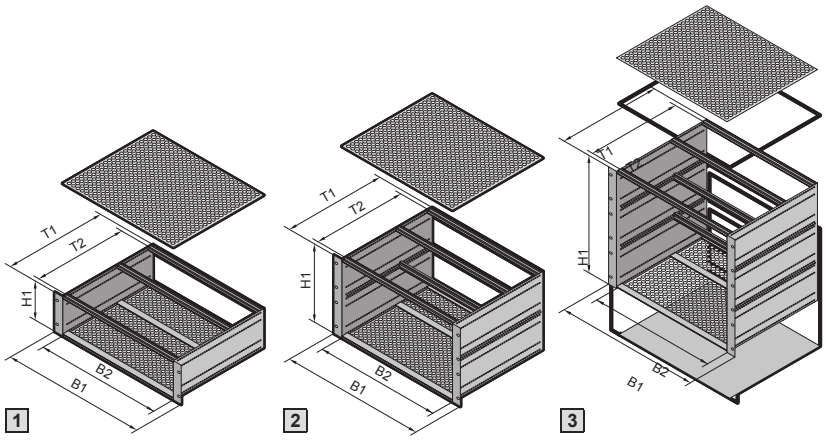
3 Top: for backplane (6U + 1U)

4 Bottom: for backplane (6U + 2 x $^1/_2$U)

☑ Custom configuration available upon request.

					Model No. RP					
					1		2		3	4
U (H1 + H2)					**4** (3 + 1)	**4** (3 + 1)	**4** (3 + 2 x $^1/_2$)	**4** (3 + 2 x $^1/_2$)	**7** (6 + 1)	**7** (6 + 2 x $^1/_2$)
B1 mm	B2 HP	Side panel (T1) mm	T2 mm	Max. PCB depth mm	For backplane	For connector IEC 60 603-2	For backplane	For connector IEC 60 603-2	For backplane	For backplane
482.6 (19″)	84	245	220	220	**3685.235**	–	–	–	–	–
		285	260	220	**3684.028**	**3684.037**	**3684.031**	**3684.040**	–	–
		305	280	280	**3685.236**	–	–	–	–	–
		345	320	280	**3684.029**	**3684.038**	**3684.032**	**3684.041**	–	–
		365	340	340	**3685.237**	–	–	–	–	–
		405	380	340	**3684.030**	**3684.039**	**3684.033**	**3684.042**	**3684.064**	**3684.062**
		465	440	400	–	–	–	–	**3684.065**	**3684.063**

Ripac Vario EMC 3U, 6U, 9U



B = Width
H = Height
T = Depth

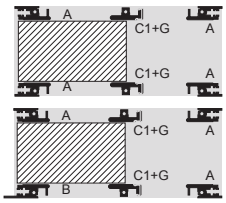
Material/Surface finish:
Side panels:
2.5 mm aluminium,
clear-chromated
Flanges and horizontal rails:
Extruded aluminium section,
clear-chromated
Covers: Aluminium, unplated

Supply includes:
Flanges, rear trim, side panels, EMC gaskets, covers, mounting blocks, horizontal rails, insulating strips.

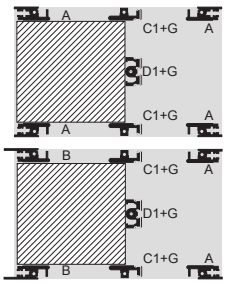
Tests:
Vibration and shock-tested to:
IEC 600-68-2-6 test Fc
IEC 600-68-2-27 test Ea

Standards:
Ripac subracks are based on the system dimensions of IEC 60 297-3.

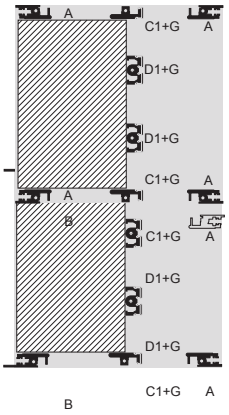
EMC



1
Top: for backplane
Bottom: for backplane/ front horizontal rail with 10 mm extension



2
Top: for backplane
Bottom: for backplane/ front horizontal rail with 10 mm extension

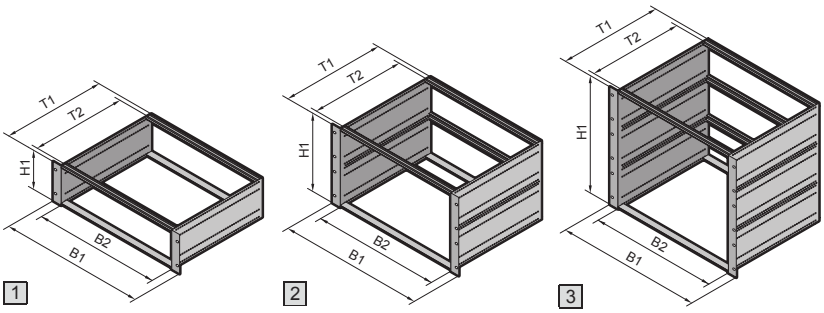


3
Top: for backplane
Bottom: for backplane/ front horizontal rail with 10 mm extension

					Model No. RP 1		Model No. RP 2		Page
U (H1)					3		6		
B1 mm	B2 HP	Side panel (T1) mm	T2 mm	Max. PCB depth mm	For backplane	For connector IEC 60 603-2	For backplane	For connector IEC 60 603-2	
482.6 (19″)	84	175	160	160	3634.100	**3634.150**	**3634.180**	**3634.230**	
		235	220	220	**3634.110**	**3634.160**	**3634.190**	**3634.240**	
		295	280	280	**3634.120**	**3634.170**	**3634.200**	**3634.250**	
		355	340	340	**3634.130**	–	**3634.210**	–	
		415	400	400	**3634.140**	–	**3634.220**	–	

Accessories	
Covers	171
Horizontal rails	146
Guide rails	165

Ripac Vario EMC 3U, 6U, 9U



EMC upgradable

B = Width
H = Height
T = Depth

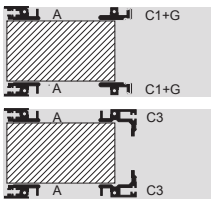
Material/Surface finish:
Side panels:
2.5 mm aluminium,
clear-chromated
482.6 mm (19″) flanges and
horizontal rails:
Extruded aluminium section,
clear-chromated

Supply includes:
Flanges, side panels, horizontal rails, threaded inserts, insulating strips or Z rails.

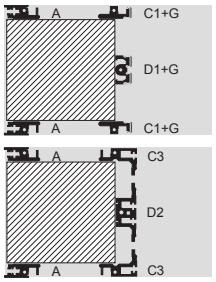
Detailed parts lists,
see page 272.

Tests:
Vibration and shock-tested to:
IEC 600-68-2-6 test Fc
IEC 600-68-2-27 test Ea

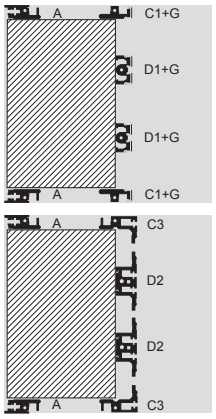
Standards:
Ripac subracks are based on the system dimensions of IEC 60 297-3.



1 Top: for backplane
Bottom: for connectors



2 Top: for backplane
Bottom: for connectors



3 Top: for backplane
Bottom: for connectors

☑ Custom configuration available upon request.

					Model No. RP					
					1		2		3	
U					3	3	6	6	9	9
Height (H1) mm					132		265.35		398.70	
B1 mm	B2 HP	Side panel (T1) mm	T2 mm	Max. PCB depth mm	For backplane	For connector IEC 60 603-2	For backplane	For connector IEC 60 603-2	For backplane	For connector IEC 60 603-2
482.6 (19″)	84	185	160	160	**3684.020**	**3684.034**	**3684.043**	**3684.056**	–	–
		225	200	160	**3684.021**	**3684.035**	**3684.044**	**3684.057**	–	–
		245	220	220	**3684.022**	**3684.036**	**3684.045**	**3684.058**	–	–
		285	260	220	**3684.023**	**3685.281**	**3684.046**	–	–	–
		305	280	280	**3685.231**	**3685.233**	**3685.238**	**3685.240**	–	–
		345	320	280	**3684.024**	–	**3684.047**	–	**3684.051**	**3684.059**
		365	340	340	**3685.232**	**3685.234**	**3685.239**	–	–	–
		405	380	340	**3684.025**	–	**3684.048**	–	**3684.052**	**3684.060**
		465	440	400	**3684.026**	–	**3684.049**	–	**3684.053**	**3684.061**
		525	500	400	**3684.027**	–	**3684.050**	–	**3684.054**	–
		585	560	400	–	–	–	–	**3684.055**	–

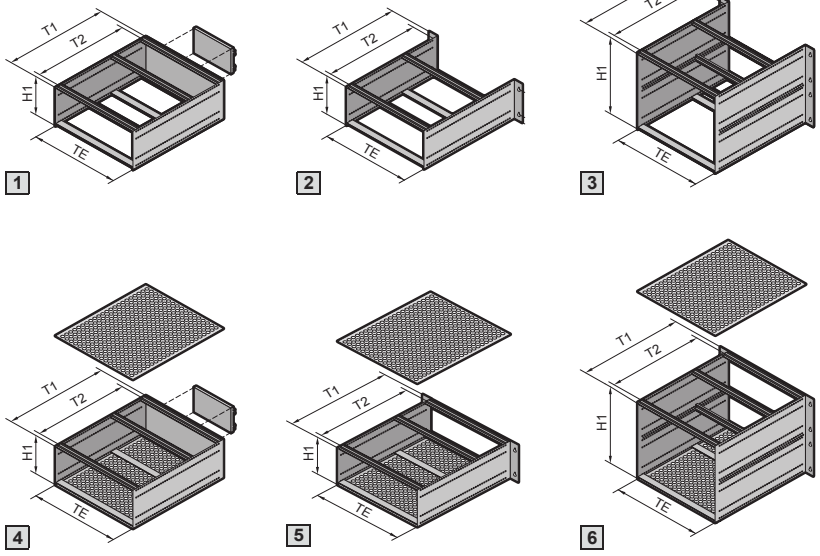
Ripac Compact 3U, 6U

Material/Surface finish:
Side panels:
2.5 mm aluminium,
clear-chromated
Flanges and horizontal rails:
Extruded aluminium section,
clear-chromated

Supply includes:
Side panels, rear trims, flanges for mounting plates or top-hat rail adaptors, EMC front/rear panels, EMC gaskets, covers, horizontal rails, threaded inserts, insulating strips.

Tests:
Vibration and shock-tested to:
IEC 600-68-2-6 test Fc
IEC 600-68-2-27 test Ea

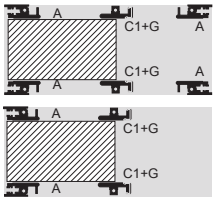
Standards:
Ripac subracks are based on the system dimensions of IEC 60 297-3.



B = Width
H = Height
T = Depth

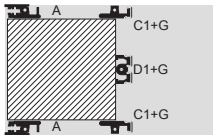
1 4
Ripac Compact 3 U
for top-hat rail

2 3 5 6
Ripac Compact 3 U
for mounting plate

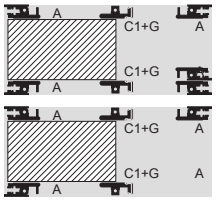


1 Top:
for top-hat rail

2 Bottom:
for mounting plate

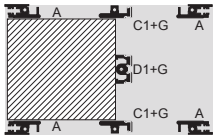


3 For mounting plate



4 Top: EMC for
top-hat rail

5 Bottom: EMC for
mounting plate



6 EMC for
mounting plate

☑ Custom configuration available upon request.

			Model No. RP					Model No. RP EMC				
			1	2	1	2	3	4	5	4	5	6
U			**3**	**3**	**3**	**3**	**6**	**3**	**3**	**3**	**3**	**6**
Height (H1) mm			132				265.35	132				265.35
HP			21	21	42	42	42	21	21	42	42	42
Attachment			Top-hat rail	Mounting plate	Top-hat rail	Mounting plate	Mounting plate	Top-hat rail	Mounting plate	Top-hat rail	Mounting plate	Mounting plate
Side panel (T1) mm	T2 mm	Max. PCB depth mm	For backplane									
225	200	160	**3687.667**	**3687.669**	**3687.671**	**3687.673**	**3687.680**	**3687.682**	**3687.684**	**3687.686**	**3687.688**	**3687.690**
285	260	220	**3687.668**	**3687.670**	**3687.672**	**3687.674**	**3687.681**	**3687.683**	**3687.685**	**3687.687**	**3687.689**	**3687.691**

Ripac VarioMobil 3U, 6U

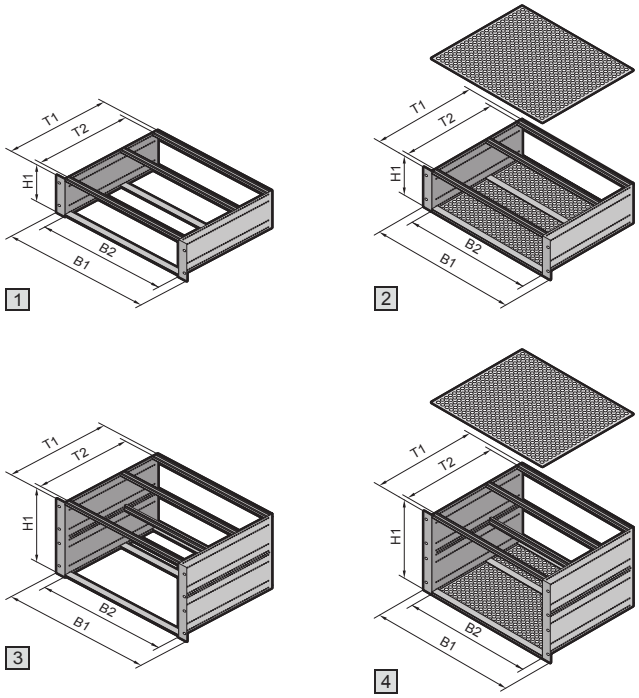
Material/Surface finish:
Side panels:
2.5 mm aluminium,
clear-chromated
482.6 mm (19″) flanges and
horizontal rails:
Extruded aluminium section,
clear-chromated
Covers: Aluminium, unplated

Supply includes:
Flanges, rear trims, side panels, EMC gaskets, covers, mounting blocks, horizontal rails, threaded inserts, insulating strips, fully assembled.

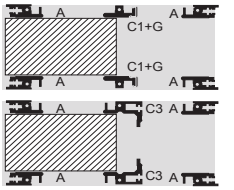
Tests:
Vibration and shock-tested to:
IEC 600-68-2-6 test Fc
IEC 600-68-2-27 test Ea
The subracks have been tested for use in the German national railway. Testing was conducted in accordance with standard EN 50 155, 1996 (Electronic Equipment in Rail Vehicles).
The configuration of the tested subracks conforms to IEC 48 D.

Standards:
Ripac subracks are based on the system dimensions of IEC 60 297-3.

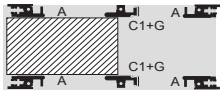
Note:
The subracks are supplied fully assembled.



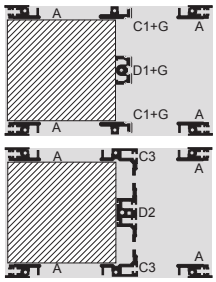
B = Width
H = Height
T = Depth



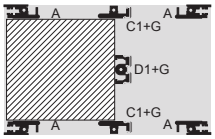
1 Top:
for backplane
Bottom:
for connector



2 EMC for backplane



3 Top:
for backplane
Bottom:
for connector



4 EMC for backplane

☑ Custom configuration available upon request.

					Model No. RP 1		Model No. RP EMC 2	Model No. RP 3		Model No. RP EMC 4
U					3	3	3	6	6	6
Height (H1) mm					132			265,35		
B1 mm	B2 HP	Side panel (T1) mm	T2 mm	Max. PCB depth mm	For backplane	For connector IEC 60 603-2	For backplane	For backplane	For connector IEC 60 603-2	For backplane
482.6 (19″)	84	245	220	220	**3687.782**	**3687.780**	**3687.784**	**3687.783**	**3687.781**	**3687.785**