

Front Panel Service



Front panels are structural elements which need to be designed individually depending on the application. Particularly for small quantities (1 – 50 units), this entails a high time input in terms of development and production.

With this in mind, Pixus offers its customers a service which covers the entire machining process, right through to assembly.

Services in detail:

- Machining: drilling, milling, thread tapping, countersinking
- Surface finishing: labelling, surface printing
- Assembly: EMC gaskets, handles, PCB holders.

Front Panels, Handles



Flat front panels with type I or II extractor handle

Complete modular systems

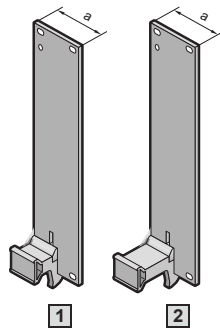
Material:

Front panel: 2.5 mm aluminium, anodised

Handle: Plastic, black

Supply includes:

- 1 front panel,
- 2 handles (1 with 3U),
- 1 set of assembly parts,
- 1 PCB holder (for 3U).

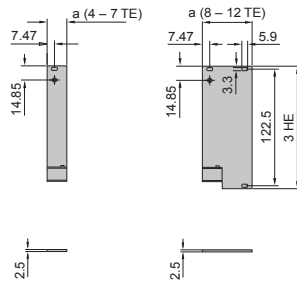


| U (HE) | HP (TE) | a mm | Model No. RP | |
|--------|---------|------|--------------|----------|
| | | | Type I | Type II |
| 3 | 4 | 20.0 | 3684.330 | 3684.358 |
| 3 | 5 | 25.1 | 3684.331 | 3684.359 |
| 3 | 6 | 30.2 | 3684.332 | 3684.360 |
| 3 | 7 | 35.3 | 3684.333 | 3684.361 |
| 3 | 8 | 40.3 | 3684.334 | 3684.362 |
| 3 | 10 | 50.5 | 3684.335 | 3684.363 |
| 3 | 12 | 60.7 | 3684.336 | 3684.364 |
| 6 | 4 | 20.0 | 3684.337 | 3684.365 |
| 6 | 5 | 25.1 | 3684.338 | 3684.366 |
| 6 | 6 | 30.2 | 3684.339 | 3684.367 |
| 6 | 7 | 35.3 | 3684.340 | 3684.368 |
| 6 | 8 | 40.3 | 3684.341 | 3684.369 |
| 6 | 10 | 50.5 | 3684.342 | 3684.370 |
| 6 | 12 | 60.7 | 3684.343 | 3684.371 |
| 9 | 4 | 20.0 | — | 3684.372 |
| 9 | 8 | 40.3 | — | 3684.373 |

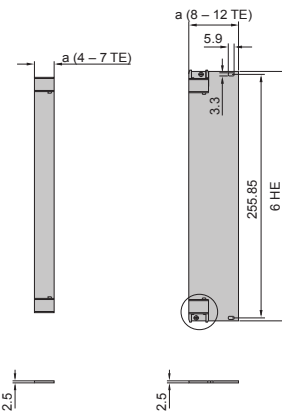
Available with optional metal screw collars.

Front panels with type I, II or IV, IVs, VII extractor handles

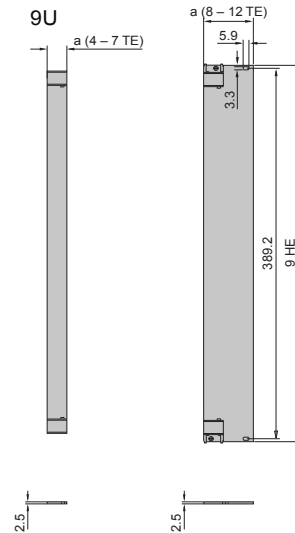
3U



6U



9U

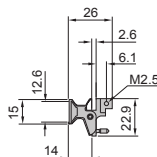


Extractor handles

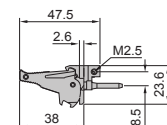
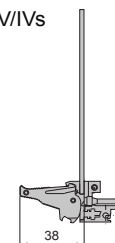
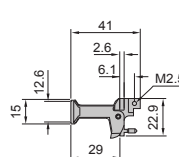
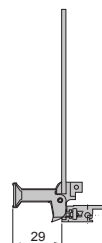
Type I



Type II



Type IV/IVs



Front Panels, Handles

U-channel front panels with type I, II extractor handle or type IV injector handle

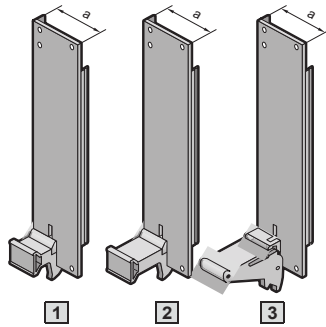
Complete modular systems

Material:

Front panel: Extruded aluminium section, clear-chromated
Handle: Plastic, black

Supply includes:

- 1 front panel,
- 2 handles (1 with 3U),
- 1 EMC gasket, vertical, version 1,
- 1 set of assembly parts,
- 1 PCB holder (for 3U).



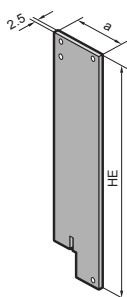
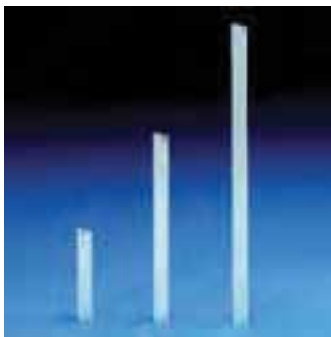
| U | HP | a mm | Model No. RP | | |
|---|----|------|--------------|--------------|----------------------------|
| | | | 1 Type I | 2 Type II | 3 Type IV ¹⁾ |
| 3 | 4 | 20.0 | 3684.344 | 3684.374 | 3684.413 |
| 3 | 5 | 25.1 | 3684.345 | 3684.375 | 3684.414 |
| 3 | 6 | 30.2 | 3684.346 | 3684.376 | 3684.415 |
| 3 | 7 | 35.3 | 3684.347 | 3684.377 | 3684.416 |
| 3 | 8 | 40.3 | 3684.348 | 3684.378 | 3684.417 |
| 3 | 10 | 50.5 | 3684.349 | 3684.379 | 3684.418 |
| 3 | 12 | 60.7 | 3684.350 | 3684.380 | 3684.419 |
| 6 | 4 | 20.0 | 3684.351 | 3684.381 | 3684.420 |
| 6 | 5 | 25.1 | 3684.352 | 3684.382 | 3684.421 |
| 6 | 6 | 30.2 | 3684.353 | 3684.383 | 3684.422 |
| 6 | 7 | 35.3 | 3684.354 | 3684.384 | 3684.423 |
| 6 | 8 | 40.3 | 3684.355 | 3684.385 | 3684.424 |
| 6 | 10 | 50.5 | 3684.356 | 3684.386 | 3684.425 |
| 6 | 12 | 60.7 | 3684.357 | 3684.387 | 3684.426 |
| 9 | 4 | 20.0 | - | 3684.388 | 3684.427 |
| 9 | 5 | 25.1 | - | - | 3684.428 |
| 9 | 6 | 30.2 | - | - | 3684.429 |
| 9 | 7 | 35.3 | - | - | 3684.430 |
| 9 | 8 | 40.3 | - | 3684.389 | 3684.431 |
| 9 | 10 | 50.5 | - | - | 3684.432 |
| 9 | 12 | 60.7 | - | - | 3684.433 |

¹⁾ Can only be inserted in conjunction with front horizontal rails, with 10 mm roof (B)

Available with optional metal screw collars.

Flat front panels for type I, II, IV, IVs or VII handles

Material:
2.5 mm aluminium, anodised



| HP | a mm | Model No. RP | | |
|----|------|--------------|----------|----------|
| | | 3 U (HE) | 6 U (HE) | 9 U (HE) |
| 4 | 20.0 | 3685.500 | 3685.508 | 3685.516 |
| 5 | 25.1 | 3685.501 | 3685.509 | 3685.517 |
| 6 | 30.2 | 3685.502 | 3685.510 | 3685.518 |
| 7 | 35.3 | 3685.503 | 3685.511 | 3685.519 |
| 8 | 40.3 | 3685.504 | 3685.512 | 3685.520 |
| 10 | 50.5 | 3685.505 | 3685.513 | 3685.521 |
| 12 | 60.7 | 3685.506 | 3685.514 | 3685.522 |

Available with optional metal screw collars.

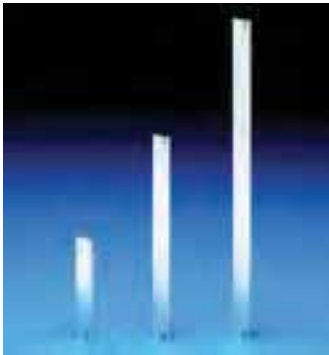
! Also required:

From front panel widths of 4 HP (at 3U) and 7 HP (at 6U):

Collar screws and plastic collars, packs of 100 sets, Model No. RP 3658.160, see page 159.

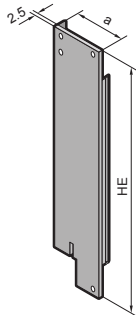
For 3U front panels: PCB holder set, see page 150.

OpenVPX Front Panels, EMC



U-channel front panels for type IV and IVs handles

Material:
2.5 mm extruded aluminium section, clear-chromated.



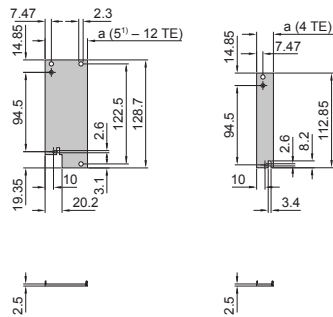
| HP | a mm | Model No. RP | |
|------------------|------|-----------------|------------------|
| | | 3U H = 128.7 | 6U H = 262.05 |
| 4 | 20 | PF30039 | PF60039 |
| 5 | 25.1 | PF30040 | PF60040 |
| 8 | 40.3 | PF30041 | PF60041 |
| 10 | 50.5 | PF30042 | PF60042 |
| RTM Model No. RP | | | |
| 5 | 25.1 | PF30140 | PF60140 |

Part Number Configurator

| | | | | | | | | | | |
|--------------------------|--|---|----|---|---|---|---|---|---|-------------------------|
| PF = Panel Assemblies | PF | U | ID | H | V | S | L | F | G | C |
| U = 3U or 6U | | | | | | | | | | |
| ID = Part No. Identifier | | | | | | | | | | |
| H = Handle | 0 = None | | | | | | | | | |
| | 4 = Type IV | | | | | | | | | |
| | 5 = Type IVs | | | | | | | | | |
| V = Colour | B = Black | | | | | | | | | |
| | G = Grey | | | | | | | | | |
| S = Micro-Switch w cable | 0 = None | | | | | | | | | |
| | 1 = One | | | | | | | | | |
| | 2 = Two | | | | | | | | | |
| | | | | | | | | | | * Only applicable to 6U |
| L = ID Label | 0 = None | | | | | | | | | |
| | 1 = Yes | | | | | | | | | |
| F = Fastening | 0 = Screw(s) only | | | | | | | | | |
| | 1 = Screw(s) + Plastic Collar(s) | | | | | | | | | |
| | 2 = Screw(s) + Metal Collar(s) | | | | | | | | | |
| G = Gasket | 1 = Segmented | | | | | | | | | |
| | 2 = Non-segmented | | | | | | | | | |
| C = Coating | Blank = Chromate | | | | | | | | | |
| | 1 = Anodized Front, Chromate remainder | | | | | | | | | |

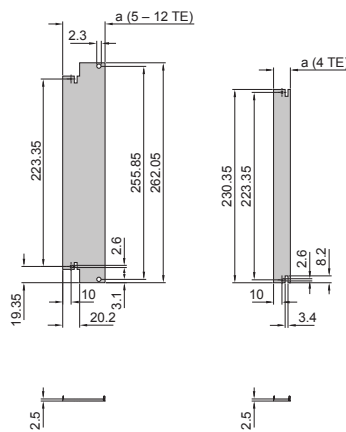
Front panels for type handles

3U

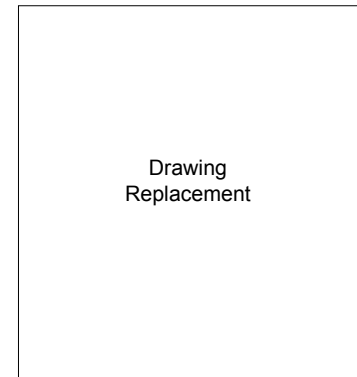


PCB Holder for 3U Panels

6U



6U (5HP)



- 1) 2.3 mm drilled hole not contained in versions 4 - 5 HP.
- 2) Only Type IVs version is recommended for 6U VPX panels.
- 3) 3U sets include 1 PCB holder

Injector/Extractor Handles



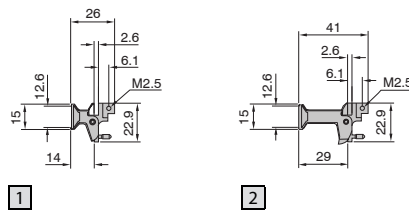
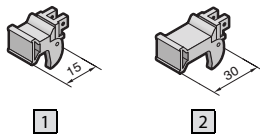
Extractor handle type I and type II

- Suitable for at front panels/ U-channel front panels
- With removal function
- May be used in combination with horizontal rails with 10 mm extension.

Supply includes:
Assembly parts.

Note:

With 3 U, only one extractor handle is required.



1 Type I extractor handle, 15 mm

| Colour | Packs of | Model No. RP |
|--------|----------|--------------|
| Grey | 1 | 3685.587 |
| Black | 1 | 3685.589 |

2 Type II extractor handle, 30 mm

| Colour | Packs of | Model No. RP |
|--------|----------|--------------|
| Grey | 1 | 3685.588 |
| Black | 1 | 3685.590 |

+ Accessories:

Identification strips for extractor handles, see page 143.



Injector/extractor handle type IV

Handles with micro-switch

For inserting and removing connectors with a large number of pins.

- Insertion/removal function
- Integral microswitch for “live insertion” applications
- Self-activation of the micro-switch during insertion/removal
- ESD pin to dissipate static charges before contacting the connectors and for precise positioning of the board type plug-in unit
- Codeable
- Integral PCB attachment
- Self-locking
- Bayable.

Handle without micro-switch

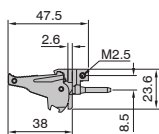
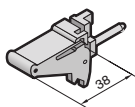
Description see above. Micro-switch, may be retrofitted.

Supply includes:

1 handle without or with micro-switch, assembly parts.

Note:

- Insertion only when used with front horizontal rails, with 10 mm extension (B, B1, B2), see pages 117, 118.
- With 3U front panels, only one extractor handle is required.



Handles with micro-switch

| Colour | Installation | Packs of | Model No. RP |
|--------|--------------|----------|-----------------|
| Grey | top | 1 | 3686.905 |
| Grey | bottom | 1 | 3686.904 |
| Black | top | 1 | 3686.907 |
| Black | bottom | 1 | 3686.906 |

Handle without micro-switch

| Colour | Installation | Packs of | Model No. RP |
|--------|--------------|----------|-----------------|
| Grey | top | 1 | 3686.901 |
| Grey | bottom | 1 | 3686.900 |
| Black | top | 1 | 3686.903 |
| Black | bottom | 1 | 3686.902 |

+ Accessories:

Keys, see page 132.

Keyable guide rails, see page 129.

Micro-switches, see page 145.

Connector pin for baying, see page 143.



Injector/extractor handle type IV

8 HP, bayed

Suitable for 4 HP front panels that must be connected to each other mechanically.

Supply includes:

2 bayed handles, fully assembled.

| Colour | Installation | Packs of | Model No. RP |
|--------|--------------|----------|-----------------|
| Black | bottom | 1 | 3686.908 |
| Black | top | 1 | 3686.909 |

+ Accessories:

Connector pin for baying, see page 143.

OpenVPX Front Panel, With Type IVs Injector/Extractor Handle

Material:

Front Panel: 2.5mm aluminum, extruded, clear chromated

Handle: Plastic / Metal

U = 1.75", TE/HP = 0.2"

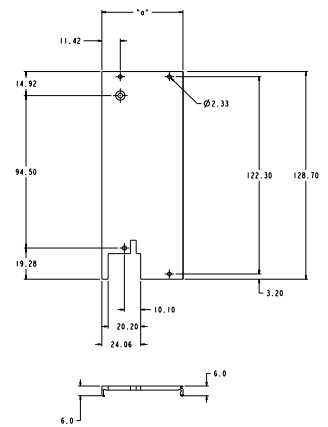
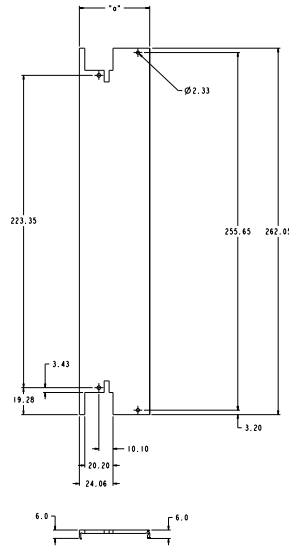
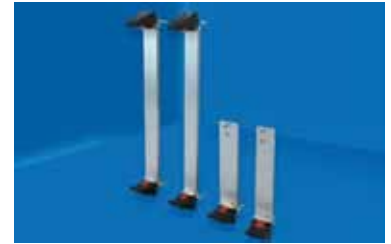
Supply Includes:

1 front panel, 2 Type IVs handle (1 Type IVs handle for 3U)

1 vertical EMC gasket, Type II

1 set of assembly parts

1 PCB holder (for 3U)



| U | TE (HP) | H mm | a mm | b mm | Part Numbers |
|---|---------|--------|------|-------|--------------|
| 3 | 4 | 128.7 | 20.0 | 7.47 | 9922504 |
| 3 | 5 | 128.7 | 25.1 | 7.47 | 9922505 |
| 6 | 4 | 262.05 | 20.0 | 11.35 | 9922507 |
| 6 | 5 | 262.05 | 25.1 | 11.35 | 9922508 |

8HP, 10HP, and 12HP also available standard, consult Sales



Identification strips

for type I, II extractor handle and type IV injector/extractor handle
Width 4 HP

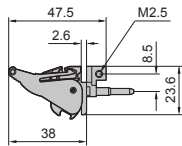
| Packs of | Model No. RP |
|----------|--------------|
| 100 | 3684.328 |



Injector/extractor handle type IVs with push-button

For inserting and removing connectors with a large number of pins. A metal insert ensures reliable functioning, even at forces of up to 815 N.

- Insertion/removal function
- Push-button for locking and unlocking the board type plug-in unit (cannot be extracted in the locked position)
- Optionally with 1/2 HP offset PCB attachment, e.g. for component mounting on both sides
- Optional integral micro-switch for "live insertion" applications
- ESD pin to dissipate static charges before contacting the connectors and for precise positioning of the board type plug-in unit
- Codeable
- Integral PCB attachment
- Bayable.



Material:
Plastic/metal

Supply includes:
Assembly parts.

Note:

- Insertion only when used with front horizontal rails, with 10 mm extension (B),
- With 3 U front panels, only one extractor handle is required.

Handles without offset

| Installation | Packs of | Model No. RP |
|--------------|----------|--------------|
| top | 1 | 3688.770 |
| bottom | 1 | 3688.771 |

Handles with 1/2 HP offset

| Installation | Packs of | Model No. RP |
|--------------|----------|--------------|
| top | 1 | 3688.772 |
| bottom | 1 | 3688.773 |

Accessories:

- Keys, see page 132.
- Keyable guide rails, see page 129.
- Keyable guide rails with 1/2 HP offset, see page 129.
- Micro-switches, see page 145.
- Connector pin for buying, see page 143.



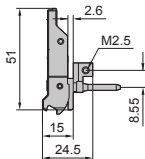
Connection pin for injector/extractor handles, types IV, IVs and VII

The connection pin can be used to connect injector/extractor handles, types IV, IVs and VII.

Material:
Steel

| Packs of | Model No. RP |
|----------|--------------|
| 20 | 3685.319 |

Injector/Extractor Handles



Injector/extractor handle type VII

Plastic (telecom)

For inserting and removing connectors with a large number of pins. This handle was specifically designed for use in telecom applications.

- Insertion/removal function
- Optionally with 1/2 HP offset PCB attachment, e.g. for component mounting on both sides
- Minimum front space requirements, due to fold-up handle
- Codeable
- Optional integral micro-switch for "live insertion" applications
- ESD pin to dissipate static charges prior to making contact with the connectors and for precise positioning of the board type plug-in unit
- Large labelling area on the front.

Material:
Plastic

Supply includes:
Assembly parts.

Note:
Insertion only when used with front horizontal rails, with 10 mm extension (B),

Handles without offset

| Installation | Packs of | Model No. RP |
|--------------|----------|--------------|
| top | 1 | 3688.784 |
| bottom | 1 | 3688.785 |

Handles with 1/2 HPoffset

| Installation | Packs of | Model No. RP |
|--------------|----------|--------------|
| top | 1 | 3688.780 |
| bottom | 1 | 3688.781 |



Accessories:

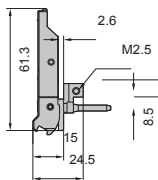
Keys, see page 132.

Keyable guide rails, see page 129.

Keyable guide rails with 1/2 HP offset, see page 129.

Micro-switches, see page 145.

Connector pin for buying, see page 143.



Injector/extractor handle type VII

Metal (telecom)

For inserting and removing connectors with a large number of pins (up to 815 N). This handle was specifically designed for use in telecom applications.

- Insertion/removal function
- Optionally with 1/2 HP offset PCB attachment, e.g. for component mounting on both sides
- Minimum front space requirements, due to fold-up handle
- Codeable
- Optional integral micro-switch for "live insertion" applications
- ESD pin to dissipate static charges prior to making contact with the connectors and for precise positioning of the board type plug-in unit
- Metal design for use in aggressive atmospheres.

Material:
Die-cast zinc

Supply includes:
Assembly parts.

Note:
Insertion only when used with front horizontal rails, with 10 mm extension (B),

Handles without offset

| Installation | Packs of | Model No. RP |
|--------------|----------|--------------|
| top | 1 | 3688.790 |
| bottom | 1 | 3688.791 |

Handles with 1/2 HPoffset

| Installation | Packs of | Model No. RP |
|--------------|----------|--------------|
| top | 1 | 3688.786 |
| bottom | 1 | 3688.787 |



Accessories:

Keys, see page 132.

Keyable guide rails, see page 129.

Keyable guide rails with 1/2 HP offset, see page 129.

Micro-switches, see page 145.

Connector pin for buying, see page 143.



Micro-switch

For "live insertion" applications. Installation in injector/extractor handles, types IV, IVs and VII. May also be retrofitted.

Technical specifications:
Switching load: 50 mA 30 V DC
Service life/switching cycles:
At nominal load: 30,000
mechanical: 50,000

| Packs of | Model No. RP |
|----------|--------------|
| 10 | 3684.410 |



Also required:

Micro-switch mounting clip, see page 145.



Micro-switch

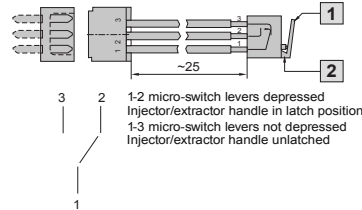
with cable and connector

For "live insertion" applications. Installation in injector/extractor handles, types IV, IVs and VII.

Supply includes:

Micro-switch, connector type Molex 51021-0300, mounting clips, 3 cables, 25 mm x #32 AWG, fully assembled.

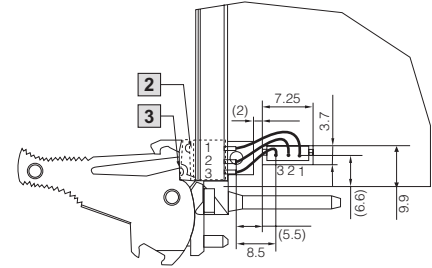
- 1 Lever not depressed
- 2 Lever hinge
- 3 Lever contact point



| | |
|----------|---------------------|
| Packs of | Model No. RP |
| 1 set | 3686.536 |

! Also required:

Micro-switch mounting clip, see page 145.



Micro-switch mounting clip

For mounting micro-switches in handles.

| | |
|----------|---------------------|
| Packs of | Model No. RP |
| 10 | 3684.411 |



Plastic covers

for PCBs

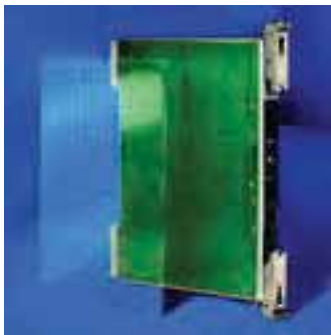
For mechanical protection of the component side and of the EMC gaskets. Attachment holes as per cPCI or VME-specifications. Optionally available as perforated or solid version.

Material:

0.3 mm plastic, anti-static
Maximum temperature up to 65°C

¹⁾ 0.5 mm plastic, transparent, anti-static
UL 94-V0, maximum temperature up to 65°C

²⁾ 0.5 mm plastic, black, anti-static UL 94-V0,
maximum temperature up to 120°C



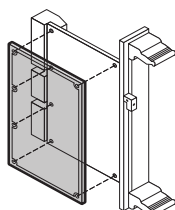
| For PCBs | Packs of | Model No. RP | | | |
|-------------|----------|------------------------------|------------------------------|-----------------|-----------------|
| | | for cPCI | | for VME | |
| | | perforated ¹⁾ | solid ¹⁾ | solid | solid |
| 3U x 160 mm | 1 | 3687.932 | 3686.572 | 3685.966 | 3685.626 |
| | 5 | — | — | — | 3685.279 |
| 3U x 220 mm | 1 | — | — | — | 3685.805 |
| | 5 | — | — | — | 3685.266 |
| 6U x 80 mm | 1 | 3687.933 | 3686.573 | 3686.037 | 3686.146 |
| 6U x 160 mm | 1 | 3687.934 | 3686.574 | 3685.967 | 3685.627 |
| | 5 | 9905.574²⁾ | 9905.990²⁾ | — | — |
| | 5 | — | — | — | 3685.280 |
| 6U x 220 mm | 1 | — | — | — | 3685.824 |
| | 5 | — | — | — | 3685.000 |

! Also required:

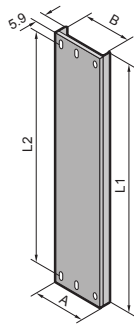
Required for mounting the perforated cPCI covers:

Mounting clips

| | |
|----------|---------------------|
| Packs of | Model No. RP |
| 100 | 3687.955 |



Front Panels, Handles

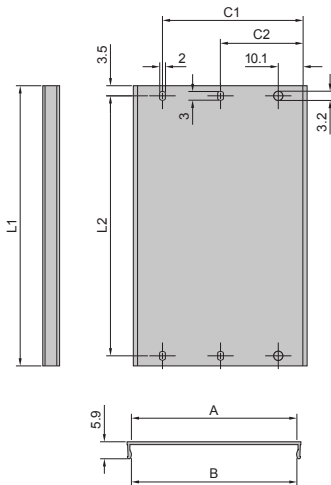


Front panels for type III extractor handle

Material:
1.0 mm extruded aluminium section

Surface finish:
Untreated

| HP | A mm | W (B) mm | C1 mm | C2 mm | Model No. RP | | |
|-------|---------|-------------|----------|----------|-----------------|-----------------|-----------------|
| | | | | | 3U | 6U | 9U |
| 3 | 15.20 | 12.20 | - | - | 3685.548 | 3685.555 | - |
| 4 | 20.22 | 17.20 | - | - | 3685.549 | 3685.556 | 3685.562 |
| 5 | 25.28 | 22.28 | - | 22.68 | 3685.550 | 3685.557 | 3685.563 |
| 6 | 30.36 | 27.36 | - | 25.22 | 3685.551 | 3685.558 | 3685.564 |
| 8 | 40.52 | 37.52 | - | 30.30 | 3685.552 | 3685.559 | 3685.566 |
| 10 | 50.68 | 47.68 | 40.46 | 25.22 | 3685.553 | 3685.560 | 3685.567 |
| 12 | 60.84 | 57.84 | 50.62 | 30.30 | 3685.554 | 3685.561 | 3685.568 |
| L1 mm | | | | | 97.00 | 230.35 | 363.70 |
| L2 mm | | | | | 90.00 | 223.35 | 356.70 |

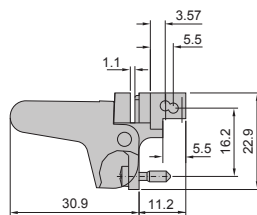
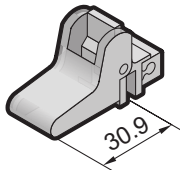


Type III handle, extractor

Material:
Fibreglass-reinforced polycarbonate
Base section nickel-plated ABS

Colour:
Grey

| HP | Packs of | Model No. RP |
|----|----------|-----------------|
| 3 | 1 | 3685.591 |
| 4 | 1 | 3685.592 |



Covers for panel and spaces

Material:
Fibreglass-reinforced polycarbonate

| HP | Width mm | Packs of | Model No. RP |
|----|----------|----------|-----------------|
| 1 | 5 | 1 | 3687.529 |
| 2 | 10.08 | 1 | 3687.530 |
| 4 | 20.24 | 1 | 3687.531 |



Universal holder

for front panel support

Material:
Nickel-plated plastic

| HP | Packs of | Model No. RP |
|----|----------|--------------|
| 4 | 1 | 3687.545 |



Flat front panels

with type V handle and PCB holder
Complete modular systems

Material:
Front panel: 2.5 mm aluminium, natural anodised
Handle: aluminium, natural anodised
PCB holder: polycarbonate

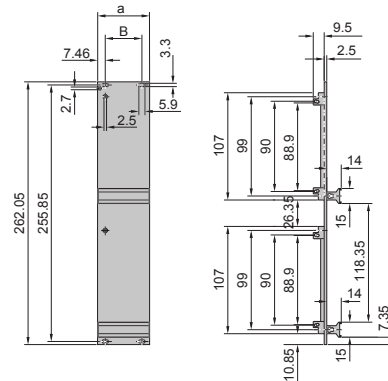
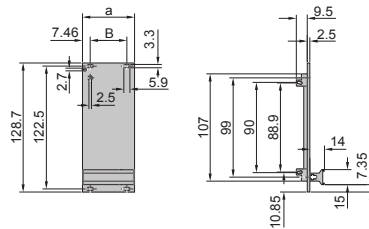
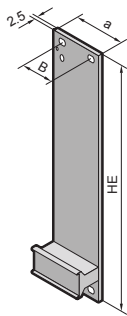
Supply includes:
1 front panel,
1 handle (2 with 6 U),
1 PCB holder (2 with 6 U),
assembly parts.

| HP | a mm | W (B) mm | Model No. RP | |
|----|------|----------|-----------------|------------------|
| | | | 3U H = 128.7 | 6U H = 262.05 |
| 3 | 14.9 | - | 3652.000 | 3652.200 |
| 4 | 20.0 | - | 3652.010 | 3652.210 |
| 5 | 25.1 | - | 3652.020 | 3652.220 |
| 6 | 30.1 | - | 3652.030 | 3652.230 |
| 7 | 35.2 | - | 3652.040 | 3652.240 |
| 8 | 40.3 | - | 3652.050 | 3652.250 |
| 10 | 50.5 | 35.6 | 3652.060 | 3652.260 |
| 12 | 60.6 | 45.7 | 3652.070 | 3652.270 |
| 14 | 70.8 | 55.9 | 3652.080 | - |

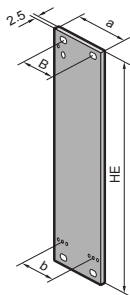
Available with optional metal screw collars.

+ Accessories:

Identification strips for handles,
see page 149.

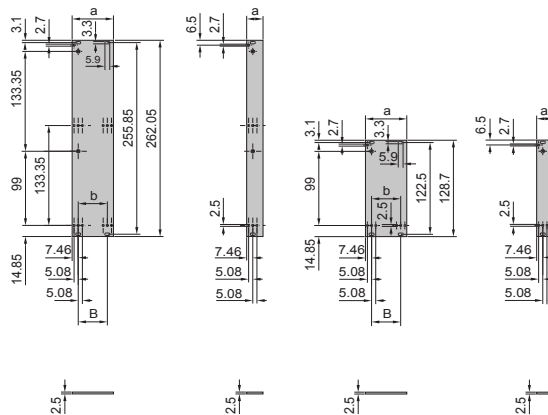


Front Panels, Handles



Flat front panels for type V and VI handle

Material:
2.5 mm aluminium, anodised



| HP | a mm | W (B) mm | b mm | Packs of | Model No. RP | |
|----|------|----------|------|----------|--------------|----------|
| | | | | | 3U | 6U |
| 3 | 14.9 | – | – | 1 | 3685.569 | 3685.578 |
| 4 | 20.0 | – | – | 1 | 3685.570 | 3685.579 |
| 5 | 25.1 | – | – | 1 | 3685.571 | 3685.580 |
| 6 | 30.2 | – | 15.2 | 1 | 3685.572 | 3685.581 |
| 7 | 35.2 | – | 20.3 | 1 | 3685.573 | 3685.582 |
| 8 | 40.3 | – | 25.4 | 1 | 3685.574 | 3685.583 |
| 10 | 50.5 | 35.6 | 35.6 | 1 | 3685.575 | 3685.584 |
| 12 | 60.6 | 45.7 | 45.7 | 1 | 3685.576 | 3685.585 |
| 14 | 70.8 | 55.9 | 55.9 | 1 | 3685.577 | 3685.586 |

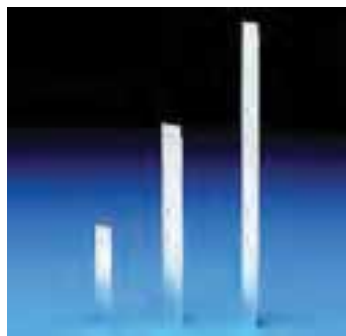
Available with optional metal screw collars.

! Also required:

Collar screws and plastic collars, packs of 100 sets, Model No. RP 3658.160, see page 159.

+ Accessories:

Handles type V, see page 149.
Handles type VI, see page 150.



U-channel front panels for type V and VII handle

Material:
2.5 mm aluminium, clear-chromated

Supply includes:
1 vertical EMC gasket, version 1.



| HP | a mm | W (B) mm | Packs of | Model No. RP | |
|----|------|----------|----------|--------------|----------|
| | | | | 3U | 6U |
| 4 | 20.0 | – | 1 | 3687.655 | 3687.660 |
| 6 | 30.2 | – | 1 | 3687.656 | 3687.661 |
| 8 | 40.3 | – | 1 | 3687.657 | 3687.662 |
| 10 | 50.5 | 35.6 | 1 | 3687.658 | 3687.663 |
| 12 | 60.6 | 45.7 | 1 | 3687.659 | 3687.664 |

! Also required:

Slotted centering screws, packs of 100, Model No. RP 3687.050, Posidrive centering screws, see page 160.
packs of 100, Model No. RP 3687.051, see page 160.

+ Accessories:

Handles type V, see page 149.
Handles type VI, see page 150.

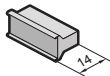
Front Panels, Handles



Type V handle

Plastic

Material:
Plastic



| HP | Colour | Packs of | Model No. RP |
|----|--------|----------|--------------|
| 3 | Grey | 1 | 3685.490 |
| 4 | Grey | 1 | 3685.491 |
| 8 | Grey | 1 | 3685.492 |
| 12 | Grey | 1 | 3685.493 |
| 20 | Grey | 1 | 3685.494 |
| 3 | Black | 1 | 3685.495 |
| 4 | Black | 1 | 3685.496 |
| 8 | Black | 1 | 3685.497 |
| 12 | Black | 1 | 3685.498 |
| 20 | Black | 1 | 3685.499 |



Also required:

Mounting kit,
packs of 1 set, Model No. RP 3687.519
see page 159.

**Identification strips
for type V handle, plastic
self-adhesive**

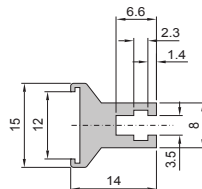
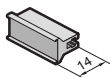
| HP | Packs of | Model No. RP |
|----|----------|--------------|
| 24 | 1 | 3687.693 |



Type V handle

Aluminium

Material:
Aluminium, anodised.



| HP | Model No. RP | HP | Model No. RP |
|----|--------------|-----|--------------|
| 3 | 3685.595 | 12 | 3685.602 |
| 4 | 3685.596 | 14 | 3685.603 |
| 5 | 3685.597 | 21 | 3685.761 |
| 6 | 3685.598 | 28 | 3685.762 |
| 7 | 3685.599 | 42 | 3685.763 |
| 8 | 3685.600 | 1 m | 3685.604 |
| 10 | 3685.601 | | |



Custom lengths available.



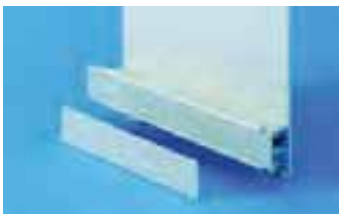
Also required:

Mounting kit, see page 160.
packs of 1 set, Model No. RP 3687.146,
(from 6 HP 2 packs required), see page 160.

**Identification strips
for type V handle, aluminium**

For individual labelling of the handles.

Material:
0.5 mm aluminium, anodised

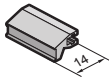


| HP | Packs of | Model No. RP |
|-------|----------|--------------|
| 3 | 1 | 3685.746 |
| 4 | 1 | 3685.747 |
| 5 | 1 | 3685.748 |
| 6 | 1 | 3685.749 |
| 7 | 1 | 3685.750 |
| 8 | 1 | 3685.751 |
| 10 | 1 | 3685.752 |
| 12 | 1 | 3685.753 |
| 14 | 1 | 3685.754 |
| 21 | 1 | 3685.755 |
| 28 | 1 | 3685.756 |
| 42 | 1 | 3685.757 |
| 1 m | 1 | 3685.758 |
| 0.5 m | 5 | 3606.300 |



Custom lengths available.

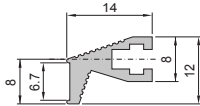
Front Panels, Handles



Type VI handle

Aluminium

Material:
Aluminium, anodised



| HP | Model No. RP | HP | Model No. RP |
|----|--------------|-----|-----------------|
| 3 | 3685.605 | 12 | 3685.612 |
| 4 | 3685.606 | 14 | 3685.613 |
| 5 | 3685.607 | 21 | 3685.614 |
| 6 | 3685.608 | 28 | 3685.615 |
| 7 | 3685.609 | 42 | 3685.616 |
| 8 | 3685.610 | 84 | 3685.617 |
| 10 | 3685.611 | 1 m | 3685.618 |

Custom lengths available.

! Also required:

Mounting kit
packs of 1 set, Model No. RP 3687.146
(from 6 HP 2 packs required),
see page 160.



PCB holder kit

For attaching the PCB to front panels with handle types I, II, IV, IVs, VII.

Material:
Die-cast

Note:
Only required at the top with 3U front panels.

| Packs of | Model No. RP |
|----------|-----------------|
| 10 | 3685.198 |

! Also required:

For securing PCBs to PCB holders:
Pan-head screws
packs of 100, Model No. RP 3654.320,
see page 159.
For attaching the front panel to the PCB holder:
Oval head screw
packs of 100, Model No. RP 3685.282,
see page 160.



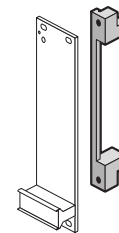
PCB holder

For front panels
For attaching PCBs to front panels
(handle type V, VI).

Material:
Noryl

Supply includes:
Assembly parts.

| Packs of | Model No. RP |
|----------|-----------------|
| 10 | 3606.330 |



Air Slot Blocker Boards - OpenVPX

Material: Aluminum
Supply includes: Assembly parts

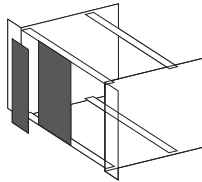
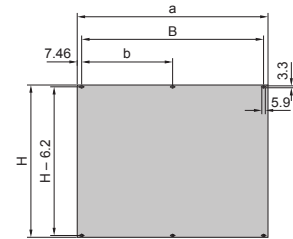
| Size | Description | Part Number |
|----------|--|-------------|
| 3U x 5HP | Air flow blocker with Type IVs handle | PA00001 |
| 3U x 5HP | Air flow blocker without handle | PA00003 |
| 6U x 5HP | Air flow blocker with Type IVs handles | PA00020 |
| 6U x 5HP | Air flow blocker without handle | PA00004 |



**Front panels
as filler panel, flat**

Material:
2.5 mm aluminium

Clear chromate
Supply includes:
Posidrive centering screws



| HP | a mm | W (B) mm | b mm | Model No. RP | | | | | | |
|----|---------|-------------|---------|-----------------|------------------|------------------|------------------|------------------|-----------------|-----------------|
| | | | | 1 U H = 39.8 | 2 U H = 84.25 | 3 U H = 128.7 | 4U H = 173.15 | 6U H = 262.05 | 7U H = 306.5 | 9U H = 395.4 |
| 2 | 9.8 | - | - | - | - | 3684.889 | - | 3684.911 | - | 3684.738 |
| 3 | 14.9 | - | - | - | - | 3684.890 | - | 3684.912 | - | - |
| 4 | 20.0 | - | - | - | - | 3684.891 | - | 3684.913 | - | 3684.739 |
| 5 | 25.1 | - | - | - | - | 3684.892 | - | 3684.914 | - | - |
| 6 | 30.1 | - | - | - | - | 3684.893 | - | 3684.915 | - | - |
| 7 | 35.2 | - | - | - | - | 3684.894 | - | 3684.916 | - | - |
| 8 | 40.3 | - | - | - | - | 3684.895 | - | 3684.917 | - | 3684.740 |
| 10 | 50.5 | 35.6 | - | - | - | 3684.896 | - | 3684.918 | - | - |
| 12 | 60.6 | 45.7 | - | - | - | 3684.897 | - | 3684.919 | - | 3684.741 |
| 14 | 70.8 | 55.9 | - | - | - | 3684.898 | - | 3684.920 | - | - |
| 20 | 101.3 | 86.4 | - | - | - | 3684.899 | - | 3684.921 | - | - |
| 21 | 106.4 | 91.4 | - | - | 3685.350 | 3684.900 | - | 3684.922 | - | - |
| 24 | 121.7 | 106.7 | - | - | 3685.429 | - | - | - | - | - |
| 27 | 136.8 | 121.9 | - | - | - | 3684.901 | - | 3684.923 | - | - |
| 28 | 141.9 | 127.0 | - | - | - | 3684.902 | - | 3684.924 | - | - |
| 40 | 202.9 | 188.0 | - | - | - | 3684.903 | - | 3684.976 | - | 3684.977 |
| 42 | 213.0 | 198.1 | - | 3684.885 | 3684.887 | 3684.904 | 3684.908 | 3684.925 | 3684.928 | 3684.742 |
| 60 | 304.5 | 289.6 | - | - | - | 3684.905 | - | - | - | - |
| 63 | 319.7 | 304.8 | 152.4 | - | - | 3684.906 | 3684.909 | 3684.926 | 3684.929 | - |
| 84 | 426.4 | 411.5 | 203.2 | 3684.886 | 3684.888 | 3684.907 | 3684.910 | 3684.927 | 3684.930 | 3684.743 |
| 85 | 431.5 | 431.5 | 203.2 | - | - | 3684.744 | 3684.745 | 3684.746 | 3684.747 | 3684.748 |

Other variants available upon request.

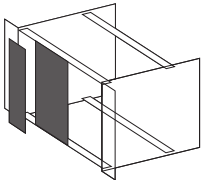
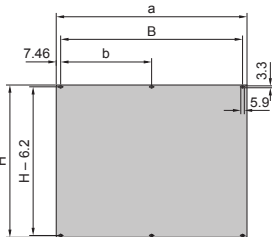
OpenVPX Front Filler Panels, Flat



Front panels as filler panel, flat

Material:
2.5 mm aluminium

Clear chromate
Supply includes:
Posidrive centering screws



| HP | a mm | W (B) mm | b mm | Model No. RP | |
|----|-------|----------|-------|-----------------|------------------|
| | | | | 3U H = 128.7 | 6U H = 262.05 |
| 4 | 20 | -- | -- | PF30001 | PF60001 |
| 5 | 25.1 | -- | -- | PF30002 | PF60002 |
| 9 | 45.4 | -- | -- | PF30003 | PF60003 |
| 10 | 50.5 | 35.6 | -- | PF30004 | PF60004 |
| 15 | 75.9 | 61 | -- | PF30005 | PF60005 |
| 20 | 101.3 | 86.4 | -- | PF30006 | PF60006 |
| 24 | 121.7 | 106.7 | -- | PF30007 | PF60007 |
| 25 | 126.7 | 111.8 | -- | PF30008 | PF60008 |
| 29 | 147 | 132.1 | -- | PF30009 | PF60009 |
| 30 | 152.1 | 137.2 | -- | PF30010 | PF60010 |
| 35 | 177.5 | 162.6 | -- | PF30011 | PF60011 |
| 40 | 202.9 | 188 | 94 | PF30012 | PF60012 |
| 45 | 228.3 | 213.4 | 106.6 | PF30013 | PF60013 |
| 50 | 253.7 | 238.8 | 119.4 | PF30014 | PF60014 |
| 55 | 279.1 | 264.2 | 132 | PF30015 | PF60015 |
| 60 | 304.5 | 289.6 | 144.8 | PF30016 | PF60016 |
| 65 | 329.9 | 315 | 157.6 | PF30017 | PF60017 |
| 70 | 355.3 | 340.4 | 170.2 | PF30018 | PF60018 |
| 75 | 380.7 | 365.8 | 183 | PF30019 | PF60019 |

Other variants available upon request.

Part Number Configurator

PF = Panel Fillers _____ PF U ID F C

U = 3U or 6U _____

ID = Part No. Identifier _____

F = Fastening 0 = Screw(s) only _____

 1 = Screw(s) + Plastic Collar(s) _____

 2 = Screw(s) + Metal Collar(s) _____

C = Coating Blank - Chromate _____

 1 = Anodized Front, Chromate remainder _____

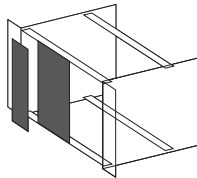
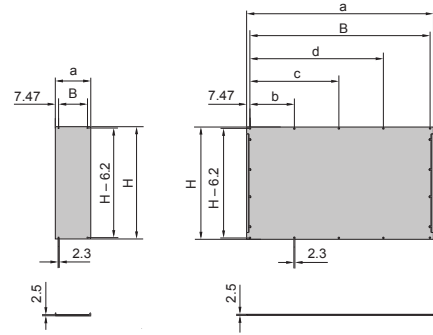
OpenVPX Front Panels, EMC



Front panels as filler panels, U-shaped

Material:
2.5 mm extruded aluminium section, clear-chromated

Supply includes:
1 front panel, one-piece (with 2 – 14 HP version) or three-piece (with > 14 HP version),
1 vertical EMC gasket, version 1,
1 contact strip (three-part only)
1 gasket strip (three-part only).



| HP | a mm | W (B) mm | b mm | c mm | Model No. RP | |
|----|-------|----------|-------|-------|-----------------|------------------|
| | | | | | 3U H = 128.7 | 6U H = 262.05 |
| 4 | 20 | -- | -- | -- | PF30020 | PF60020 |
| 5 | 25.1 | -- | -- | -- | 9922506 | 9922509 |
| 5 | 25.1 | -- | -- | -- | PF30021 | PF60021 |
| 9 | 45.4 | -- | -- | -- | PF30022 | PF60022 |
| 10 | 50.5 | 35.6 | -- | -- | PF30023 | PF60023 |
| 15 | 75.9 | 61 | -- | -- | PF30024 | PF60024 |
| 20 | 101.3 | 86.4 | -- | -- | PF30025 | PF60025 |
| 24 | 121.7 | 106.7 | -- | -- | PF30026 | PF60026 |
| 25 | 126.7 | 111.8 | -- | -- | PF30027 | PF60027 |
| 29 | 147 | 132.1 | -- | -- | PF30028 | PF60028 |
| 30 | 152.1 | 137.2 | -- | -- | PF30029 | PF60029 |
| 35 | 177.5 | 162.6 | -- | -- | PF30030 | PF60030 |
| 40 | 202.9 | 188 | 91.6 | -- | PF30031 | PF60031 |
| 45 | 228.3 | 213.4 | 106.6 | -- | PF30032 | PF60032 |
| 50 | 253.7 | 238.8 | 119.4 | -- | PF30033 | PF60033 |
| 55 | 279.1 | 264.2 | 132 | -- | PF30034 | PF60034 |
| 60 | 304.5 | 289.6 | 96.6 | 192.8 | PF30035 | PF60035 |
| 65 | 329.9 | 315 | 105 | 210 | PF30036 | PF60036 |
| 70 | 355.3 | 340.4 | 113.4 | 126.8 | PF30037 | PF60037 |
| 75 | 380.7 | 365.8 | 121.8 | 243.6 | PF30038 | PF60038 |

Other variants available upon request.

Part Number Configurator

PF U ID F G C

PF = Panel Fillers _____

U = 3U or 6U _____

ID = Part No. Identifier _____

F = Fastening _____
 0 = Screw(s) only _____
 1 = Screw(s) + Plastic Collar(s) _____
 2 = Screw(s) + Metal Collar(s) _____

G = Gasket _____
 1 = Version 1 _____
 2 = Version 2 _____

C = Coating _____
 Blank = Chromate _____
 1 = Anodized Front, Chromate remainder _____

Front Panels, Handles

Photo coming soon

VPX Air Blocker Slots

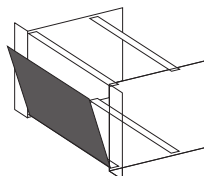
Air blockers used to redirect and/or contain airflow in a VPX system platform. Versions are available in 3U and 6U and with or without handles.

| Size | With Handles | Description | Model Number |
|------|--------------|--|--------------|
| 3U | YES | Filler Air Blocker 3Ux5HPx160mm VPX EMC Type IVs | PA00001 |
| 6U | YES | Filler Air Blocker 6Ux5HPx160mm VPX EMC Type IVs | PA00002 |
| 3U | NO | Filler Air Blocker 3Ux5HPx160mm VPX EMC | PA00003 |
| 6U | NO | Filler Air Blocker 6Ux5HPx160mm VPX EMC | PA00004 |

Front panels hinged

Material:
2.5 mm Aluminium, anodised

Supply includes:
1 set of hinges,
assembly parts.



| U | HP | Model No. RP | |
|---|------------------|-------------------|---------------------|
| | | vertically hinged | horizontally hinged |
| 3 | 42 ¹⁾ | 3652.600 | 3652.500 |
| 3 | 84 ¹⁾ | 3652.610 | 3652.510 |
| 3 | 85 | – | 3684.291 |
| 4 | 85 | – | 3684.292 |
| 6 | 42 ¹⁾ | 3652.620 | 3652.520 |
| 6 | 84 ¹⁾ | 3652.630 | 3652.530 |
| 6 | 85 | – | 3684.293 |
| 7 | 85 | – | 3684.294 |
| 9 | 85 | – | 3684.295 |

Custom sizes available upon request.

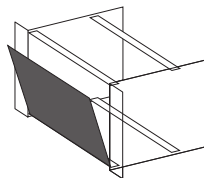
Also required:

¹⁾ With rear mounting of 42 HP and 84 HP front panels, additional trim sections must be attached at the rear of the subrack. Trim sections, see page 112.

EMC front panels hinged

Material:
2.5 mm aluminium,
clear-chromated

Supply includes:
1 front panel,
1 set of hinges,
1 contact strip,
1 gasket strip,
1 vertical EMC gasket, version 1,
assembly parts.



EMC

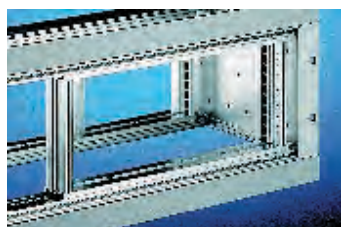
| U | HP | Model No. RP horizontally hinged |
|---|----|-------------------------------------|
| 3 | 84 | 3684.298 |
| 4 | 84 | 3684.299 |
| 6 | 84 | 3684.300 |
| 7 | 84 | 3684.301 |
| 9 | 84 | 3684.302 |

Custom sizes available upon request.

Door cut-out trim for subracks

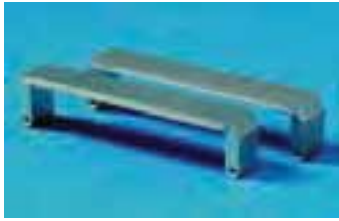
Material:
Aluminium

| Width | Packs of | Model No. UN |
|-------------------|----------|-----------------|
| 269.2 mm (1½ 19") | 2 | 3634.060 |
| 482.6 mm (19") | 2 | 3634.070 |



Front Panels: for Subracks

Handles: for Subracks



Mezzanine front panels
Extruded aluminium section

For PCI mezzanine cards (PMC).

Conforms to IEEE 1386

Material/surface finish:

Extruded aluminium section, clear-chromated

| Packs of | Model No. RP |
|----------|--------------|
| 1 | 3688.658 |

+ Accessories:

EMC seals,
see page 154.
Assembly screws M2.5 x 6
packs of 100, Model No. RP 3654.340,
see page 159.



Mezzanine front panels
Die-cast zinc

For PCI mezzanine cards (PMC).

Conforms to IEEE 1386

Material:

Die-cast zinc

| Packs of | Model No. RP |
|----------|--------------|
| 1 | 3688.659 |

+ Accessories:

EMC seals,
see page 154.
Assembly screws M2.5 x 6
packs of 100, Model No. RP 3654.340,
see page 159.



Support spacers

for mezzanine cards

10 mm, for mounting mezzanine cards.

| Packs of | Model No. RP |
|----------|--------------|
| 1 | 3688.663 |



Covers
for mezzanine cut-outs

To conceal unused mezzanine cut-outs.
The covers are simply clipped into the cut-outs.

Material:

Stainless steel

| Packs of | Model No. RP |
|----------|--------------|
| 1 | 3688.660 |



EMC seals
for mezzanine front panels

can be inserted into the all-round channel of the mezzanine front panels.

Material/surface finish:

Sealing ring made of 1.1 mm conductive carbon filled silicon, sealing gasket made from 0.18 mm (0.9 mm coil) stainless steel.

| Design | Packs of | Model No. RP |
|----------------|----------|--------------|
| Sealing ring | 1 | 3688.661 |
| Sealing gasket | 1 | 3688.662 |

Ripac Box Type Plug-In Units - Individual Components



Vertical drive chassis

For the installation of drives or CD-ROMs. May be installed in all Ripac subracks.

- Optionally prepared for EMC or non-EMC
- Accomodation for 3 1/2" or 5 1/4" drives or CD-ROM, vertical
- Front panel and support plate integrated

Material:

Front panel: 2.5 mm aluminium
Support plate: Aluminium

Surface finish:

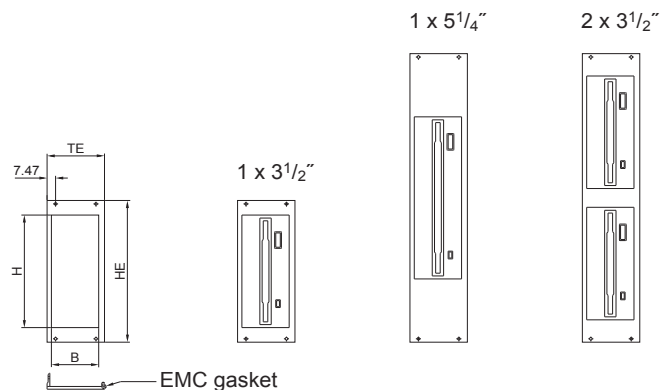
Clear-chromated



Supply includes:

1 front panel with support plate
1 EMC gasket (with EMC modules) assembly parts.

| Installation drives | Front panel | | Depth of drive approx. mm | Front panel cut-out | | Model No. RP | |
|---------------------|-------------|---------|---------------------------|---------------------|--------------|-----------------|-----------------|
| | U (HE) | HP (TE) | | Height (H) mm | Width (B) mm | EMC | Non-EMC |
| 1 x 3 1/2" | 3 | 8 | 160 | 102 | 26 | 3684.469 | 3685.078 |
| 1 x 5 1/4" | 6 | 10 | 220 | 147 | 41.5 | 3684.481 | 3685.090 |
| 1 x 3 1/2" | 3 | 8 | 160 | – | – | – | 3685.091 |
| | 3 | 10 | 160 | – | – | – | 3685.092 |
| 2 x 3 1/2" | 6 | 8 | 160 | – | – | – | 3685.095 |
| | 6 | 10 | 160 | – | – | – | 3685.096 |



Guide rails for drive chassis

For routing drive chassis in the subrack.

Material:

Aluminium

Supply includes:

Alignment pin.

| For installation depth mm | Packs of | Model No. RP |
|---------------------------|----------|-----------------|
| 160 | 1 | 3686.989 |

Note:

Two guide rails are required for each drive chassis. Guide rail 4.4" for plastic drives, see page 130.



Also required:

Assembly screws
packs of 100, Model No. RP 3654.340, see page 159.



PCB holder for box type plug-in units

For fastening PCBs in box type plug-in units.

Material:

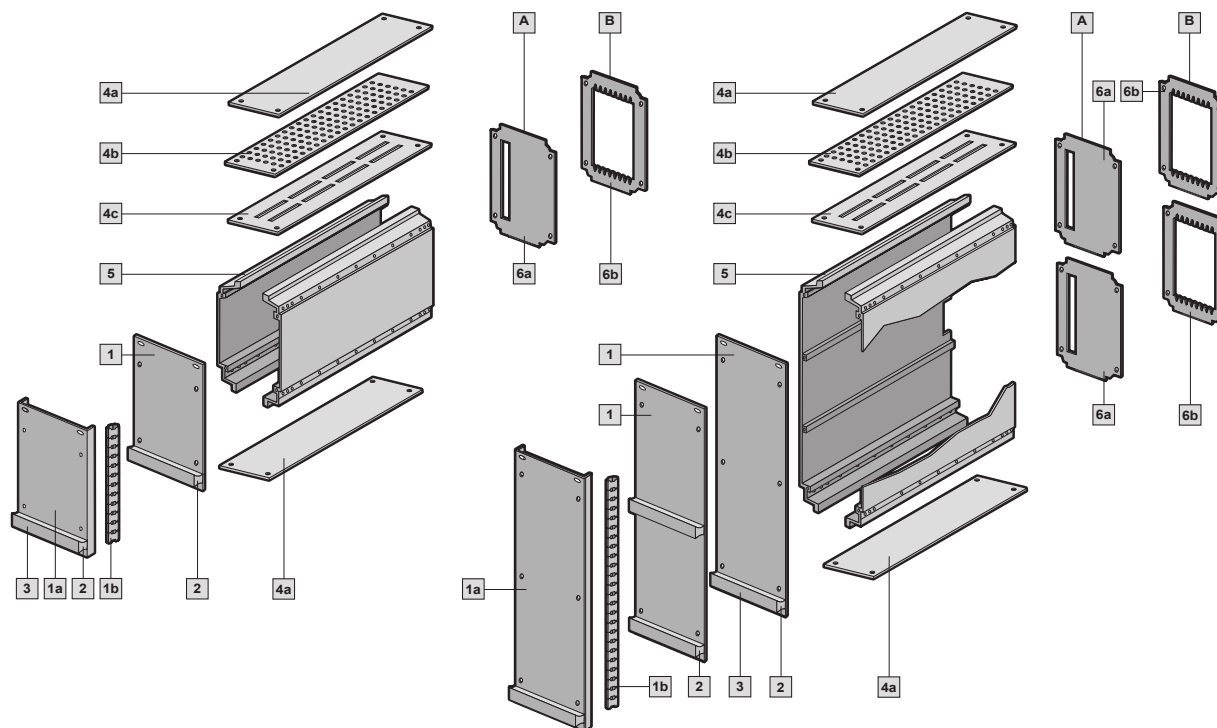
PBTP, basic material to UL94-V0

Supply includes:

Assembly parts.

| Packs of | Model No. RP |
|----------|-----------------|
| 2 | 3606.321 |

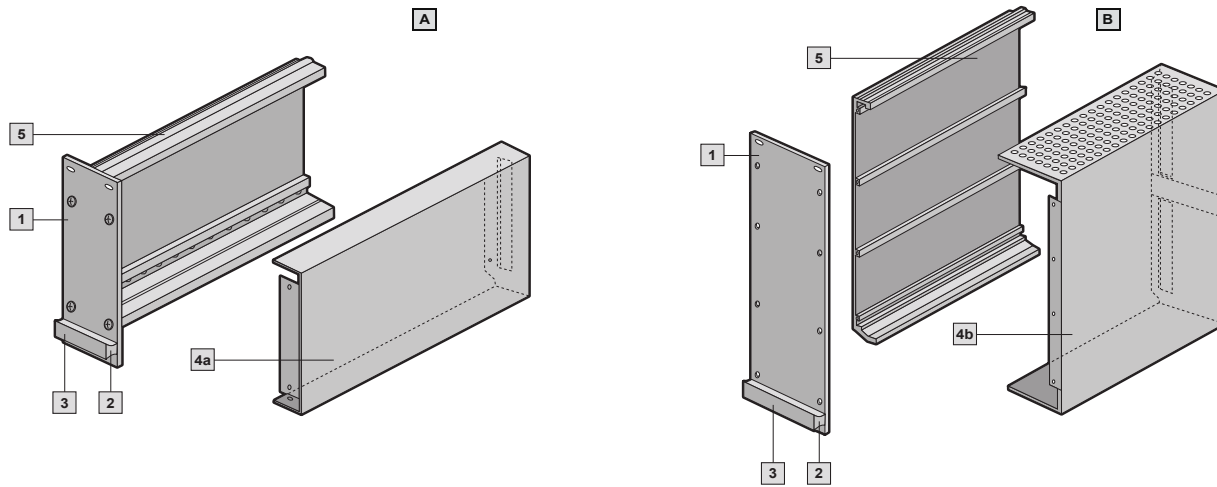
Ripac Box Type Plug-In Units - Individual Components



Ripac box type plug-in units, types I and II in 3U and 6U, individual components

| Type I for one connector/type II for several connectors | | | | | | | | | | | |
|--|--------|---------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| Box type plug-in units, individual components | A | B | Packs of | 8 HP | 10 HP | 12 HP | 14 HP | 21 HP | 28 HP | 42 HP | Page |
| | Type I | Type II | | | | | | | | | |
| Front panels of 2.5 mm aluminium, anodised surface finish | | | | | | | | | | | |
| | | | 1 | 3685.769 | 3685.629 | 3685.630 | 3685.631 | 3685.636 | 3685.637 | 3685.638 | – |
| 1 | | | 1 | 3685.767 | 3685.633 | 3685.634 | 3685.635 | 3685.639 | 3685.640 | 3685.641 | – |
| | | | 1 | – | 3687.520 | 3687.521 | 3687.522 | 3687.523 | 3687.524 | 3687.525 | – |
| EMC front panels of 2.5 mm aluminium, surface finish clear-chromated (only for use in conjunction with 10 HP box type plug-in unit) | | | | | | | | | | | |
| 1a | | | 1 | – | – | 3687.587 | – | – | – | – | – |
| | | | 1 | – | – | 3687.588 | – | – | – | – | – |
| EMC gaskets, vertical, for front panels | | | | | | | | | | | |
| 1b | | | 1 | – | – | 3686.975 | – | – | – | – | 124 |
| | | | 1 | – | – | 3686.977 | – | – | – | – | 124 |
| Handle type V | | | | | | | | | | | |
| 2 | | | 1 | 3685.600 | 3685.601 | 3685.602 | 3685.603 | 3685.761 | 3685.762 | 3685.763 | 149 |
| | | | 1 | 3685.492 | – | 3685.493 | – | 3685.494 | – | – | 149 |
| Identification strips | | | | | | | | | | | |
| 3 | | | 1 | 3685.751 | 3685.752 | 3685.753 | 3685.754 | 3685.755 | 3685.756 | 3685.757 | 149 |
| Top covers 4a 4b of 1 mm aluminium, untreated 4c of 1.2 mm sheet steel, spray-finished, RAL 9006 (with vent slots) | | | | | | | | | | | |
| 4a | | | 1 | 3687.555 | 3685.689 | 3685.690 | 3685.691 | 3685.692 | 3685.693 | 3685.694 | – |
| | | | 1 | 3687.562 | 3685.701 | 3685.702 | 3685.703 | 3685.704 | 3685.705 | 3685.706 | – |
| 4b | | | 1 | 3687.585 | 3685.683 | 3685.684 | 3685.685 | 3685.686 | 3685.687 | 3685.688 | – |
| | | | 1 | – | 3685.695 | 3685.696 | 3685.697 | 3685.698 | 3685.699 | 3685.700 | – |
| 4c | | | 1 | – | 3687.556 | 3687.557 | 3687.558 | 3687.559 | 3687.560 | 3687.561 | – |
| | | | 1 | – | 3687.563 | 3687.564 | 3687.565 | 3687.566 | 3687.567 | 3687.568 | – |
| Side panel of extruded aluminium section, anodised surface finish | | | | | | | | | | | |
| | | | 1 | | | | 3685.645 | | | | – |
| 5 | | | 1 | | | | 3685.648 | | | | – |
| | | | 1 | | | | 3685.646 | | | | – |
| | | | 1 | | | | 3685.649 | | | | – |
| Rear panel 6a of 2.0 mm aluminium, untreated 6b of 1.2 mm sheet steel, spray-finished | | | | | | | | | | | |
| 6a | | | 1 | 3687.536 | 3685.707 | 3685.708 | 3685.709 | 3685.710 | 3685.711 | 3685.712 | – |
| 6b | | | 1 | – | – | – | – | 3687.537 | 3687.538 | 3687.539 | – |
| Assembly parts for box type plug-in units | | | | | | | | | | | |
| PCB holder for box type plug-in units | | | | | | | | | | | |




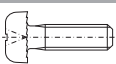






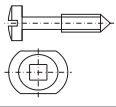








Ripac Box Type Plug-In Units - Individual Components



Ripac box type plug-in units, types V and VI in 3U and 6U, individual components

| Type V with cover (unvented)/type VI with cover (vented) | | | | | | | | | | | |
|--|--|---------|----------|----------|----------|----------|--------------|----------|----------|------|--|
| Box type plug-in units, individual components | A | B | Packs of | 6 HP | 7 HP | 8 HP | 10 HP | 12 HP | 14 HP | Page | |
| | Type V | Type VI | | | | | | | | | |
| Front panels of 2.5 mm aluminium, anodised surface finish | | | | | | | | | | | |
| 1 | for 3U | ■ | 1 | 3685.768 | 3685.628 | 3685.769 | 3685.629 | 3685.630 | 3685.631 | – | |
| | for 6U | ■ | 1 | 3685.766 | 3685.632 | 3685.767 | 3685.633 | 3685.634 | 3685.635 | – | |
| Handle type V | | | | | | | | | | | |
| 2 | of aluminium, anodised surface finish | ■ | 1 | 3685.598 | 3685.599 | 3685.600 | 3685.601 | 3685.602 | 3685.603 | 149 | |
| | of plastic | ■ | 1 | – | – | 3685.492 | – | 3685.493 | – | 149 | |
| Identification strips for 3U | | | | | | | | | | | |
| 3 | of 0.5 mm aluminium, anodised surface finish | ■ | 1 | 3685.749 | 3685.750 | 3685.751 | 3685.752 | 3685.753 | 3685.754 | 149 | |
| Cover of 1 mm aluminium, clear-chromated surface finish | | | | | | | | | | | |
| 4a | unvented, 3U, for board depth 160 mm | ■ | 1 | 3685.774 | 3685.658 | 3685.776 | 3685.659 | 3685.660 | 3685.661 | – | |
| | unvented, 3U, for board depth 220 mm | ■ | 1 | 3685.775 | 3685.674 | 3685.777 | 3685.675 | 3685.676 | 3685.677 | – | |
| | unvented, 6U, for board depth 160 mm | ■ | 1 | 3685.717 | 3685.662 | 3685.764 | 3685.663 | 3685.664 | 3685.665 | – | |
| | unvented, 6U, for board depth 220 mm | ■ | 1 | 3685.718 | 3685.678 | 3685.765 | 3685.679 | 3685.680 | 3685.681 | – | |
| 4b | vented, 3U, for board depth 160 mm | – | 1 | 3685.770 | 3685.650 | 3685.772 | 3685.651 | 3685.652 | 3685.653 | – | |
| | vented, 3U, for board depth 220 mm | – | 1 | 3685.771 | 3685.666 | 3685.773 | 3685.667 | 3685.668 | 3685.669 | – | |
| | vented, 6U, for board depth 160 mm | – | 1 | 3685.713 | 3685.654 | 3685.715 | 3685.655 | 3685.656 | 3685.657 | – | |
| | vented, 6U, for board depth 220 mm | – | 1 | 3685.714 | 3685.670 | 3685.716 | 3685.671 | 3685.672 | 3685.673 | – | |
| Side panel of extruded aluminium section, anodised surface finish | | | | | | | | | | | |
| 5 | 3U, for board depth 160 mm | ■ | 1 | | | | 3685.645 | | | – | |
| | 6U, for board depth 160 mm | ■ | 1 | | | | 3685.648 | | | – | |
| | 3U, for board depth 220 mm | ■ | 1 | | | | 3685.646 | | | – | |
| | 6U, for board depth 220 mm | ■ | 1 | | | | 3685.649 | | | – | |
| Assembly parts for box type plug-in unit types I, II, V, VI | | | | | | | | | | | |
| Designation | For installation of: | | | | | Packs of | Model No. RP | | | | |
| Assembly kit for box type plug-in unit I/II, 3U | Box type plug-in units, type I/II, 3U | | | | | 1 set | 3687.589 | | | | |
| Assembly kit for box type plug-in unit I/II, 6U | Box type plug-in units, type I/II, 6U | | | | | 1 set | 3687.590 | | | | |
| Assembly kit for box type plug-in unit type V/VI | Box type plug-in units, type V/VI | | | | | 1 set | 3685.294 | | | | |
| Assembly kit for box type plug-in unit with EMC front panel | Box type plug-in unit with EMC front panel | | | | | 1 set | 3687.591 | | | | |
| Assembly kit for plastic handles | Plastic handles on box type plug-in units | | | | | 1 set | 3687.519 | | | | |
| Guide rails for box type plug-in units | | | | | | | | | | | |

Assembly Parts

| For the attachment of | Description | Dimensions | | Model No. | Packs of |
|---|--|--|--|-----------------|----------|
| Front panels to unit side panels | Oval csk-screw ISO 7047-4.8-Z-A2K | M3 x 8 |  | 3606.550 | 100 |
| Rear panels to box-type plug-in units | Panhead posidrive screw ISO 7045-4.8-Z-A2K | M3 x 8 |  | 3606.560 | 100 |
| PCB holders (plastic) to front panels, top | Oval csk-screw ISO 7047-4.8-Z-A2K | M2.5 x 10 |  | 3606.610 | 100 |
| – Horizontal rails to side panels – Divider panels to horizontal rails – Horizontal rails to vertical supports | Panhead self-locking screw similar to DIN ISO 7045-8.8-Z-A2K | M4 x 12 |  | 3654.300 | 100 |
| Horizontal rails front/rear to side panels (Ripac EASY) | Multi-tooth assembly screw, self-tapping, T20, self-locking | M4 x 12 | | 3634.430 | 100 |
| Cover and base plates (Ripac EASY) | Pozidrive raised countersunk, multi-tooth assembly screw, T10, self-locking | M3 x 6 | | 3634.233 | 100 |
| – PCBs to PCB holders (die-cast for 3 U), top – PCBs to extractor handles with 6 U | Panhead posidrive screw ISO 7045-4.8-Z-A2K | M2.5 x 8 |  | 3654.320 | 100 |
| – PCB holder (plastic) to type V/VI handles, bottom – PCBs to PCB holders (plastic) – Backplanes to threaded inserts | Panhead posidrive screw ISO 7045-4.8-Z-A2K | M2.5 x 10 |  | 3654.330 | 100 |
| – Connectors to Z rails – Z rails to horizontal rails – Type V/VI handles to partial front panels, bottom right for ≥ 5 HP – Aluminium guide rails to horizontal rails – Mezzanine front panels | Panhead posidrive screw ISO 7045-4.8-Z-A2K | M2.5 x 6 |  | 3654.340 | 100 |
| Aluminium guide rails to horizontal rails (fastening of square nuts) | Retaining cage | M2.5 | | 9901.417 | 100 |
| Handle type V (plastic) to front panels and box type plug-in units | Mounting kit for type V handle (plastic): Cover black Cover grey Hex nut Screw Screw Square nut DIN 562-04-A2K | M2.5 M2.5 x 16 M2.5 x 12 M2.5 | | 3687.519 | 1 set |
| Connectors to PCBs | Panhead posidrive screw ISO 7045-4.8-Z-A2K | M2.5 x 12 |  | 3654.350 | 100 |
| Guide rails (plastic) to horizontal rails | Screw for plastic WN 1413 | M2.2 x 6 |  | 3654.360 | 100 |
| – Flat front panels to handles type V, VI – Aluminium guide rails to horizontal rails | Square nut DIN 562-A2K | M2.5 |  | 3654.370 | 100 |
| – Flat front panels to horizontal rails – Trim frame to conceal the front sections of the horizontal mounting kit | Collar screws (cheese-head) and plastic collars | M2.5 x 11 |  | 3658.160 | 100 sets |
| Flat front panels | Plastic collars | |  | 3687.021 | 100 |
| PCB to type III handle | Screw for plastic WN 1412 | 3.0 x 8 |  | 3658.190 | 100 |
| – PCBs to PCB holders (plastic) – PCB holders to front panels, top | Hex nut ISO 4032-8 | M2.5 |  | 3658.210 | 100 |
| – Backplanes to threaded inserts – Air partitions to horizontal rails | Mounting kit for backplanes: Panhead posidrive screw ISO 7045-4.8-Z-A2K Washer PE, natural DIN 125 | M2.5 x 6 2.7 |   | 3684.019 | 100 |
| – Covers to mounting blocks – EMC contact strips | Flat csk-screw ISO 7046-1-4.8-Z-A2K | M3 x 6 |  | 3684.233 | 100 |
| Cover plates to side panels (Ripac Vario) | Mounting block | |  | 3684.234 | 10 |
| Type V/VI handle to front panels | Bracket | |  | 3684.435 | 100 |
| Female connector to PCB attachment | Pop rivet DIN 7340-B-CuZn | 2.5 x 0.3 x 10 | | 3684.482 | 100 |

Assembly Parts

| For the attachment of | Description | Dimensions | Model No. | Packs of |
|---|--|------------------------------|-----------------|----------|
| Ground contact to keyable guide rails | Fastening screw for ground contact | 3.5 x 12 | 3684.109 | 50 |
| Fans to fan mounting plate | Mounting kit for fans: Flat csk-screw ISO 7046-1-4.8-Z-A2K Hex nut ISO 4032-8 Serrated washer DIN 6798-A-Fst-A2K | M4 x 12 M4 4.3 | 3685.197 | 1 set |
| Covers to side panels | Mounting kit for covers: Mounting block Flat csk-screw ISO 7046-1-4.8-Z-A2K | M3 x 6 | 3685.256 | 24 sets |
| PCB holders (die-cast) to front panels, top | Oval csk-screw ISO 7047-4.8-Z-A2K | M2.5 x 8 | 3685.282 | 100 |
| – Covers/box type plug-in units type I/II – Contact/spring sections for 3-part front panels | Flat csk-screw ISO 7046-1-4.8-Z-A2K | M2.5 x 5 | 3685.289 | 100 |
| – Handles on front panels for box type plug-in units – Front panels to hinge strips | Flat csk-screw ISO 7046-1-4.8-Z-A2K | M2.5 x 6 | 3685.290 | 100 |
| Holder (horizontal assembly kit) to horizontal rail | Flat csk-screw similar to ISO 7046-1-4.8-Z-A2K | M2.5 x 5 | 3686.916 | 100 |
| Holder (horizontal assembly kit) to horizontal rail | Flat csk-screw similar to ISO 7046-1-4.8-Z-A2K | M2.5 x 8 | 3686.917 | 100 |
| Contact and spring sections on 3-part front panels without countersink | Panhead posidrive screw ISO 7046-4.8-Z-A2K | M2.5 x 5 | 3686.924 | 100 |
| Recessed flanges to side panels | Mounting kit for recessed flanges: Panhead self-locking screw similar to DIN ISO 7045-8.8-Z-A2K Hex nut ISO 4032-8 Washer | M4 x 8 M4 4.3 | 3687.015 | 4 sets |
| Fastening the threaded inserts in horizontal rails | Grub screw ISO 7434-14H | M2.5 x 8 | 3687.020 | 100 |
| – EMC front panels to horizontal rails – EMC trim frame to conceal the front sections of the horizontal mounting kit | Centering screw with slot, with slotted head | M2.5 x 11 | 3687.050 | 100 |
| EMC front panels to horizontal rails | Centering screw, posidrive | M2.5 x 11 | 3687.051 | 100 |
| EMC front panels to horizontal rails | Centering screw, hex socket | M2.5 x 11 | 3688.709 | 100 |
| Front panels and rear panels to horizontal rails | Collar screw, with slotted head | M2.5 x 11 | 3685.097 | 100 |
| Type V/VI handles (aluminium) to front panels | Mounting kit for type V/VI handles: Panhead posidrive screw ISO 7045-4.8-Z-A2K Bracket Square nut DIN 562-11H-A2K | M2.5 x 6 M2.5 | 3687.146 | 1 set |

Assembly parts:for electronic packaging

Ripac Vario-Module System Enclosure



The RiCase instrument case impresses with its modern design and high functionality.

Particular features include the numerous colour variants and the all-metal enclosure construction.

The Ripac Vario-Module system enclosure (desktop or rack-mounted enclosure) is fully compatible with

the latest Ripac subrack range, making it ideal for individual configuration and assembly as a micro-computer system.

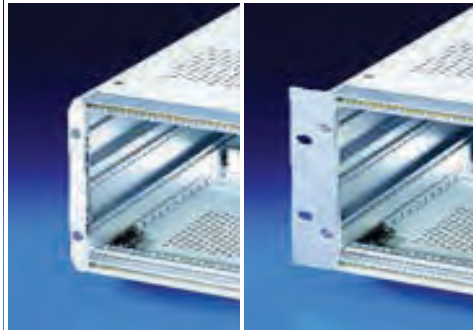
At just one U, the RiBox system enclosure offers a high packaging density in even the smallest of spaces.

RiBox

System enclosure for horizontal installation of individual boards, hubs, routers and modems.

Mounting plate of sheet steel for individual population.

Mounting kit for horizontal installation of boards.



Rittal RiCase

All-metal instrument case for 482.6 mm (19") slide-in equipment

The perfect "safe" for high-quality electronics. Extruded aluminium sections and die-cast elements form an extremely robust yet lightweight enclosure.

Stability and non-slip properties are guaranteed by 10 mm high corner caps. The distance from the desktop or from the lower enclosure offers excellent ventilation conditions.

Slide-in strips simply slide into the required profile channel, to facilitate any required attachment.



Ripac Vario-Module

System enclosure for direct installation of PCBs or board-type plug-in units.

Basic enclosure optionally for EMC or non-EMC applications and suitable for individual configuration, e.g. with flanges/cover plates.

Optionally with **corner trim** for configuration as an instrument case or with **482.6 mm (19") flanges** for configuration as a rack-mounted enclosure.



Overview of benefits

RiBox

- Horizontal installation of selected system components
- Standard mounting plate
- Minimal build height of 1U

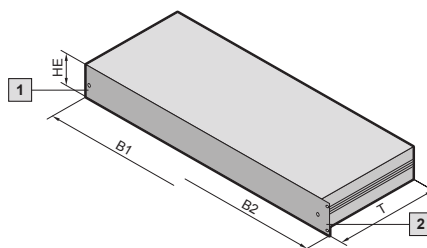
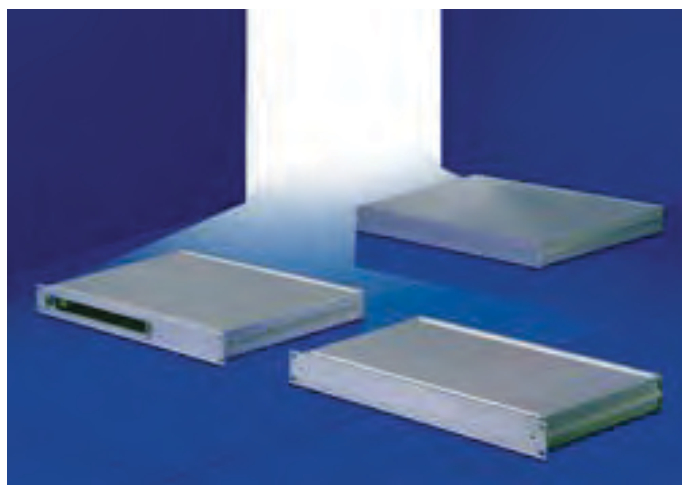
Ripac Vario-Module

- Optional use as instrument case or rack-mounted enclosure
- Portable
- Optionally as EMC version

Rittal RiCase

- Instrument case for the installation of 482.6 mm (19") slide-in equipment and components
- All-metal design affords a high level of mechanical protection
- Ergonomic handle, feet and door variants
- For mobile and static use
- 3 colour variants as standard
- Configuration as a Tower version
- Front doors made from aluminium or acrylic
- Stackable

RiBox System Enclosures 1U



Technical specifications:
 System enclosures 1U, 150, 200, 250, 300, 350 mm deep
 Easy to assemble with just 4 screws.
 Optionally for use as an instrument case or 19" rack-mounted enclosure, front panel to hold an overlay to conceal the screws.
 Maximum possible useful interior space.
 Optional EMC upgrades with additional EMC gaskets.
 Option of installing 1 VME or CPCI board horizontally.

Design:
 System enclosure 1 U, to IEC 60 297-1.
 Optionally available for 19" rack-mounting in the enclosure or as an instrument case version.

- 1 Equipped as an instrument case
- 2 Equipped as a rack-mounted unit

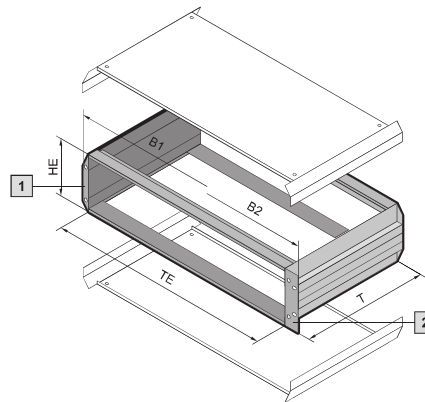
Material/surface finish:
 Side panels: Extruded aluminium section, untreated
 Base/cover trays: Aluminium, clear-chromated
 Front/rear panel: Extruded aluminium section, clear-chromated
 Mounting plate: Sheet steel

Custom variations available upon request.

Detail drawing, see page 191.

| | | | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| U (HE) | 1 | 1 | 1 | 1 | 1 | – | – |
| Width (B1) mm | 447 | 447 | 447 | 447 | 447 | – | – |
| Width (B2) mm | 19" (482.6) | 19" (482.6) | 19" (482.6) | 19" (482.6) | 19" (482.6) | 19" (482.6) | 19" (482.6) |
| Depth (T) mm | 150 | 200 | 250 | 300 | 350 | 250 | 350 |
| Model No. RP instrument case | 3687.819 | 3687.820 | 3687.821 | 3687.822 | 3687.823 | – | – |
| Model No. RP rack case | 3687.814 | 3687.815 | 3687.816 | 3687.817 | 3687.818 | – | – |
| Model No. RP rack-mount including mounting kit for double Euroboards | – | – | – | – | – | 3684.072 | 3684.073 |
| Supply includes | | | | | | | |
| Side panel | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Font panel | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Rear panel | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Base/cover tray | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mounting kit | – | – | – | – | – | 1 | 1 |
| Accessories | | | | | | | |
| EMC set | 3684.080 | 3684.080 | 3684.080 | 3684.080 | 3684.080 | 3684.080 | 3684.080 |
| Mounting plate | 3684.074 | 3684.075 | 3684.076 | 3684.077 | 3684.078 | – | – |

Ripac Vario-Module 2U



HE = U
TE = HP

Technical specifications:
May be used as a rack-mounted enclosure or instrument case. External dimensions to IEC 60 297-1 for installation in 482.6 mm (19") racks. Installation dimensions for board type plug-in assemblies to IEC 60 297-3-101.

Material/Surface finish:
Side panels:
Extruded aluminium section, spray-finished in RAL 7035
Horizontal rails:
Extruded aluminium section, clear-chromated
Corner trims:
Die-cast zinc, spray-finished in RAL 7035
Side trims:
Extruded aluminium section, spray-finished in RAL 7035

Protection category:
IP 40 for non-vented version.

Supply includes:
2 side panels,
4 horizontal rails,
4 threaded inserts,
2 corner trims,
assembly parts.

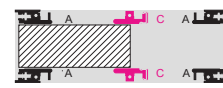
- 1 Equipped as an instrument case
- 2 Equipped as a rack-mounted unit

Note:
Corner trims, mounting flanges and top and bottom covers must be ordered separately.

Horizontal rails for further configuration must be ordered separately, see pages 108-109.

Detailed drawings, see page 192.

Horizontal rail configuration



2 U

Custom variations available upon request.

| Ripac Vario-Module | Packs of | 2U | | | | | | Page |
|------------------------------|----------|----------|----------|----------|----------|----------|----------|------|
| Installation width (HP) | | 42 | 42 | 63 | 63 | 84 | 84 | |
| Width (B1) mm | | 235.6 | 235.6 | 342.3 | 342.3 | 449.0 | 449.0 | |
| Width (B2) mm | | 251.6 | 251.6 | 358.3 | 358.3 | 465.1 | 465.1 | |
| Depth (T) mm | | 250.4 | 310.4 | 250.4 | 310.4 | 250.4 | 310.4 | |
| Model No. VM Basic enclosure | 1 | 3982.000 | 3982.020 | 3982.290 | 3982.300 | 3982.010 | 3982.030 | |

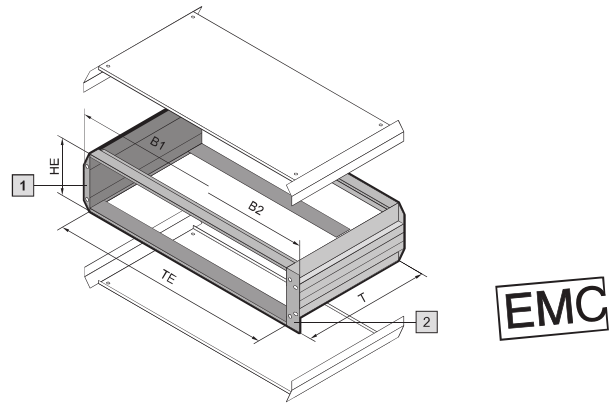
Also required

| | | | | | | | | |
|--|---|----------|----------|----------|----------|----------|----------|-----|
| Top covers | | | | | | | | |
| – with vent holes | 1 | 3982.941 | 3982.951 | 3982.942 | 3982.952 | 3982.940 | 3982.950 | 170 |
| – without vent holes | 1 | 3982.901 | 3982.911 | 3982.902 | 3982.912 | 3982.900 | 3982.910 | 170 |
| Bottom covers | | | | | | | | |
| – with vent holes | 1 | 3982.741 | 3982.751 | 3982.742 | 3982.752 | 3982.740 | 3982.750 | 170 |
| – without vent holes | 1 | 3982.701 | 3982.711 | 3982.702 | 3982.712 | 3982.700 | 3982.710 | 170 |
| Front corner trims for assembly as instrument case | 2 | 3981.300 | 3981.300 | 3981.300 | 3981.300 | 3981.300 | 3981.300 | 171 |
| Flanges for configuration as rack-mount | | | | | | | | |
| – without handle holes | 2 | 3981.200 | 3981.200 | 3981.200 | 3981.200 | 3981.200 | 3981.200 | 171 |

Accessories

| | | | | | | | | |
|----------------------|---|----------|----------|----------|----------|----------|----------|-----|
| Front/rear panels | | | | | | | | |
| Rear adjustable feet | 4 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 172 |

Ripac Vario-Module 2U, EMC



HE = U
TE = HP

Technical specifications:
May be used as a rack-mounted enclosure or instrument case.
External dimensions to IEC 60 297-1 for installation in 482.6 mm (19") racks.
Installation dimensions for board type plug-in assemblies to IEC 60 297-3-101.

Material/Surface finish:
Side panels:
Extruded aluminium section, spray-finished in RAL 7035
Horizontal rails:
Extruded aluminium section, clear-chromated
Corner trims:
Die-cast zinc, spray-finished in RAL 7035

Side trims:
Extruded aluminium section, spray-finished in RAL 7035
Contact points: conductive

Protection category:
IP 40 for non-vented version.

Supply includes:
2 side panels,
4 horizontal rails,
4 threaded inserts,
2 rear corner trims,
assembly parts.

1 Equipped as an instrument case

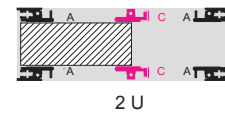
2 Equipped as a rack-mounted unit

Note:
Corner trims, mounting flanges and top and bottom covers must be ordered separately.

Horizontal rails for further configuration must be ordered separately, see pages 108-109.

Detailed drawings, see page 192.

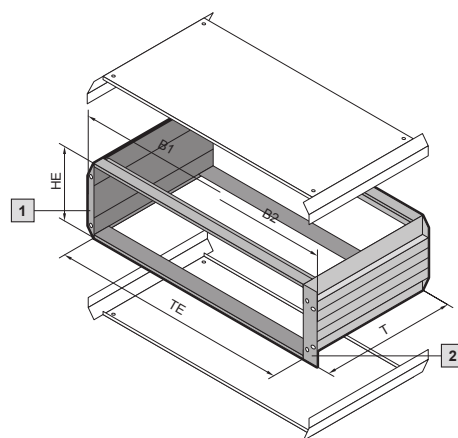
Horizontal rail configuration



Custom variations available upon request.

| Ripac Vario-Module | Packs of | 2U | | | | | | Page |
|--|----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------|
| Installation width (HP) | | 42 | 42 | 63 | 63 | 84 | 84 | |
| Width (B1) mm | | 235.6 | 235.6 | 342.3 | 342.3 | 449.0 | 449.0 | |
| Width (B2) mm | | 251.6 | 251.6 | 358.3 | 358.3 | 465.1 | 465.1 | |
| Depth (T) mm | | 250.4 | 310.4 | 250.4 | 310.4 | 250.4 | 310.4 | |
| Model No. VM Basic enclosure EMC | 1 | 3983.000 | 3983.020 | 3983.290 | 3983.300 | 3983.010 | 3983.030 | |
| Also required | | | | | | | | |
| EMC top covers | | | | | | | | |
| – with vent holes | 1 | 3981.941 | 3981.951 | 3981.942 | 3981.952 | 3981.940 | 3981.950 | 170 |
| – without vent holes | 1 | 3981.901 | 3981.911 | 3981.902 | 3981.912 | 3981.900 | 3981.910 | 170 |
| EMC bottom covers | | | | | | | | |
| – with vent holes | 1 | 3981.741 | 3981.751 | 3981.742 | 3981.752 | 3981.740 | 3981.750 | 170 |
| – without vent holes | 1 | 3981.701 | 3981.711 | 3981.702 | 3981.712 | 3981.700 | 3981.710 | 170 |
| Front corner trims for assembly as instrument case | 2 | 3981.300 | 3981.300 | 3981.300 | 3981.300 | 3981.300 | 3981.300 | 171 |
| Flanges for configuration as rack-mount – without handle holes | 2 | 3981.200 | 3981.200 | 3981.200 | 3981.200 | 3981.200 | 3981.200 | 171 |
| EMC installation | | | | | | | | |
| EMC gaskets, horizontal | | | | | | | | |
| – for upper/lower horizontal rail | 1 | 3684.808 | 3684.808 | 3684.808 | 3684.808 | 3684.808 | 3684.808 | 125 |
| – between covers and horizontal rails | 1 | 3684.245 | 3684.245 | 3684.245 | 3684.245 | 3684.245 | 3684.245 | 125 |
| EMC gaskets, vertical | 1 | 3686.974 | 3686.974 | 3686.974 | 3686.974 | 3686.974 | 3686.974 | 124 |
| Front/rear panels EMC | | | | | | | | |
| Accessories | | | | | | | | |
| Front/rear panels | | | | | | | | |
| Rear adjustable feet | 4 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 172 |

Ripac Vario-Module 3U



Technical specifications:
 May be used as a rack-mounted enclosure or instrument case.
 External dimensions to IEC 60 297-1 for installation in 482.6 mm (19") racks.
 Installation dimensions for board type plug-in assemblies to IEC 60 297-3-101.

Material/Surface finish:
 Side panels:
 Extruded aluminium section, spray-finished in RAL 7035
 Horizontal rails:
 Extruded aluminium section, clear-chromated
 Corner trims:
 Die-cast zinc, spray-finished in RAL 7035
 Side trims:
 Extruded aluminium section, spray-finished in RAL 7035

Protection category:
 IP 40 for non-vented version.

Supply includes:
 2 side panels,
 4 horizontal rails,
 4 threaded inserts,
 2 corner trims,
 assembly parts.

1 Equipped as an instrument case

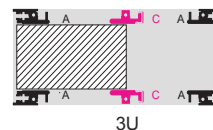
2 Equipped as a rack-mounted unit

Note:
 Corner trims, mounting flanges and top and bottom covers must be ordered separately.

Horizontal rails for further configuration must be ordered separately, see pages 108-109.

Detailed drawings, see page 192.

Horizontal rail configuration



Custom variations available upon request.

| Ripac Vario-Module | Packs of | 3U | | | | | | | Page |
|------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| Installation width (HP) | | 42 | 42 | 63 | 63 | 84 | 84 | 84 | |
| Width (B1) mm | | 235.6 | 235.6 | 342.3 | 342.3 | 449.0 | 449.0 | 449.0 | |
| Width (B2) mm | | 251.6 | 251.6 | 358.3 | 358.3 | 465.1 | 465.1 | 465.1 | |
| Depth (T) mm | | 250.4 | 310.4 | 250.4 | 310.4 | 250.4 | 310.4 | 370.4 | |
| Model No. VM Basic enclosure | 1 | 3982.040 | 3982.070 | 3982.050 | 3982.080 | 3982.060 | 3982.090 | 3982.100 | |

Also required

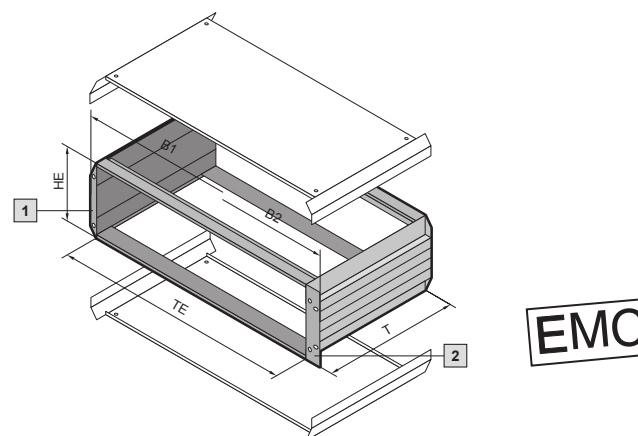
| | | | | | | | | | |
|--|---|----------|----------|----------|----------|----------|----------|----------|-----|
| Top covers | | | | | | | | | |
| - with vent holes | 1 | 3982.941 | 3982.951 | 3982.942 | 3982.952 | 3982.940 | 3982.950 | 3982.960 | 170 |
| - without vent holes | 1 | 3982.901 | 3982.911 | 3982.902 | 3982.912 | 3982.900 | 3982.910 | 3982.920 | 170 |
| Bottom covers | | | | | | | | | |
| - with vent holes | 1 | 3982.741 | 3982.751 | 3982.742 | 3982.752 | 3982.740 | 3982.750 | 3982.760 | 170 |
| - without vent holes | 1 | 3982.701 | 3982.711 | 3982.702 | 3982.712 | 3982.700 | 3982.710 | 3982.720 | 170 |
| Front corner trims for assembly as instrument case | 2 | 3981.310 | 3981.310 | 3981.310 | 3981.310 | 3981.310 | 3981.310 | 3981.310 | 171 |
| Flanges for configuration as rack-mount | | | | | | | | | |
| - without handle holes | 2 | 3981.210 | 3981.210 | 3981.210 | 3981.210 | 3981.210 | 3981.210 | 3981.210 | 171 |
| - with handle holes | 2 | 3981.260 | 3981.260 | 3981.260 | 3981.260 | 3981.260 | 3981.260 | 3981.260 | 171 |

Accessories

| | | | | | | | | | |
|-----------------------------|---|----------|----------|----------|----------|----------|----------|----------|-----|
| Front/rear panels | | | | | | | | | |
| Carrying handles | 2 | 3981.350 | 3981.360 | 3981.350 | 3981.360 | 3981.350 | 3981.360 | 3981.370 | 171 |
| Front handles ¹⁾ | 2 | 3636.010 | 3636.010 | 3636.010 | 3636.010 | 3636.010 | 3636.010 | 3636.010 | 171 |
| Acrylic front door | 1 | 3981.420 | 3981.420 | 3981.430 | 3981.430 | 3981.440 | 3981.440 | 3981.440 | 172 |
| Rear adjustable feet | 4 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 172 |

¹⁾ Only in conjunction with mounting flanges with handle holes.

Ripac Vario-Module 3U, EMC



HE = U

Technical specifications:
May be used as a rack-mounted enclosure or instrument case. External dimensions to IEC 60 297-1 for installation in 482.6 mm (19") racks. Installation dimensions for board type plug-in assemblies to IEC 60 297-3-101.

Material/Surface finish:

Side panels:
Extruded aluminium section, spray-finished in RAL 7035
Horizontal rails:
Extruded aluminium section, clear-chromated
Corner trims:
Die-cast zinc, spray-finished in RAL 7035

Side trims:
Extruded aluminium section, spray-finished in RAL 7035
Contact points: conductive

Protection category:
IP 40 for non-vented version.

Supply includes:

2 side panels,
4 horizontal rails,
4 threaded inserts,
2 rear corner trims, assembly parts.

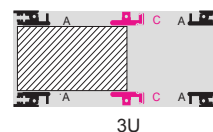
- 1 Equipped as an instrument case
- 2 Equipped as a rack-mounted unit

Note:
Corner trims, mounting flanges and top and bottom covers must be ordered separately.

Horizontal rails for further configuration must be ordered separately, see pages 108-109.

Detailed drawings, see page 192.

Horizontal rail configuration

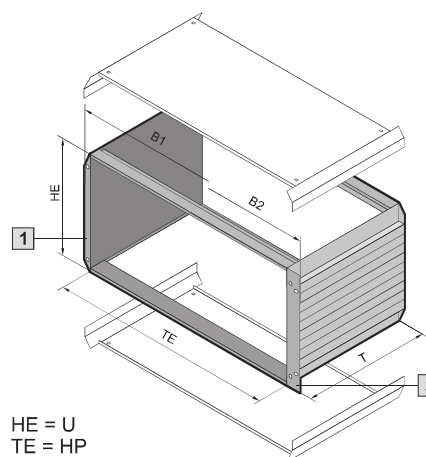


Custom variations available upon request.

| Ripac Vario-Module | Packs of | 3U | | | | | | | Page |
|--|----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------|
| Installation width (HP) | | 42 | 42 | 63 | 63 | 84 | 84 | 84 | |
| Width (B1) mm | | 235.6 | 235.6 | 342.3 | 342.3 | 449.0 | 449.0 | 449.0 | |
| Width (B2) mm | | 251.6 | 251.6 | 358.3 | 358.3 | 465.1 | 465.1 | 465.1 | |
| Depth (T) mm | | 250.4 | 310.4 | 250.4 | 310.4 | 250.4 | 310.4 | 370.4 | |
| Model No. VM Basic enclosure EMC | 1 | 3983.040 | 3983.070 | 3983.050 | 3983.080 | 3983.060 | 3983.090 | 3983.100 | |
| Also required | | | | | | | | | |
| EMC top covers | | | | | | | | | |
| – with vent holes | 1 | 3981.941 | 3981.951 | 3981.942 | 3981.952 | 3981.940 | 3981.950 | 3981.960 | 170 |
| – without vent holes | 1 | 3981.901 | 3981.911 | 3981.902 | 3981.912 | 3981.900 | 3981.910 | 3981.920 | 170 |
| EMC bottom covers | | | | | | | | | |
| – with vent holes | 1 | 3981.741 | 3981.751 | 3981.742 | 3981.752 | 3981.740 | 3981.750 | 3981.760 | 170 |
| – without vent holes | 1 | 3981.701 | 3981.711 | 3981.702 | 3981.712 | 3981.700 | 3981.710 | 3981.720 | 170 |
| Front corner trims for assembly as instrument case | 2 | 3981.310 | 3981.310 | 3981.310 | 3981.310 | 3981.310 | 3981.310 | 3981.310 | 171 |
| Flanges for configuration as rack-mount | | | | | | | | | |
| – without handle holes | 2 | 3981.210 | 3981.210 | 3981.210 | 3981.210 | 3981.210 | 3981.210 | 3981.210 | 171 |
| – with handle holes | 2 | 3981.260 | 3981.260 | 3981.260 | 3981.260 | 3981.260 | 3981.260 | 3981.260 | 171 |
| EMC installation | | | | | | | | | |
| EMC gaskets, horizontal | | | | | | | | | |
| – for upper/lower horizontal rail | 1 | 3684.808 | 3684.808 | 3684.808 | 3684.808 | 3684.808 | 3684.808 | 3684.808 | 125 |
| – between covers and horizontal rails | 10 | 3684.245 | 3684.245 | 3684.245 | 3684.245 | 3684.245 | 3684.245 | 3684.245 | 125 |
| EMC gaskets, vertical | 1 | 3686.975 | 3686.975 | 3686.975 | 3686.975 | 3686.975 | 3686.975 | 3686.975 | 124 |
| Front/rear panels EMC | | | | | | | | | |
| Accessories | | | | | | | | | |
| Front/rear panels | | | | | | | | | |
| Carrying handles | 2 | 3981.350 | 3981.360 | 3981.350 | 3981.360 | 3981.350 | 3981.360 | 3981.370 | 171 |
| Front handles ¹⁾ | 2 | 3636.010 | 3636.010 | 3636.010 | 3636.010 | 3636.010 | 3636.010 | 3636.010 | 171 |
| Acrylic front door | 1 | 3981.420 | 3981.420 | 3981.430 | 3981.430 | 3981.440 | 3981.440 | 3981.440 | 172 |
| Rear adjustable feet | 4 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 172 |

¹⁾Only in conjunction with mounting flanges with handle holes.

Ripac Vario-Module 4U, 6U, 7U



Technical specifications:
May be used as a rack-mounted enclosure or instrument case. External dimensions to IEC 60 297-1 for installation in 482.6 mm (19") racks. Installation dimensions for board type plug-in assemblies to IEC 60 297-3-101.

Material/surface finish:
Side panels: Extruded aluminium section, spray-finished in RAL 7035
Horizontal rails: Extruded aluminium section, clear-chromated
Corner trims: Die-cast zinc, spray-finished in RAL 7035

Protection category:
IP 40 for non-vented version.

Supply includes:
2 side panels,
4 horizontal rails,
4 threaded inserts,
2 rear corner trims,
2 side trims centre,
assembly parts.

1 Equipped as an instrument case

2 Equipped as a rack-mounted unit

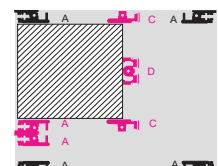
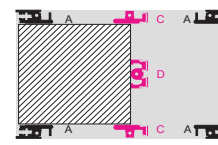
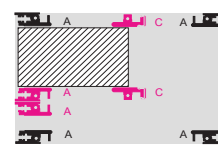
Note:
Corner trims, mounting flanges and top and bottom covers must be ordered separately.

Horizontal rails for further configuration must be ordered separately, see pages 108-109.

Detailed drawings, see page 192.

Custom variations available upon request.

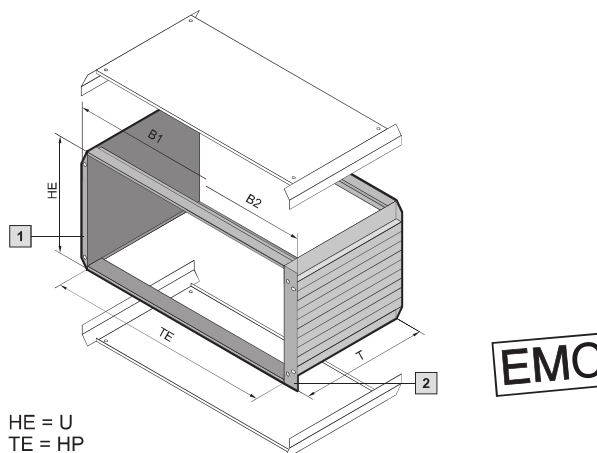
Horizontal rail configuration



| Ripac Vario-Module | Packs of | 4U (3 + 1) | | | 6U | | | 7U (6 + 1) | | Page |
|--|----------|--------------------|----------|----------|----------|----------|----------|------------|----------|------|
| Installation width (HP) | | 84 | 84 | 84 | 84 | 84 | 84 | 84 | 84 | |
| Width (B1) mm | | 449.0 | 449.0 | 449.0 | 449.0 | 449.0 | 449.0 | 449.0 | 449.0 | |
| Width (B2) mm | | 465.1 | 465.1 | 465.1 | 465.1 | 465.1 | 465.1 | 465.1 | 465.1 | |
| Depth (T) mm | | 250.4 | 310.4 | 370.4 | 310.4 | 370.4 | 430.4 | 310.4 | 430.4 | |
| Model No. VM Basic enclosure | 1 | 3982.110 | 3982.120 | 3982.130 | 3982.140 | 3982.150 | 3982.160 | 3982.170 | 3982.190 | |
| Also required | | | | | | | | | | |
| Top covers | | | | | | | | | | |
| – with vent holes | 1 | 3982.940 | 3982.950 | 3982.960 | 3982.950 | 3982.960 | 3982.970 | 3982.950 | 3982.970 | 170 |
| – without vent holes | 1 | 3982.900 | 3982.910 | 3982.920 | 3982.910 | 3982.920 | 3982.930 | 3982.910 | 3982.930 | 170 |
| Bottom covers | | | | | | | | | | |
| – with vent holes | 1 | 3982.740 | 3982.750 | 3982.760 | 3982.750 | 3982.760 | 3982.770 | 3982.750 | 3982.770 | 170 |
| – without vent holes | 1 | 3982.700 | 3982.710 | 3982.720 | 3982.710 | 3982.720 | 3982.730 | 3982.710 | 3982.730 | 170 |
| Front corner trims for assembly as instrument case | 2 | 3981.320 | 3981.320 | 3981.320 | 3981.330 | 3981.330 | 3981.330 | 3981.340 | 3981.340 | 171 |
| Flanges for configuration as rack-mount | | | | | | | | | | |
| – without handle holes | 2 | 3981.220 | 3981.220 | 3981.220 | 3981.230 | 3981.230 | 3981.230 | 3981.240 | 3981.240 | 171 |
| – with handle holes | 2 | 3981.270 | 3981.270 | 3981.270 | 3981.280 | 3981.280 | 3981.280 | 3981.290 | 3981.290 | 171 |
| Accessories | | | | | | | | | | |
| Front/rear panel | | see page 184 – 199 | | | | | | | | |
| Carrying handles | 2 | 3981.350 | 3981.360 | 3981.370 | 3981.360 | 3981.370 | 3981.380 | 3981.360 | 3981.380 | 171 |
| Front handles ¹⁾ | 2 | 3636.010 | 3636.010 | 3636.010 | 3666.010 | 3666.010 | 3666.010 | 3666.010 | 3666.010 | 171 |
| Acrylic front door | 1 | 3981.450 | 3981.450 | 3981.450 | 3981.460 | 3981.460 | 3981.460 | 3981.470 | 3981.470 | 172 |
| Rear adjustable feet | 4 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 172 |

¹⁾ Only in conjunction with mounting flanges with handle holes.

Ripac Vario-Module 4U, 6U, 7U, EMC



Technical specifications:
 May be used as a rack-mounted enclosure or instrument case. External dimensions to IEC 60 297-1 for installation in 482.6 mm (19") racks. Installation dimensions for board type plug-in assemblies to IEC 60 297-3-101.

Material/surface finish:
 Side panels: Extruded aluminium section, spray-finished in RAL 7035
 Horizontal rails: Extruded aluminium section, clear-chromated
 Corner trims: Die-cast zinc, spray-finished in RAL 7035
 Contact points: conductive

Protection category:
 IP 40 for non-vented version.

Supply includes:
 2 side panels,
 4 horizontal rails,
 4 threaded inserts,
 2 rear corner trims,
 2 side trims centre,
 assembly parts.

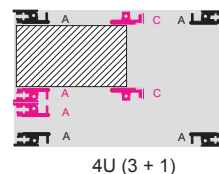
Note:
 Corner trims, mounting flanges and top and bottom covers must be ordered separately.

Detailed drawings, see page 192.

Custom variations available upon request.

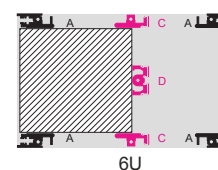
- 1 Equipped as an instrument case
- 2 Equipped as a rack-mounted unit

Horizontal rails for further configuration must be ordered separately, see pages 108-109.

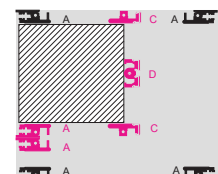


4U (3 + 1)

Horizontal rail configuration



6U



7U (6 + 1)

| Ripac Vario-Module | Packs of | 4U (3 + 1) | | | 6U | | | 7U (6 + 1) | | Page |
|----------------------------------|----------|------------|----------|----------|----------|----------|----------|------------|----------|------|
| Installation width (HP) | | 84 | 84 | 84 | 84 | 84 | 84 | 84 | 84 | |
| Width (B1) mm | | 449.0 | 449.0 | 449.0 | 449.0 | 449.0 | 449.0 | 449.0 | 449.0 | |
| Width (B2) mm | | 465.1 | 465.1 | 465.1 | 465.1 | 465.1 | 465.1 | 465.1 | 465.1 | |
| Depth (T) mm | | 250.4 | 310.4 | 370.4 | 310.4 | 370.4 | 430.4 | 310.4 | 430.4 | |
| Model No. VM Basic enclosure EMC | 1 | 3983.110 | 3983.120 | 3983.130 | 3983.140 | 3983.150 | 3983.160 | 3983.170 | 3983.190 | |

Also required

| | | | | | | | | | | |
|--|---|----------|----------|----------|----------|----------|----------|----------|----------|-----|
| EMC top covers | | | | | | | | | | |
| - with vent holes | 1 | 3981.940 | 3981.950 | 3981.960 | 3981.950 | 3981.960 | 3981.970 | 3981.950 | 3981.970 | 170 |
| - without vent holes | 1 | 3981.900 | 3981.910 | 3981.920 | 3981.910 | 3981.920 | 3981.930 | 3981.910 | 3981.930 | 170 |
| EMC bottom covers | | | | | | | | | | |
| - with vent holes | 1 | 3981.740 | 3981.750 | 3981.760 | 3981.750 | 3981.760 | 3981.770 | 3981.750 | 3981.770 | 170 |
| - without vent holes | 1 | 3981.700 | 3981.710 | 3981.720 | 3981.710 | 3981.720 | 3981.730 | 3981.710 | 3981.730 | 170 |
| Front corner trims for assembly as instrument case | 2 | 3981.320 | 3981.320 | 3981.320 | 3981.330 | 3981.330 | 3981.330 | 3981.340 | 3981.340 | 171 |
| Flanges for configuration as rack-mount | | | | | | | | | | |
| - without handle holes | 2 | 3981.220 | 3981.220 | 3981.220 | 3981.230 | 3981.230 | 3981.230 | 3981.240 | 3981.240 | 171 |
| - with handle holes | 2 | 3981.270 | 3981.270 | 3981.270 | 3981.280 | 3981.280 | 3981.280 | 3981.290 | 3981.290 | 171 |

EMC installation

| | | | | | | | | | | |
|---------------------------------------|----|----------|----------|----------|----------|----------|----------|----------|----------|-----|
| EMC gaskets, horizontal | | | | | | | | | | |
| - for upper/lower horizontal rail | 1 | 3684.808 | 3684.808 | 3684.808 | 3684.808 | 3684.808 | 3684.808 | 3684.808 | 3684.808 | 125 |
| - between covers and horizontal rails | 10 | 3684.245 | 3684.245 | 3684.245 | 3684.245 | 3684.245 | 3684.245 | 3684.245 | 3684.245 | 125 |
| EMC gaskets, vertical | 1 | 3686.976 | 3686.976 | 3686.976 | 3686.977 | 3686.977 | 3686.977 | 3686.978 | 3686.978 | 124 |
| Front/rear panels EMC | | | | | | | | | | |

Accessories

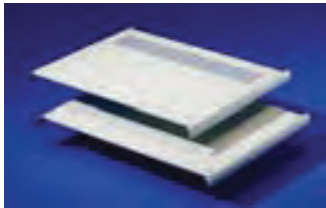
| | | | | | | | | | | |
|-----------------------------|---|----------|----------|----------|----------|----------|----------|----------|----------|-----|
| Front/rear panel | | | | | | | | | | |
| Carrying handles | 2 | 3981.350 | 3981.360 | 3981.370 | 3981.360 | 3981.370 | 3981.380 | 3981.360 | 3981.370 | 171 |
| Front handles ¹⁾ | 2 | 3636.010 | 3636.010 | 3636.010 | 3666.010 | 3666.010 | 3666.010 | 3666.010 | 3666.010 | 171 |
| Acrylic front door | 1 | 3981.450 | 3981.450 | 3981.450 | 3981.460 | 3981.460 | 3981.460 | 3981.470 | 3981.470 | 172 |
| Rear adjustable feet | 4 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 3901.000 | 172 |

¹⁾ Only in conjunction with mounting flanges with handle holes.

Ripac Vario-Module Accessories

Enclosure population

For individual interior installation of the enclosures, system components from the Ripac range may be used.



Top Covers for Ripac Vario module

Standard version
Material: Sheet steel, spray-finished
Colour: RAL 7035

EMC version
Material: Sheet steel, spray-finished
 Contact points: conductive

| HP | Depth mm | Model No. VM standard | | Model No. VM EMC | |
|----|----------|-----------------------|--------------------|------------------|--------------------|
| | | with vent holes | without vent holes | with vent holes | without vent holes |
| 42 | 250.4 | 3982.941 | 3982.901 | 3981.941 | 3981.901 |
| | 310.4 | 3982.951 | 3982.911 | 3981.951 | 3981.911 |
| 63 | 250.4 | 3982.942 | 3982.902 | 3981.942 | 3981.902 |
| | 310.4 | 3982.952 | 3982.912 | 3981.952 | 3981.912 |
| 84 | 250.4 | 3982.940 | 3982.900 | 3981.940 | 3981.900 |
| | 310.4 | 3982.950 | 3982.910 | 3981.950 | 3981.910 |
| | 370.4 | 3982.960 | 3982.920 | 3981.960 | 3981.920 |
| | 430.4 | 3982.970 | 3982.930 | 3981.970 | 3981.930 |

Custom variations available upon request.



Bottom Covers for Ripac Vario module

Standard version
Material: Sheet steel, spray-finished
Colour: RAL 7035

EMC version
Material: Sheet steel, spray-finished
 Contact points: Conductive

| HP | Depth mm | Model No. VM standard | | Model No. VM EMC | |
|----|----------|-----------------------|--------------------|------------------|--------------------|
| | | with vent holes | without vent holes | with vent holes | without vent holes |
| 42 | 250.4 | 3982.741 | 3982.701 | 3981.741 | 3981.701 |
| | 310.4 | 3982.751 | 3982.711 | 3981.751 | 3981.711 |
| 63 | 250.4 | 3982.742 | 3982.702 | 3981.742 | 3981.702 |
| | 310.4 | 3982.752 | 3982.712 | 3981.752 | 3981.712 |
| 84 | 250.4 | 3982.740 | 3982.700 | 3981.740 | 3981.700 |
| | 310.4 | 3982.750 | 3982.710 | 3981.750 | 3981.710 |
| | 370.4 | 3982.760 | 3982.720 | 3981.760 | 3981.720 |
| | 430.4 | 3982.770 | 3982.730 | 3981.770 | 3981.730 |

Custom variations available upon request.



Feet
 with fold-out support stand.
 Load capacity up to 20 kg.
Material: Plastic
Colour: RAL 7035

| Packs of | Model No. VM |
|----------|--------------|
| 2 | 3919.000 |



Mounting plate
 For mounting heavy components.
Material: Aluminium
Supply includes: Assembly parts.

| HP | Depth mm | Packs of | Model No. VM |
|----|----------|----------|--------------|
| 42 | 250 | 1 | 3982.370 |
| 63 | 250 | 1 | 3982.380 |
| 84 | 250 | 1 | 3982.390 |

Ripac Vario-Module Accessories

**Front Flanges**

Required when the Ripac Vario-Module is to be used as a rack-mounted enclosure. The flanges have a channel to accommodate vertical EMC gaskets.

Material:

Aluminium, clear-chromated

| U | Packs of | Model No. VM | |
|---|----------|---------------------|------------------|
| | | without handle hole | with handle hole |
| 2 | 2 | 3981.200 | – |
| 3 | 2 | 3981.210 | 3981.260 |
| 4 | 2 | 3981.220 | 3981.270 |
| 6 | 2 | 3981.230 | 3981.280 |
| 7 | 2 | 3981.240 | 3981.290 |

**Accessories:**

Vertical EMC gasket, see page 124.

Front handles for mounting on front corner trim, see page 171.

**Front corner trims**

Required when the Ripac Vario-Module is to be used as a desk-top instrument case. The corner trims have a channel to accommodate vertical EMC gaskets.

Material:

Aluminium, spray-finished

Colour:

RAL 7035

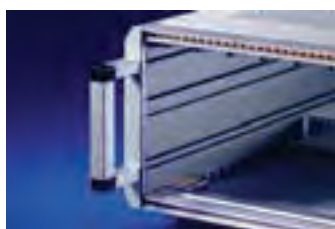
| U | Packs of | Model No. VM |
|---|----------|--------------|
| 2 | 2 | 3981.300 |
| 3 | 2 | 3981.310 |
| 4 | 2 | 3981.320 |
| 6 | 2 | 3981.330 |
| 7 | 2 | 3981.340 |

1 and 8U available on request.

**Accessories:**

Vertical EMC gasket, see page 124.

Front handles for mounting on front corner trim, see page 171.

**Front handles**

For mounting on front corner trims

Maximum load capacity: 500 N

Material:

Cover: ABS

Handle part: Aluminium, clear anodised

Supply includes:

2 handle parts, 4 covers, assembly parts.

| U | Packs of | Model No. VM |
|---|----------|--------------|
| 3 | 2 | 3982.350 |
| 4 | 2 | 3982.360 |
| 6 | 2 | 3982.400 |
| 7 | 2 | 3982.410 |

**Carrying handles**

For ergonomic transportation, even with stacked enclosures.

May also be used as a support stand.

Max. load capacity: 350 N.

Material:

Die-cast zinc and extruded aluminium section

Colour:

RAL 7035

Note:

Only for use with front and rear trims.

| For enclosure depth mm | Packs of | Model No. VM |
|------------------------|----------|--------------|
| 250.4 | 2 | 3981.350 |
| 310.4 | 2 | 3981.360 |
| 370.4 | 2 | 3981.370 |
| 430.4 | 2 | 3981.380 |

Ripac Vario-Module Accessories



Rear feet

For mounting on the rear of the enclosure.

Dual function:

- Mechanical protection of the connection components.
- Also act as a cable tidy during transportation.

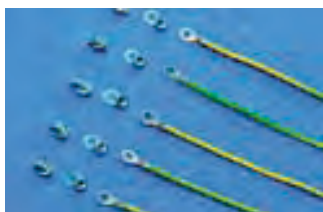
Material:

PA, self-extinguishing to UL 94-V0

Colour:

RAL 7035

| Packs of | Model No. VM |
|----------|--------------|
| 4 | 3901.000 |



Earthing set

For connecting the top and bottom covers to the side panels with PE conductors.

Supply includes:

Conductor cable green/yellow, 1.5 mm², with washer, flat-pin connector and assembly parts.

| Packs of | Model No. RP |
|----------|--------------|
| 5 | 3900.000 |



Support stand/carrying handle

To fit Ripac Vario-Module 3U, 4U and 6U, adjustable on a 30° pitch pattern.

Material:

Extruded aluminium section/die-cast

Colour:

RAL 7035

Supply includes:

Assembly parts.

Note:

Corner trim for support stands/carrying handles should be ordered separately.

| For Ripac Vario-Module | Packs of | Model No. VM |
|------------------------|----------|--------------|
| 42 HP | 1 | 3981.390 |
| 63 HP | 1 | 3981.400 |
| 84 HP | 1 | 3981.410 |

| Corner trim for support stand | Packs of | Model No. VM |
|-------------------------------|----------|--------------|
| 3U | 2 | 3981.310 |
| 4U | 2 | 3981.500 |
| 6U | 2 | 3981.510 |



Front doors

of acrylic glazing, horizontally hinged
For protection of built-in control components.

Material:

Side parts: Aluminium, spray-finished in RAL 7035
Window: Smoked acrylic

Supply includes:

Assembly parts.

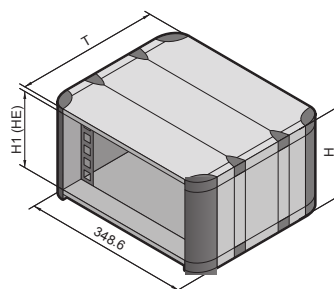
| U | For Ripac Vario-Module | Packs of | Model No. VM |
|---|------------------------|----------|--------------|
| 3 | 42 HP | 1 | 3981.420 |
| 3 | 63 HP | 1 | 3981.430 |
| 3 | 84 HP | 1 | 3981.440 |
| 4 | 84 HP | 1 | 3981.450 |
| 6 | 84 HP | 1 | 3981.460 |
| 7 | 84 HP | 1 | 3981.470 |



Front panels/rear panels

To cover the enclosures front and rear.
Also available as a hinged or EMC version.
Model No. see page 153.

RiCase 269.2mm (1/2 19")



HE = U

Technical specifications:
 Depth: 300 mm, 420 mm, 540 mm
 Installation width:
 269.2 mm (1/2 19")
 Installation options:
 269.2 mm (1/2 19") slide-in
 equipment to IEC 60 297-3

Material/surface finish:

Covers:
 Extruded aluminium section/
 die-cast, spray-finished
 Side panels:
 Extruded aluminium section,
 spray-finished
 Corner caps: Plastic
 482.6 mm (19") mounting
 bracket:
 Extruded aluminium section,
 clear-chromated

Colour:
 RAL 7035 (pale grey)

Decorative colours and corner caps:

RAL 5018 (turquoise)
 RAL 5012 (pale blue)
 RAL 7030 (stone grey)

Protection category:
 IP 42 for unvented version.

Supply includes:
 2 side panels,
 2 covers,
 8 corner caps,
 8/12/16 cover caps
 (300/420/540 mm depth),
 4 482.6 mm (19") mounting
 brackets,
 4 threaded inserts,
 2 plain inserts,
 1 rear panel.
 Enclosures are supplied
 partially assembled.

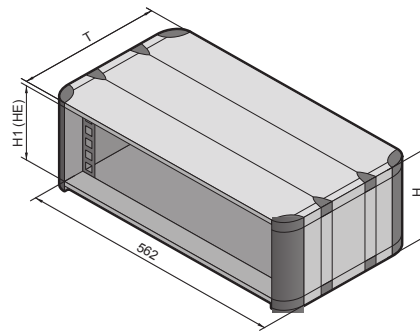
Special sizes and colours available on request.

Property rights:
 German registered design
 no. 96 09 457
 UK reg. design no. 2064682
 US design patents
 Des. 402,640 and Des. 423,464
 Japan. reg. designs
 no. 1045507 and 1045508
 Detailed drawings,
 see page 193.

| Enclosures for subrack width 269.2 mm (1/2 19") | | Packs of | 1U | | 2U | | 3U | | | 4 U | | Page |
|--|------------------------|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------|
| Height (H) mm | | | 77.5 | 77.5 | 121.9 | 121.9 | 166.4 | 166.4 | 166.4 | 210.8 | 210.8 | |
| H1 (U) mm | | | 45.0 | 45.0 | 89.4 | 89.4 | 133.8 | 133.8 | 133.8 | 178.3 | 178.3 | |
| Depth (T) mm | | | 300.0 | 420.0 | 300.0 | 540.0 | 300.0 | 420.0 | 540.0 | 420.0 | 540.0 | |
| Unvented | | | | | | | | | | | | |
| Model No. RC, RAL 5018 | | 1 | 3750.100 | – | 3750.200 | – | 3750.210 | 3750.300 | – | 3750.400 | – | |
| Model No. RC, RAL 5012¹⁾ | | 1 | 3750.102 | – | 3750.202 | – | 3750.212 | 3750.302 | – | 3750.402 | – | |
| Model No. RC, RAL 7030¹⁾ | | 1 | 3750.104 | – | 3750.204 | – | 3750.214 | 3750.304 | – | 3750.404 | – | |
| Vented | | | | | | | | | | | | |
| Model No. RC, RAL 5018 | | 1 | – | 3750.110 | – | 3750.220 | – | 3750.350 | 3750.360 | – | 3750.450 | |
| Model No. RC, RAL 5012¹⁾ | | 1 | – | 3750.112 | – | 3750.222 | – | 3750.352 | 3750.362 | – | 3750.452 | |
| Model No. RC, RAL 7030¹⁾ | | 1 | – | 3750.114 | – | 3750.224 | – | 3750.354 | 3750.364 | – | 3750.454 | |
| Weight (kg) | vented/ unvented | | 3.3 3.4 | 4.2 4.4 | 3.7 3.8 | 5.4 6.1 | 4.1 4.2 | 5.2 5.4 | 6.1 6.8 | 5.8 6.0 | 6.8 7.5 | |
| Accessories | | | | | | | | | | | | |
| Carrying handles, horizontal | | 2 | 3751.250 | 3751.260 | 3751.250 | 3751.270 | 3751.250 | 3751.260 | 3751.270 | 3751.260 | 3751.270 | 176 |
| | RAL 5018 | 1 | 3751.200 | 3751.200 | 3751.200 | 3751.200 | 3751.200 | 3751.200 | 3751.200 | 3751.200 | 3751.200 | 177 |
| Support stand/ carrying handle | RAL 5012 ¹⁾ | 1 | 3751.202 | 3751.202 | 3751.202 | 3751.202 | 3751.202 | 3751.202 | 3751.202 | 3751.202 | 3751.202 | 177 |
| | RAL 7030 ¹⁾ | 1 | 3751.204 | 3751.204 | 3751.204 | 3751.204 | 3751.204 | 3751.204 | 3751.204 | 3751.204 | 3751.204 | 177 |
| Blanking plates (rear panel) | | 3 | 3746.000 | 3746.000 | 3747.000 | 3747.000 | 3748.000 | 3748.000 | 3748.000 | 3749.000 | 3749.000 | – |
| Front door, vertically hinged | | 1 | – | – | – | – | 3751.300 | 3751.300 | 3751.300 | 3751.310 | 3751.310 | 177 |
| Slide rails | | 2 | 3751.500 | 3751.510 | 3751.500 | 3751.520 | 3751.500 | 3751.510 | 3751.520 | 3751.510 | 3751.520 | 176 |
| Mounting angles 482.6 mm (19") | | 2 | 3751.650 | 3751.650 | 3751.660 | 3751.660 | 3751.670 | 3751.670 | 3751.670 | 3751.680 | 3751.680 | 175 |
| Threaded inserts with M4 thread | | 8 | 3751.700 | 3751.700 | 3751.710 | 3751.710 | 3751.720 | 3751.720 | 3751.720 | 3751.730 | 3751.730 | 175 |
| End section | | 2 | – | – | – | – | 3751.900 | 3751.900 | 3751.900 | 3751.910 | 3751.910 | 176 |

¹⁾ Extended delivery times.

RiCase 482.6mm (19")



HE = U

Technical specifications:
 Depth: 300 mm, 420 mm, 540 mm
 Installation width:
 482.6 mm (19")
 Installation options:
 482.6 mm (19") slide-in
 equipment to IEC 60 297-3

Material/surface finish:
 Covers:
 Extruded aluminium section/
 die-cast, spray-finished
 Side panels:
 Extruded aluminium section,
 spray-finished
 Corner caps: Plastic
 482.6 mm (19") mounting
 bracket:
 Extruded aluminium section,
 clear-chromated

Colour:
 RAL 7035 (pale grey)
**Decorative colours and
 corner caps:**
 RAL 5018 (turquoise)
 RAL 5012 (pale blue)
 RAL 7030 (stone grey)
Protection category:
 IP 42 for unvented version.

Supply includes:
 2 side panels,
 2 covers,
 8 corner caps,
 8/12/16 cover caps
 (300/420/540 mm depth),
 2 482.6 mm (19") mounting
 brackets,
 2 threaded inserts,
 2 plain inserts.
 Enclosures are supplied
 partially assembled.

Note:
 For rear installation, order back
 panel/door separately.
**Special sizes and colours
 available on request.**
 Detailed drawings,
 see page 193.

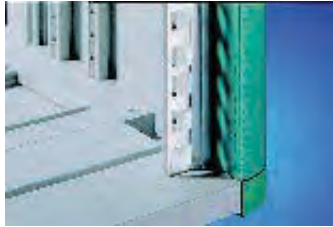
| Enclosure for subrack width 482.6 mm (19") | Packs of | 3U | | 4U | | 6U | | | 7U | | 9U | | 12U | Page |
|---|---------------------|------------|------------|------------|------------|------------|------------|--------------|------------|--------------|--------------|--------------|--------------|------|
| Height (H) mm | | 166.4 | 166.4 | 210.8 | 210.8 | 299.7 | 299.7 | 299.7 | 344.2 | 344.2 | 433.1 | 433.1 | 566.5 | |
| H1 (U) mm | | 133.8 | 133.8 | 178.3 | 178.3 | 267.2 | 267.2 | 267.2 | 311.7 | 311.7 | 400.6 | 400.6 | 534.0 | |
| Depth (T) mm | | 300.0 | 420.0 | 300.0 | 420.0 | 300.0 | 420.0 | 540.0 | 420.0 | 540.0 | 420.0 | 540.0 | 540.0 | |
| Not vented | | | | | | | | | | | | | | |
| Model No. RC, RAL 5018 | 1 | 3750.310 | 3750.320 | 3750.410 | 3750.420 | 3750.600 | 3750.610 | 3750.620 | 3750.700 | 3750.710 | 3750.900 | 3750.910 | 3750.000 | |
| Model No. RC, RAL 5012¹⁾ | 1 | 3750.312 | 3750.322 | 3750.412 | 3750.422 | 3750.602 | 3750.612 | 3750.622 | 3750.702 | 3750.712 | 3750.902 | 3750.912 | 3750.002 | |
| Model No. RC, RAL 7030¹⁾ | 1 | 3750.314 | 3750.324 | 3750.414 | 3750.424 | 3750.604 | 3750.614 | 3750.624 | 3750.704 | 3750.714 | 3750.904 | 3750.914 | 3750.004 | |
| Vented | | | | | | | | | | | | | | |
| Model No. RC, RAL 5018 | 1 | 3750.330 | 3750.340 | 3750.430 | 3750.440 | 3750.630 | 3750.640 | 3750.650 | 3750.720 | 3750.730 | 3750.920 | 3750.930 | 3750.030 | |
| Model No. RC, RAL 5012¹⁾ | 1 | 3750.332 | 3750.342 | 3750.432 | 3750.442 | 3750.632 | 3750.642 | 3750.652 | 3750.722 | 3750.732 | 3750.922 | 3750.932 | 3750.032 | |
| Model No. RC, RAL 7030¹⁾ | 1 | 3750.334 | 3750.344 | 3750.434 | 3750.444 | 3750.634 | 3750.644 | 3750.654 | 3750.724 | 3750.734 | 3750.924 | 3750.934 | 3750.034 | |
| Weight (kg) | vented/ unvented | 5.3 5.4 | 6.9 7.1 | 5.7 7.2 | 7.5 7.7 | 6.5 6.6 | 8.5 8.7 | 10.8 12.2 | 9.1 9.3 | 11.5 12.9 | 10.1 10.3 | 12.9 14.3 | 15.0 16.4 | |

Accessories

| | | | | | | | | | | | | | | |
|---|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----|
| Carrying handles, horizontal | 2 | 3751.250 | 3751.260 | 3751.250 | 3751.260 | 3751.250 | 3751.260 | 3751.270 | 3751.260 | 3751.270 | 3751.260 | 3751.270 | 3751.270 | 176 |
| Support stand/ carrying handle | RAL 5018 | 1 | 3751.210 | 3751.210 | 3751.210 | 3751.210 | 3751.210 | 3751.210 | 3751.210 | 3751.210 | 3751.210 | 3751.210 | 3751.210 | 177 |
| | RAL 5012 ¹⁾ | 1 | 3751.212 | 3751.212 | 3751.212 | 3751.212 | 3751.212 | 3751.212 | 3751.212 | 3751.212 | 3751.212 | 3751.212 | 3751.212 | 177 |
| | RAL 7030 ¹⁾ | 1 | 3751.214 | 3751.214 | 3751.214 | 3751.214 | 3751.214 | 3751.214 | 3751.214 | 3751.214 | 3751.214 | 3751.214 | 3751.214 | 177 |
| Back panel, screw-fastened | 1 | 3751.600 | 3751.600 | 3751.610 | 3751.610 | 3751.620 | 3751.620 | 3751.620 | 3751.630 | 3751.630 | 3751.530 | 3751.530 | 3751.540 | 179 |
| Rear door, vertically hinged | 1 | 3751.100 | 3751.100 | 3751.110 | 3751.110 | 3751.120 | 3751.120 | 3751.120 | 3751.130 | 3751.130 | - | - | - | 179 |
| Rear door for fan installation | 1 | 3751.150 | 3751.150 | 3751.160 | 3751.160 | 3751.170 | 3751.170 | 3751.170 | 3751.180 | 3751.180 | - | - | - | 180 |
| Front door, vertically hinged | 1 | 3751.320 | 3751.320 | 3751.330 | 3751.330 | 3751.340 | 3751.340 | 3751.340 | 3751.350 | 3751.350 | - | - | - | 177 |
| Slide rails | 2 | 3751.500 | 3751.510 | 3751.500 | 3751.510 | 3751.500 | 3751.510 | 3751.520 | 3751.510 | 3751.520 | 3751.510 | 3751.510 | 3751.520 | 176 |
| Mounting angles 482.6 mm (19") | 2 | 3751.670 | 3751.670 | 3751.680 | 3751.680 | 3751.690 | 3751.690 | 3751.690 | 3751.640 | 3751.640 | 3751.780 | 3751.780 | 3751.790 | 175 |
| Threaded inserts with M4 thread | 8 | 3751.720 | 3751.720 | 3751.730 | 3751.730 | 3751.740 | 3751.740 | 3751.740 | 3751.750 | 3751.750 | 3751.760 | 3751.760 | 3751.770 | 175 |
| End section | 2 | 3751.900 | 3751.900 | 3751.910 | 3751.910 | 3751.920 | 3751.920 | 3751.920 | 3751.930 | 3751.930 | 3751.820 | 3751.820 | 3751.830 | 176 |

¹⁾ Extended delivery times.

RiCase accessories



Mounting angles 482.6 mm (19")

For front/rear installation of subracks and blanking plates.

Material:
Extruded aluminium section, clear-chromated

Supply includes:
Assembly parts.

Note:
1 pack of threaded inserts and 2 packs of mounting rails and spacers are required for depth-adjustable installation.

| For enclosure height | Packs of | Model No. RC |
|----------------------|----------|--------------|
| 1U | 2 | 3751.650 |
| 2U | 2 | 3751.660 |
| 3U | 2 | 3751.670 |
| 4U | 2 | 3751.680 |
| 6U | 2 | 3751.690 |
| 7U | 2 | 3751.640 |
| 9U | 2 | 3751.780 |
| 12U | 2 | 3751.790 |

! Also required:

Threaded inserts, see page 175.
Mounting rails, see page 175.
Spacers, see page 175.



Threaded inserts with M4 thread for RiCase

For the installation of mounting angles, slide rails, mounting kits, cable ducts etc. Simply slide into the channels in the side panels.

Material:
Extruded aluminium section, clear-chromated

| For enclosure height | Packs of | Model No. RC |
|----------------------|----------|--------------|
| 1U | 8 | 3751.700 |
| 2U | 8 | 3751.710 |
| 3U | 8 | 3751.720 |
| 4U | 8 | 3751.730 |
| 6U | 8 | 3751.740 |
| 7U | 8 | 3751.750 |
| 9U | 8 | 3751.760 |
| 12U | 8 | 3751.770 |



Mounting rails

- For depth-variable installation of mounting angles
- For the installation of component shelves, static or pull-out

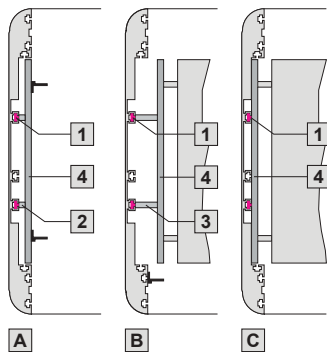
Material:
Aluminium, clear-chromated

Supply includes:
Assembly parts.

| For enclosure depth mm | Packs of | Model No. RC |
|------------------------|----------|--------------|
| 300 | 2 | 3751.400 |
| 420 | 2 | 3751.410 |
| 540 | 2 | 3751.420 |

! Also required:

Threaded inserts, see page 175.
Spacers, see page 175.



A Version for depth-variable mounting angles

B Component shelf installation for 482.6 mm (19") (width 409 mm, also with telescopic slides)

C Direct component shelf installation (width 471 mm)

- 1** Threaded inserts
- 2** Short spacers
- 3** Long spacers
- 4** Mounting rails



Spacers

For the attachment of mounting rails.

| Design | Packs of | Model No. RC |
|--|----------|--------------|
| Short for depth-variable mounting bracket | 4 | 3751.450 |
| Long for component shelf installation (width 409 mm) | 4 | 3751.460 |

RiCase accessories



Side rails

To support heavy installed equipment.

Material:

1.5 mm sheet steel, passivated

Supply includes:

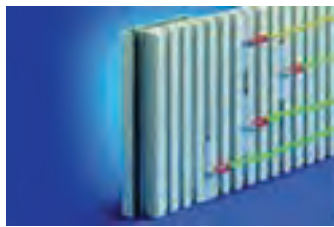
Assembly parts.

| For enclosure depth mm | Packs of | Model No. RC |
|------------------------|----------|--------------|
| 300 | 2 | 3751.500 |
| 420 | 2 | 3751.510 |
| 540 | 2 | 3751.520 |



Also required:

Threaded inserts, see page 175.



Earthing set for RiCase

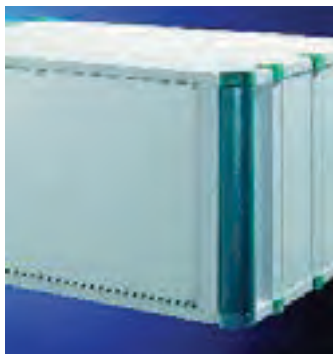
for RiCase

To meet electrical protective measures; fits all RiCase enclosures.

Supply includes:

Threaded insert, screw, green/yellow connection cable, serrated washer, nut.

| Packs of | Model No. VC |
|----------|--------------|
| 4 | 3798.000 |



Rear trim

To cover the sides to the left and right of the subrack when no rear door or rear panel is used.

Material:

Extruded aluminium section, spray-finished

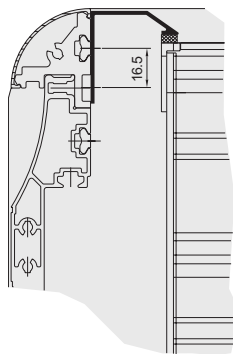
Colour:

RAL 7035

Supply includes:

Assembly parts.

| For enclosure height | Packs of | Model No. RC |
|----------------------|----------|--------------|
| 3U | 2 | 3751.900 |
| 4U | 2 | 3751.910 |
| 6U | 2 | 3751.920 |
| 7U | 2 | 3751.930 |
| 9U | 2 | 3751.820 |
| 12U | 2 | 3751.830 |



Carrying handles

horizontal

For easy, secure transportation.

- May be retrofitted
- Load capacity 30 kg/pair

Material:

Side parts: Die-cast, spray-finished
Centre part: Extruded aluminium section, spray-finished

Colour:

RAL 7035

Supply includes:

Assembly parts.

| For enclosure depth mm | Packs of | Model No. RC |
|------------------------|----------|--------------|
| 300 | 2 | 3751.250 |
| 420 | 2 | 3751.260 |
| 540 | 2 | 3751.270 |

RiCase accessories



1



2



3

Support stand/carrying handle

- Support stand/carrying handle adjustable in 30° increments
- Suitable for retrofitting to 2 – 7 U
- For 269.2 mm (1½ 19") and 482.6 mm (19") wide enclosures
- Load capacity 30 kg

Material:

Hinged part: Die-cast, spray-finished
Centre part: Extruded aluminium section, spray-finished with plastic cover

Colour:

RAL 7035

Decorative colours:

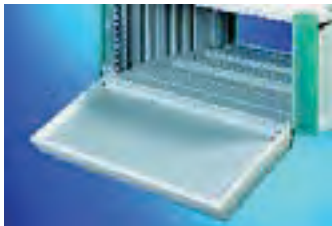
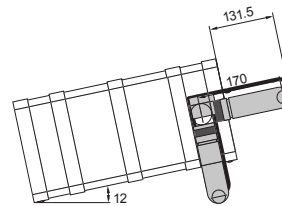
- 1 RAL 7030 (stone grey)
- 2 RAL 5018 (turquoise)
- 3 RAL 5012 (pale blue)

Supply includes:

Assembly parts.

| For enclosure width mm | Decorative colour RAL | W mm | Model No. RC |
|------------------------|-----------------------|------|-----------------|
| 269.2 (1½ 19") | 5018 | 392 | 3751.200 |
| 269.2 (1½ 19") | 5012 ¹⁾ | 392 | 3751.202 |
| 269.2 (1½ 19") | 7030 ¹⁾ | 392 | 3751.204 |
| 482.6 (19") | 5018 | 605 | 3751.210 |
| 482.6 (19") | 5012 ¹⁾ | 605 | 3751.212 |
| 482.6 (19") | 7030 ¹⁾ | 605 | 3751.214 |

W = Overall width of handle

¹⁾ Extended delivery times.**Keyboard lid**

Suitable for the installation of 482.6 mm (19") keyboards.

- Horizontally hinged with security lock
- Removable cover plate

Material:

Frame section: Extruded aluminium section/die-cast, spray-finished
Base and cover plate: Aluminium, spray-finished

Colour:

RAL 7035

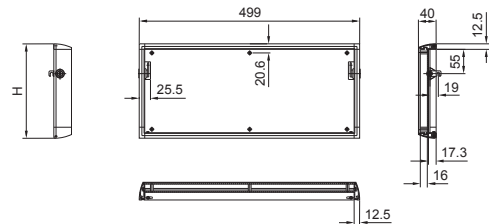
Supply includes:

Assembly parts.

| For enclosure width mm | H (U) | Packs of | Model No. RC |
|------------------------|-------|----------|-----------------|
| 482.6 (19") | 4 | 1 | 3751.800 |
| 482.6 (19") | 6 | 1 | 3751.810 |

Note:

Use only in conjunction with support stand/carrying handle.

**Front door vertically hinged**

For mechanical protection of built-in control components.

- Optionally hinged on the right or left
- With security lock

Material:

Frame section: Extruded aluminium section, spray-finished
Corner pieces: Die-cast aluminium, spray-finished
Glazed pane: Light grey acrylic

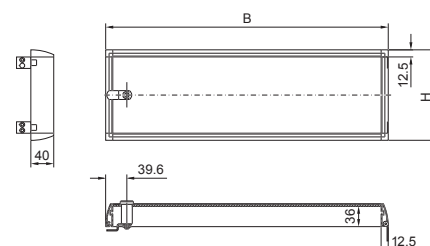
Colour:

RAL 7035

Supply includes:

Assembly parts.

| For enclosure width mm | W (B) mm | H (U) | Model No. RC |
|------------------------|----------|-------|-----------------|
| 269.2 (1½ 19") | 289 | 3 | 3751.300 |
| 269.2 (1½ 19") | 289 | 4 | 3751.310 |
| 482.6 (19") | 503 | 3 | 3751.320 |
| 482.6 (19") | 503 | 4 | 3751.330 |
| 482.6 (19") | 503 | 6 | 3751.340 |
| 482.6 (19") | 503 | 7 | 3751.350 |



RiCase accessories



Aluminium front door vertically hinged

For mechanical protection of built-in control components.

- Optionally hinged on the right or left
- With security lock

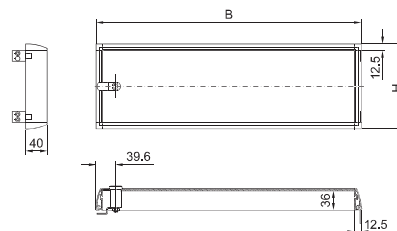
Material:

Frame section: Extruded aluminium section, spray-finished
 Corner pieces: Die-cast aluminium, spray-finished
 Aluminium plate

Colour:
 RAL 7035

Supply includes:
 Assembly parts.

| For enclosure width mm | W (B) mm | H (U) | Model No. RC |
|------------------------|----------|-------|--------------|
| 482.6 (19") | 503 | 3 | 3751.360 |
| 482.6 (19") | 503 | 4 | 3751.370 |
| 482.6 (19") | 503 | 6 | 3751.380 |



Front door

for tower enclosure

For mechanical protection of built-in control components.

- Optionally hinged on the right or left
- With security lock

Material:

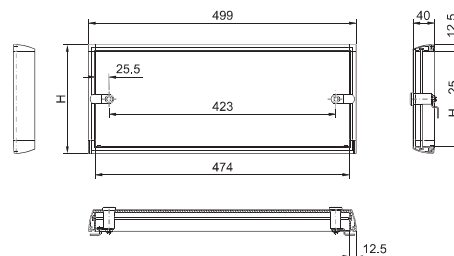
Frame section: Extruded aluminium section, spray-finished
 Corner pieces: Die-cast aluminium, spray-finished
 Glazed pane: Light grey acrylic

Colour:
 RAL 7035

Supply includes:
 Assembly parts.

| For enclosure width mm | W mm | H (U) | Model No. RC |
|------------------------|------|-------|--------------|
| 482.6 (19") | 503 | 3 | 3751.390 |
| 482.6 (19") | 503 | 4 | 3751.430 |

W = Overall width of front door



RiCase accessories



1



2



3

Tower feet

For vertical siting of enclosures. May be retrofitted.

Material:
Plastic to UL 94-V0, self-extinguishing

Decorative colours:

- 1 RAL 7030 (stone grey)
- 2 RAL 5018 (turquoise)
- 3 RAL 5012 (pale blue)

Supply includes:
4 tower feet, assembly parts.

| Decorative colour RAL | Packs of | Model No. RC |
|-----------------------|----------|--------------|
| 5018 | 1 set | 3751.850 |
| 5012 | 1 set | 3751.852 |
| 7030 | 1 set | 3751.854 |

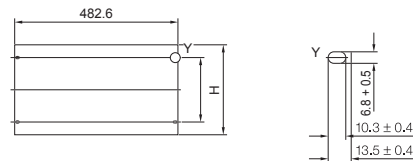


Back panel screw-fastened

To close off the rear.

Material:
2/3 mm aluminium, natural anodised

Supply includes:
Two 482.6 mm (19") mounting brackets, assembly parts.



| For enclosure width mm | H (U) | Packs of | Model No. RC |
|------------------------|-------|----------|--------------|
| 482.6 (19") | 3 | 1 | 3751.600 |
| 482.6 (19") | 4 | 1 | 3751.610 |
| 482.6 (19") | 6 | 1 | 3751.620 |
| 482.6 (19") | 7 | 1 | 3751.630 |
| 482.6 (19") | 9 | 1 | 3751.530 |
| 482.6 (19") | 12 | 1 | 3751.540 |

Custom variations available upon request.



Rear door

vertically hinged

To close off the rear.

- Hinged, with security lock
- Optionally hinged on the left or right

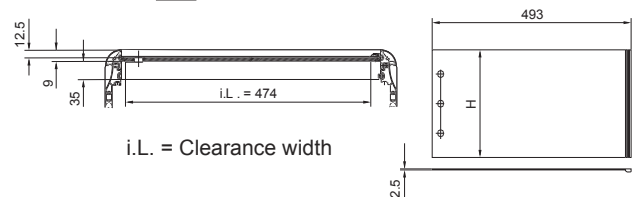
Material:
Aluminium, spray-finished

Colour:
RAL 7035

Supply includes:
Assembly parts.

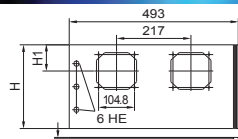
| For enclosure width mm | H (U) | Packs of | Model No. RC |
|------------------------|-------|----------|--------------|
| 482.6 (19") | 3 | 1 | 3751.100 |
| 482.6 (19") | 4 | 1 | 3751.110 |
| 482.6 (19") | 6 | 1 | 3751.120 |
| 482.6 (19") | 7 | 1 | 3751.130 |

Custom variations available upon request.



i.L. = Clearance width

RiCase accessories



HE = U

Rear door for fan installation

- To close off the rear.
- With security lock
 - Optionally hinged on the left or right
 - For the installation of 120 mm fans

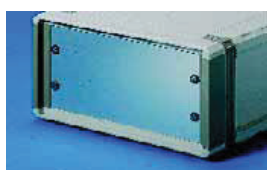
Material:
Aluminium, spray-finished

Colour:
RAL 7035

Supply includes:
Assembly parts.

| For enclosure width mm | H (U) | H1 mm | Model No. RC |
|------------------------|-------|-------|--------------|
| 482.6 (19") | 3 | 66.65 | 3751.150 |
| 482.6 (19") | 4 | 88.90 | 3751.160 |
| 482.6 (19") | 6 | 83.50 | 3751.170 |
| 482.6 (19") | 7 | 83.50 | 3751.180 |

Custom variations available upon request.



Blanking plate

For the installation in electronic enclosures or housings.

Material:
Aluminium, natural-anodised

| U | Packs of | Model No. VC | |
|----|----------|----------------------|----------------|
| | | 269.2 mm (1 1/2 19") | 482.6 mm (19") |
| 1 | 3 | 3746.000 | 1931.200 |
| 2 | 3 | 3747.000 | 1932.200 |
| 3 | 3 | 3748.000 | 1933.200 |
| 4 | 3 | 3749.000 | 1934.200 |
| 6 | 3 | | 1936.200 |
| 7 | 3 | | 1935.200 |
| 9 | 3 | | 1939.200 |
| 12 | 3 | | 1937.200 |



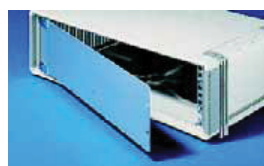
Blanking plate horizontally hinged

For the installation in electronic enclosures or housings.

Material:
3 mm aluminium, natural-anodised
Hinge: Die-cast zinc, zinc-plated

Supply includes:
Assembly parts.

| Width | U | Packs of | Model No. EL |
|----------------|---|----------|--------------|
| 482.6 mm (19") | 3 | 1 | 1944.000 |
| 482.6 mm (19") | 6 | 1 | 1945.000 |



Blanking plate vertically hinged

For the installation in electronic enclosures or housings.

Material:
3 mm aluminium, natural-anodised
Hinge: Die-cast zinc, zinc-plated

Supply includes:
Assembly parts.

| Width | U | Packs of | Model No. EL |
|----------------|---|----------|--------------|
| 482.6 mm (19") | 3 | 1 | 1940.000 |
| 482.6 mm (19") | 6 | 1 | 1941.000 |



Hinge for blanking plates

Material:
Die-cast zinc, zinc-plated

Supply includes:
Assembly parts.

| Packs of | Model No. EL |
|----------|--------------|
| 2 | 1950.000 |



Assembly screws

M6 x 15 mm
For electronic equipment, 482.6 mm (19") installed components and blanking plates.

Supply includes:
Plastic washers.

| Design | Packs of | Model No. EL |
|------------------------|----------|--------------|
| Cheese-head screw M6 | 100 | 2093.200 |
| Phillips-head screw M6 | 100 | 2089.000 |

RiCase accessories

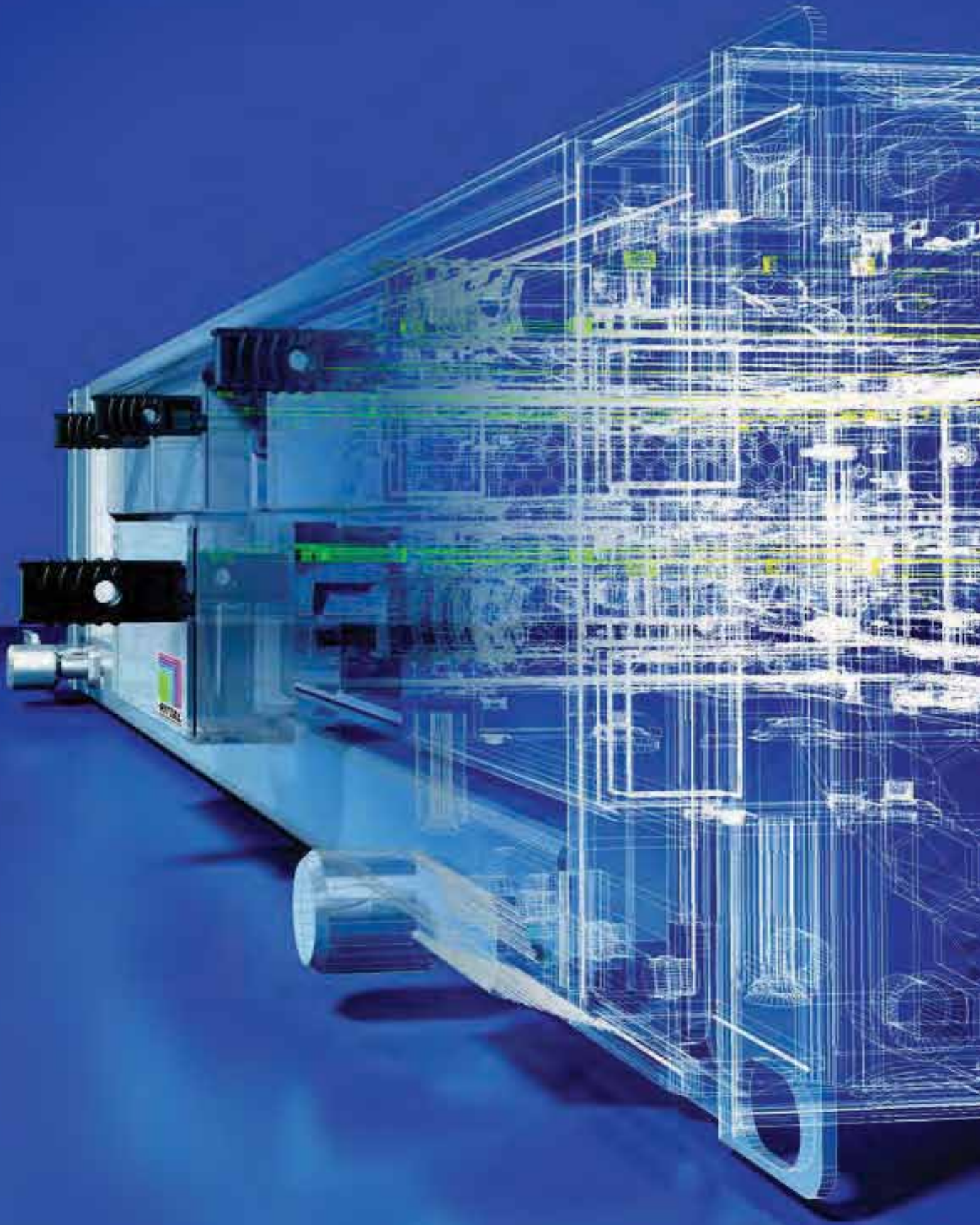


Captive nuts M6

For the attachment of rack-mounted electronic equipment, 482,6 mm (19 ") installed equipment and blanking plates to mounting angles, 482,6 mm (19").

For use with metal thickness from 0.8 – 2.0 mm. In areas of narrow tolerance, captive nuts for metal thicknesses of 1.2 – 1.5 mm should be used. Optionally with or without contact of the installed equipment to the 482.6 mm (19 ") section/ enclosure.

| Design | For metal thicknesses mm | Packs of | Model No. EL |
|-----------------|--------------------------|----------|-----------------|
| With contact | 0.8 – 2.0 | 50 | 2094.200 |
| Without contact | 0.8 – 2.0 | 50 | 2092.200 |
| With contact | 1.2 – 1.5 | 50 | 2094.300 |
| Without contact | 1.2 – 1.5 | 50 | 2092.300 |



Technical Details

Power supplies

from page 184

Subracks

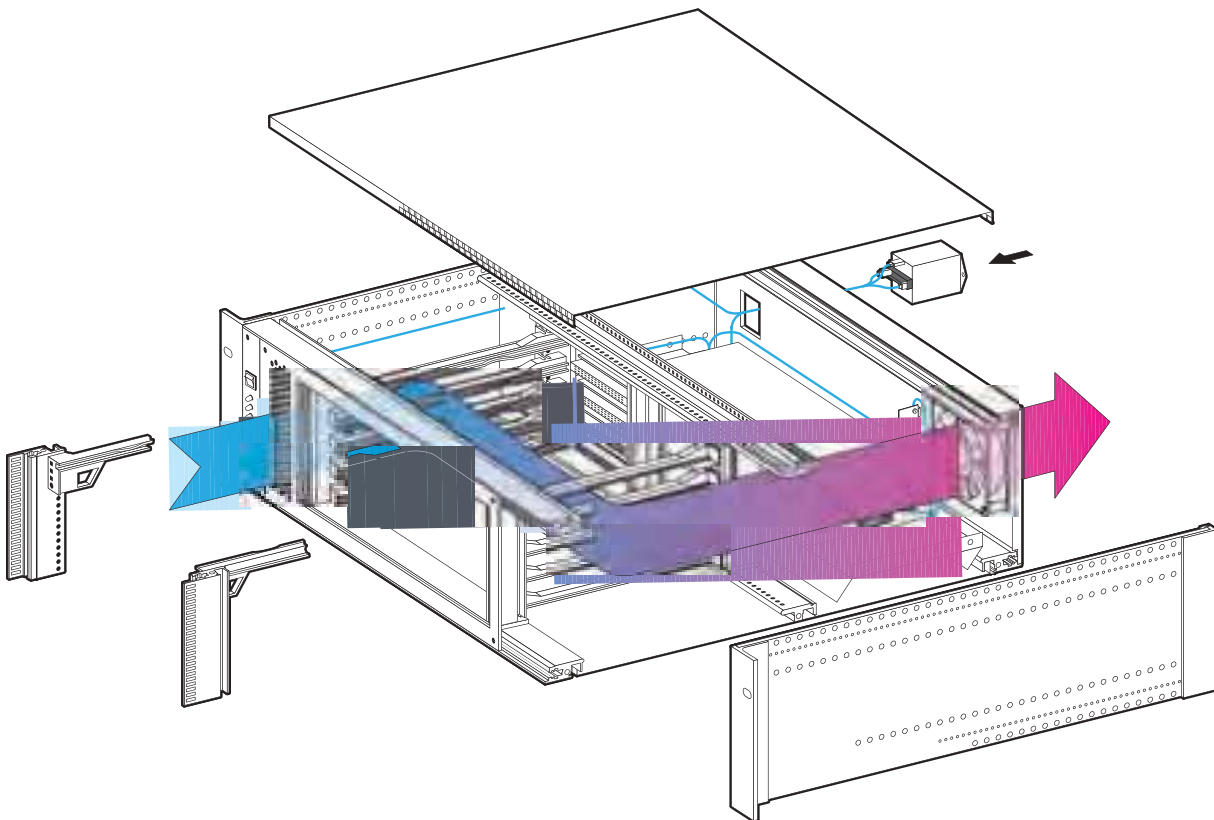
from page 186

Instrument cases/system enclosures

from page 191

EMC diagram for Ripac Vario EMC

from page 194



Power supplies

Ripac power supplies for VME, plug-in

General specifications

| | | | | |
|------------------------------------|---|----------|---|----------|
| Height | 3U | | 6U | |
| Width (HP) | 10 | 12 | 8 | 12 |
| Model No. RP power supply | 3686.469 | 3686.470 | 3686.471 | 3685.306 |
| Model No. RP front panel | 3685.304 | 3685.305 | 3686.472 | 3685.307 |
| Operating temperature range | 0°C to +70°C with free convection | | 0°C to +70°C with free convection | |
| Storage temperature | -20°C to +85°C | | 0°C to +85°C | |
| Output reduction | 3 %/K from +50°C | | 3 %/K from +50°C | |
| Mass | 10 HP: 0.7 kg, 12 HP: 0.8 kg | | 8 HP: 1.2 kg, 12 HP: 2 kg | |
| Mains buffering | > 20 ms at 100 % load | | > 20 ms at 100 % load | |
| Radio interference suppression | EN 50 081-1, EN 55 011/EN 55 022 curve B Interfering radiation depending on installation | | EN 50 081-1, EN 55 011/EN 55 022 curve B Interfering radiation depending on installation | |
| Immunity to interference/immission | EN 50 082-2 EN 61 000-4-2 Level 4 EN 61 000-4-3 Level 3 EN 61 000-4-4 Level 4 EN 61 000-4-5 Level 4 EN 61 000-4-11 compliant | | EN 50 082-2 EN 61 000-4-2 Level 4 EN 61 000-4-3 Level 3 EN 61 000-4-4 Level 4 EN 61 000-4-5 Level 4 EN 61 000-4-11 compliant | |
| Connection | Connector H15, IEC 60 603-2 keyable | | 2 connectors H15, IEC 60 603-2 keyable | |
| Approvals LGS design-tested | IEC 950/EN 60 950/VDE 0805 Protection category I/VDE 0100 EN 61 000-4-3 interference level 10 V/m EN 61 000-4-11 | | IEC 950/EN 60 950/VDE 0805 Protection category I/VDE 0100 EN 61 000-4-3 interference level 10 V/m EN 61 000-4-11 | |

- 482.6 mm (19") module to IEC 60 297-3.
- Automatic changeover 115/230 V AC.
- All outputs are continuously short-circuit resistant.
- Overtemperature protection.
- AC-FAIL and SYSRESET signals.
- Integrated VME bus signals (AC-FAIL, SYSRESET).
- Design-tested: EN 60 950/VDE 0805 protection category I, VDE 0100.
- EMC standards EN 50 081-1 and 50 082-2.

PE earthing contact:

Must be connected to the PE conductor of the mains supply network!

L1/N: Mains conductors

L: Load connection

F: Sensor connection (sense)

0 VL: Common ground for outputs 1 – 3.

With sensor lead operation

(5 V only):

Max. voltage compensation per lead 0.25 V.

The sensor lead must be connected to the load.

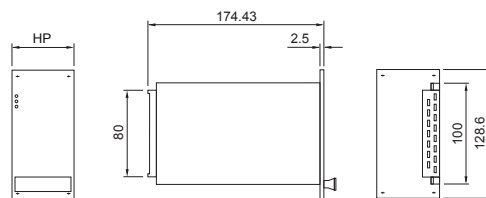
Without sensor lead operation:

For safe operation of the unit, +5 VL must be connected to +5 VF and 0 VL to 0 VF.

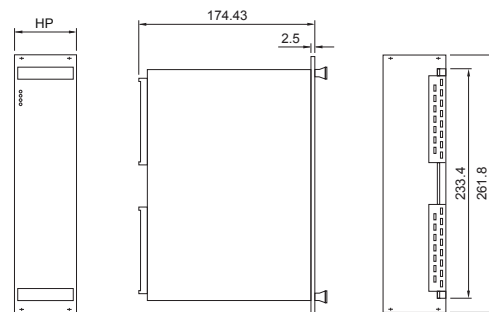
Caution:

Fire protection must be provided via the superordinate enclosure system!

3U

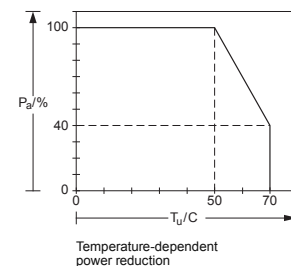
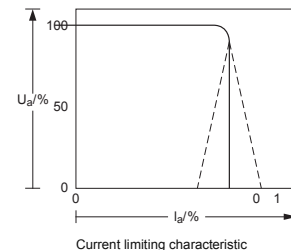


6U



Connector assignment H15, IEC 60 603-2 (DIN 41 612)

| | 3U | 6U | |
|-----|-------------------------------------|---------------|---------------------|
| Pin | Function | Function (P1) | Function (P2) |
| 4 | +5 VF | +5 VL | AC-FAIL |
| 6 | 0 VF | +5 VL | SYSRESET |
| 8 | +5 VF | +5 VL | assigned internally |
| 10 | 0 VF | +5 VL | assigned internally |
| 12 | +5 VF | +5 VF | assigned internally |
| 14 | 0 VL | +5 VF | assigned internally |
| 16 | SYSRESET | -12 VL | assigned internally |
| 18 | 0 VL | 0 VL | mains-related |
| 20 | +12 VL | 0 VL | mains-related |
| 22 | -12 VL | 0 VL | mains-related |
| 24 | AC-FAIL | 0 VL | mains-related |
| 26 | assigned internally (mains-related) | 0 VL | mains-related |
| 28 | L1 | +12 VL | L1 |
| 30 | N | +12 VL | N |
| 32 | PE | 0 VF | PE |

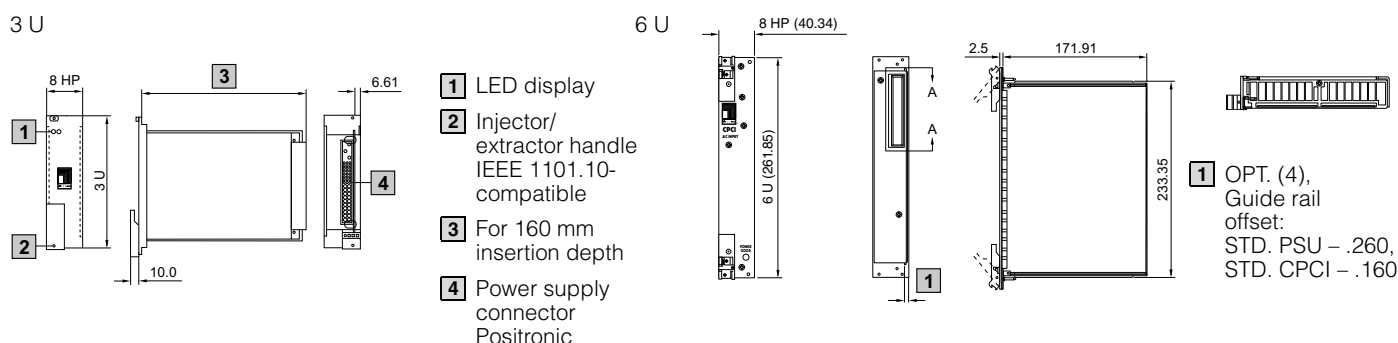


Power supplies

Ripac power supplies for cPCI plug-in

General specifications

| | | | | |
|---|--|-----------------|-----------------|--------------------------------|
| Height | 3 U | | | 6 U |
| Width (HP) | 8 HP | | | 8 HP |
| Model No. RP AC power supply | 3688.534 | 3688.694 | 3688.695 | 3688.528 |
| Model No. RP DC power supply | 3688.537 | 3688.655 | 3688.696 | 3688.530 |
| Current sharing parallel N+1 operation (redundancy) | U ₁ , U ₂ and U ₃ , internal diodes, "hotswap"-compatible | | | |
| Operating temperature range | 0° to 70°C (0° – 50°C full load), 50°C to 70°C, linear derating | | | |
| Cooling | Min. 15 cfm for full load | | | Min. 90 cfm for full load |
| Storage temperature | -40°C to +85°C | | | |
| Rel. humidity | < 90 % non-condensing | | | |
| Weight | approx. 1 kg | | | approx. 2.4 kg |
| MTBF | 150,000 h at an ambient temperature of 25°C | | | |
| Handle | Type VII, Model No. RP 3686.135 | | | |
| Guide rail | 2.54 mm offset, Model No. RP 3687.832 | | | |
| EMC | FCC Level B, EN 55 022 Level B (conducted) | | | FCC Level A, EN 55 022 Level A |
| Connectors | Positronic 47-pin, PICMG 2.11 | | | |
| Approvals | EN 60 950 A1 – A4, CSA 22.2, UL 1950, CE | | | |



Connector assignment 3 U

| Pin# | SEQ ¹⁾ | FUNCTION |
|---------|-------------------|---|
| 01 – 04 | 2 | +5.0 V V 1 Output |
| 05 – 12 | 2 | GND V 1 + V 2 Return |
| 13 – 18 | 2 | +3.3 V V 2 Output |
| 19 | 2 | GND V 3 Return |
| 20 | 2 | +12.0 V V 3 Output |
| 21 | 2 | -12.0 V V 4 Output |
| 22 | 2 | RTN Signal Return |
| 23 | 2 | N/C No Connection (Reserved) |
| 24 | 2 | GND V 4 Return |
| 25, 26 | 2 | N/C No Connection (Reserved) |
| 27 | 3 | R/EN Remote Enable, Close circuit to GND |
| 28, 29 | 2 | N/C No Connection (Reserved) |
| 30 | 2 | + S 1 +5.0 V (V 1) Remote Sense |
| 31, 32 | 2 | N/C No Connection (Reserved) |
| 33 | 2 | + S 2 +3.3 V (V 2) Remote Sense |
| 34 | 2 | S-RTN Sense Return for V 1, V 2, V 3 |
| 35 | 3 | N/C No Connection (Reserved) |
| 36 | 2 | + S 3 +12.0 V (V 3) Remote Sense |
| 37 | 2 | N/C No Connection (Reserved) |
| 38 | 2 | DEG Overtemperature |
| 39 | 2 | R/INH Remote Inhibit, Close circuit to GND |
| 40 | 2 | N/C No Connection (Reserved) |
| 41 | 3 | N/C No Connection (Reserved) |
| 42 | 2 | PF Power Fail Signal |
| 43 | 2 | N/C No Connection (Reserved) |
| 44 | 3 | N/C No Connection (Reserved) |
| 45 | 1 | PE Protective Earth (chassis) Safety Ground |
| 46 | 2 | ACC Neutral (N) AC Power Input/+DC Input |
| 47 | 2 | AC Line (L) AC Power Input/-DC Input |

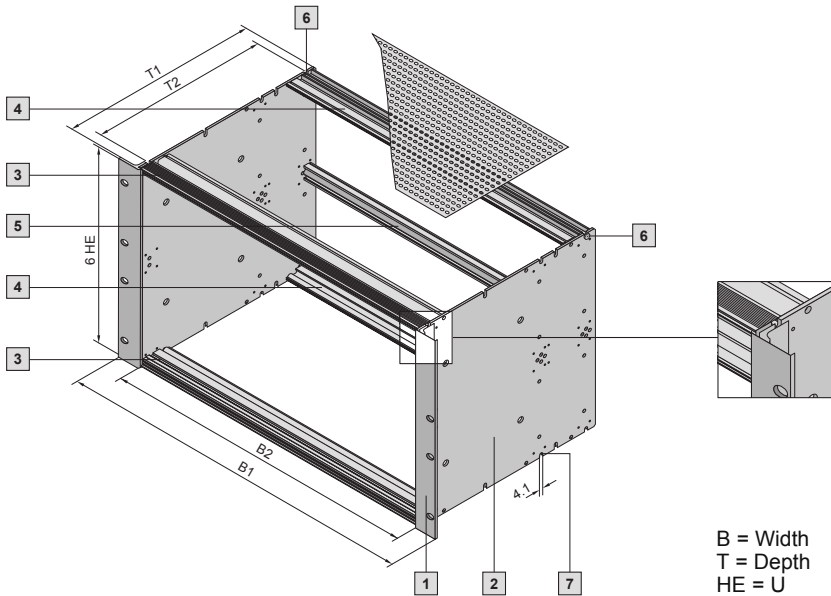
¹⁾Contact mating sequence
1 = First to make/Last to break

Connector assignment 6 U

| Pin# | SEQ ¹⁾ | FUNCTION |
|---------|-------------------|---|
| 01 – 04 | 2 | +5.0 V V 1 Output |
| 05 – 12 | 2 | GND V 1 + V 2 Return |
| 13 – 18 | 2 | +3.3 V V 2 Output |
| 19 | 2 | GND V 3 Return |
| 20 | 2 | +12.0 V V 3 Output |
| 21 | 2 | -12.0 V V 4 Output |
| 22 | 2 | RTN Signal Return |
| 23 | 2 | N/C No Connection (Reserved) |
| 24 | 2 | GND V 4 Return |
| 25, 26 | 2 | N/C No Connection (Reserved) |
| 27 | 3 | R/EN Remote Enable, Close circuit to GND |
| 28 | 2 | N/C No Connection (Reserved) |
| 29 | 2 | V 1-ADJ +5.0 V Remote Voltage Adjust |
| 30 | 2 | + S 1 +5.0 V (V 1) Remote Sense |
| 31 | 2 | N/C No Connection (Reserved) |
| 32 | 2 | V 2-ADJ +3.3 V Remote Voltage Adjust |
| 33 | 2 | + S 2 +3.3 V (V 2) Remote Sense |
| 34 | 2 | S-RTN Sense Return for V 1, V 2, V 3 |
| 35 | 3 | ISHR-1 +5.0 V (V 1) Current Share |
| 36 | 2 | + S 3 +12.0 V (V 3) Remote Sense |
| 37 | 2 | N/C No Connection (Reserved) |
| 38 | 2 | DEG Overtemperature |
| 39 | 2 | R/INH Remote Inhibit, Close circuit to GND |
| 40 | 2 | N/C No Connection (Reserved) |
| 41 | 3 | ISHR-2 +3.3 V (V 2) Current Share |
| 42 | 2 | PF Power Fail Signal |
| 43 | 2 | N/C No Connection (Reserved) |
| 44 | 3 | ISHR-3 +12.0 V (V 3) Current Share |
| 45 | 1 | PE Protective Earth (chassis) Safety Ground |
| 46 | 2 | ACC Neutral AC Power Input/+DC Input |
| 47 | 2 | AC Line AC Power Input/-DC Input |

Subracks

Key to drawings for Ripac EASY subracks



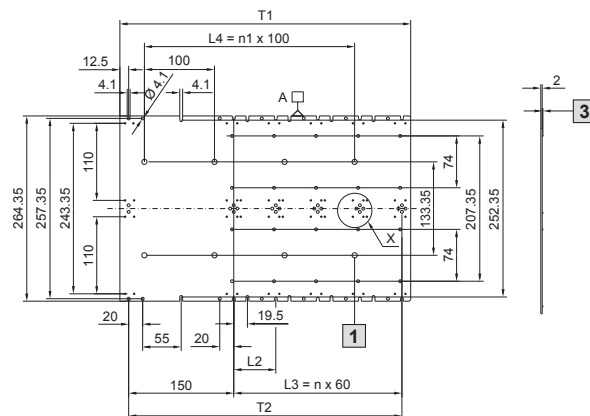
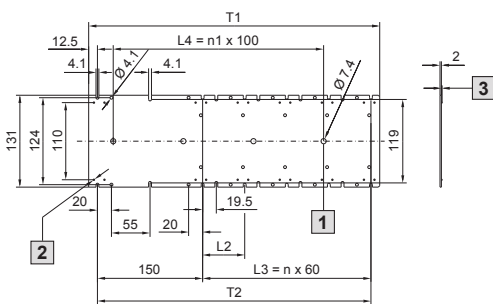
Illustrated here by the example of Ripac Vario EMC 6U

| | |
|----|--|
| B1 | 482.6 mm (19") |
| B2 | HP pitch units (at 19": 84 HP) |
| T1 | Side panel depth |
| T2 | Pitch |
| 7 | Mounting holes \varnothing 4.1 mm for screws M4 x 12 |

B = Width
T = Depth
HE = U

Ripac EASY 3U, 6U - supply includes

| Height units U | | | | | 3 | 6 | Page |
|----------------|-------------|---|-----------|----------|----------|----------|------|
| | | T1 mm | T2 mm | Packs of | | | |
| 2 | Side panels | 175 | 150 | 2 | 3634.695 | 3634.720 | 110 |
| | | 235 | 210 | 2 | 3634.700 | 3634.725 | |
| | | 295 | 270 | 2 | 3634.705 | 3634.730 | |
| | | 355 | 330 | 2 | 3634.710 | 3634.735 | |
| | | 415 | 390 | 2 | 3634.715 | 3634.740 | |
| 1 | Flanges 3 U | | 3634.745 | 2 | 2 | - | 111 |
| | Flanges 6 U | | 3634.750 | 2 | - | 2 | |
| 2 | Side panels | | see above | 2 | 2 | 2 | - |
| 3 | A2 | Rails front, including threaded inserts, screws | 3634.600 | 2 | 2 | 2 | 113 |
| 4 | C4 | Rails rear, including screws | 3634.615 | 2 | 2 | 2 | 113 |
| 5 | D3 | Horizontal rails, rear, centre | 3634.045 | 1 | - | 1 | 115 |
| 6 | | Assembly screws M4 x 12 (prefitted) | 3634.430 | 100 | 8 | 10 | 159 |



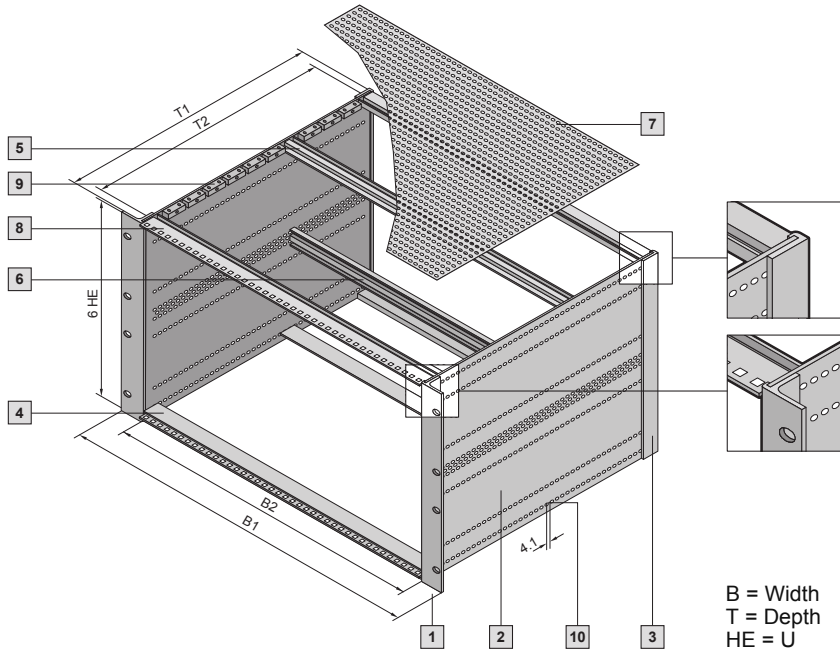
- 1 Drilled holes suitable for threaded inserts PEM-FM4-1
- 2 Half shear, \varnothing 2 mm
- 3 Half shear height 1 mm

B = Width
T = Depth

Subracks

Subracks

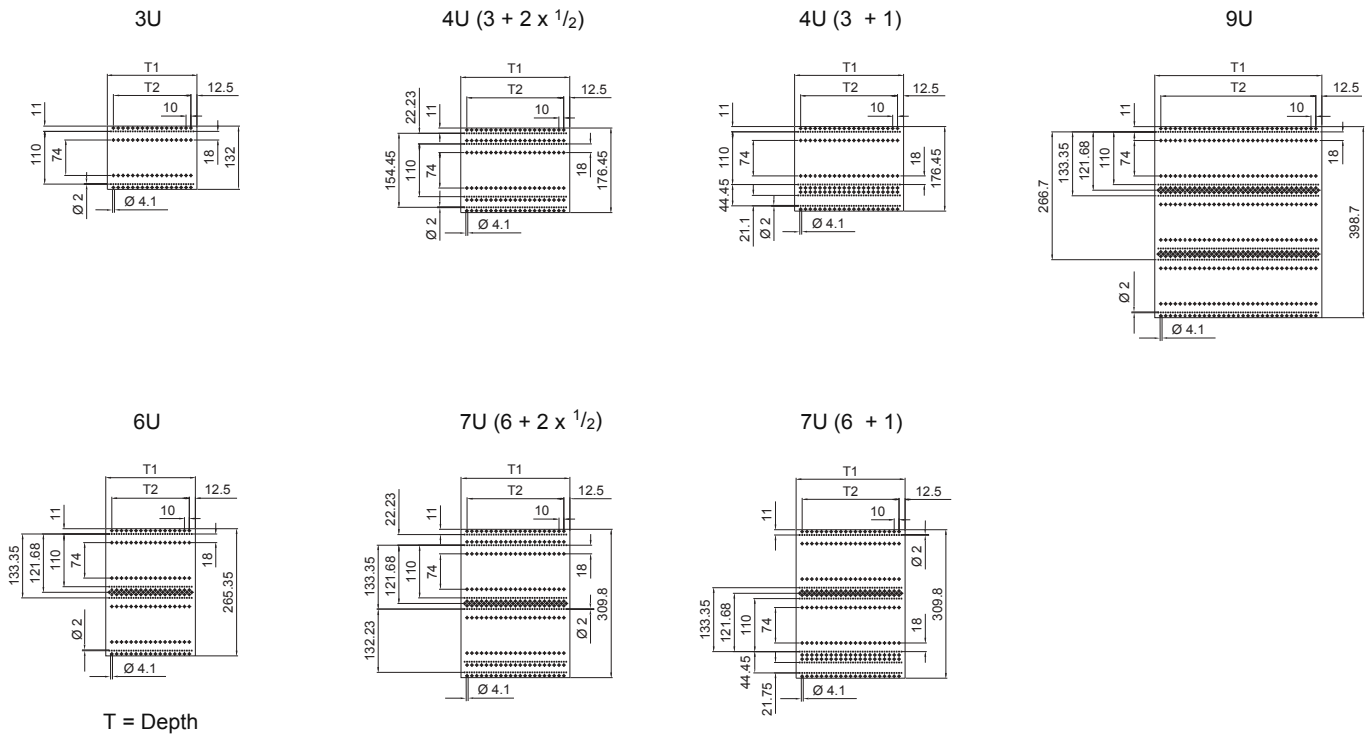
Key to all Ripac subrack drawings



Illustrated here by the example of Ripac Vario EMC 6U

| | |
|----|--|
| B1 | 482.6 mm (19") |
| B2 | HP pitch units (at 19": 84 HP) |
| T1 | Side panel depth |
| T2 | Pitch |
| 10 | Mounting holes \varnothing 4.1 mm for screws M4 x 12 |

Ripac Vario, Ripac Vario EMC



Subracks

Ripac Vario, Ripac Vario EMC 3U, 4U, 6U, 7U, 9U - supply includes

| Height units U | T1 mm | T2 mm | Packs of | 3 | 6 | 9 | 4 (3 + 1) | 4 (3 + 2 x 1/2) | 7 (6 + 1) | 7 (6 + 2 x 1/2) | Page |
|-----------------|-------|-------|----------|----------|----------|----------|-----------|-----------------|-----------|-----------------|------|
| [2] Side panels | 185 | 160 | 1 | 3684.511 | 3684.529 | - | - | - | - | - | 110 |
| | 225 | 200 | 1 | 3684.512 | 3684.530 | 3685.797 | 3685.793 | 3685.890 | 3685.896 | 3685.893 | |
| | 245 | 220 | 1 | 3684.513 | 3684.531 | - | 3685.850 | 3685.891 | 3685.897 | 3685.894 | |
| | 285 | 260 | 1 | 3684.514 | 3684.532 | - | 3684.523 | 3684.526 | 3685.743 | 3685.895 | |
| | 305 | 280 | 1 | 3684.515 | 3684.533 | 3685.798 | 3685.794 | - | - | - | |
| | 345 | 320 | 1 | 3684.516 | 3684.534 | 3684.547 | 3684.524 | 3684.527 | 3685.744 | 3685.745 | |
| | 365 | 340 | 1 | 3684.517 | 3684.535 | 3685.799 | 3685.795 | - | - | - | |
| | 405 | 380 | 1 | 3684.518 | 3684.536 | 3684.548 | 3684.525 | 3684.528 | 3684.541 | 3684.543 | |
| | 425 | 400 | 1 | 3684.519 | 3684.537 | - | - | - | - | - | |
| | 465 | 440 | 1 | 3684.520 | 3684.538 | 3684.549 | 3685.796 | 3685.892 | 3684.542 | 3684.544 | |
| | 525 | 500 | 1 | 3684.521 | 3684.539 | 3684.550 | - | - | 3685.898 | 3685.959 | |
| | 585 | 560 | 1 | 3684.522 | 3684.540 | 3684.551 | - | - | - | - | |

Subrack Ripac Vario

| PT | Model No. | Packs of | BP | C | BP | C | BP | C | BP | C | BP | C | BP | C | BP | BP | Page |
|------|---|-----------|----|----------|----------|----------|----------|----|----|---|----------|---|----|----|-----|----|------|
| [1] | Flanges | - | 1 | 3684.615 | 3684.617 | 3684.619 | 3684.616 | | | | 3684.618 | | | | 111 | | |
| [2] | Side panels | see above | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 110 |
| [4] | A Horizontal rails, front | 3684.562 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 116 |
| I | Threaded inserts | 3684.610 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 122 |
| [5] | C1 Horizontal rails, rear | 3684.572 | 1 | 2 | - | 2 | - | 2 | - | 2 | - | 2 | - | 2 | 2 | 2 | 118 |
| [6] | D1 Horizontal rails, rear, centre | 3684.582 | 1 | - | - | 1 | - | 2 | - | - | - | - | - | 1 | 1 | 1 | 120 |
| G | Insulating strips 21 HP | 3684.611 | 1 | 8 | - | 16 | - | 24 | - | 8 | - | 8 | - | 16 | 16 | 16 | 123 |
| C3 | Horizontal rails, rear, with Z rails | 3686.159 | 1 | - | 2 | - | 2 | - | 2 | - | 2 | - | 2 | - | - | - | 119 |
| D2 | Horizontal rails, rear, centre, with integral Z rails | 3687.602 | 1 | - | - | - | 1 | - | 2 | - | - | - | - | - | - | - | 120 |
| [10] | Assembly screws M4 x 12 | 3684.881 | 1 | 8 | 8 | 10 | 10 | 12 | 12 | 8 | 8 | 8 | 8 | 10 | 10 | 10 | - |

Subrack Ripac Vario EMC

| PT | Model No. | Packs of | BP | BP ¹⁾ | BP | BP ¹⁾ | BP | BP ¹⁾ | BP | BP ¹⁾ | BP | BP ¹⁾ | BP | BP ¹⁾ | BP | BP ¹⁾ | Page | |
|------|---|-----------|----|--------------------|----------|------------------|----------|------------------|----|------------------|----------|------------------|----|------------------|-----|------------------|------|-----|
| [1] | Flanges | - | 1 | 3684.615 | 3684.617 | 3684.619 | 3684.616 | | | | 3684.618 | | | | 111 | | | |
| [3] | Trim sections, rear | - | 1 | 3684.634 | 3684.636 | 3684.638 | 3684.635 | | | | 3684.637 | | | | 112 | | | |
| [2] | Side panels | see above | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 110 | |
| | EMC gaskets, vertical | - | 1 | 3686.975 | 3686.977 | 3686.979 | 3686.976 | | | | 3686.978 | | | | 124 | | | |
| [7] | Covers, vented | see below | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | 2 | 2 | - | - | - | |
| | Covers, L-shaped, 1/2 U, top solid/bottom vented at front | see below | 1 | - | - | - | - | - | - | - | 1/1 | 1/1 | - | - | 1/1 | 1/1 | - | |
| [9] | Mounting blocks | 3684.234 | 10 | Depending on depth | | | | | | | | | | | | | | 125 |
| K | EMC gaskets for covers | 3684.245 | 10 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 4 | 4 | 2 | 2 | 125 |
| [4] | A Horizontal rails, front | 3684.562 | 1 | 4 | 3 | 4 | 2 | 4 | 2 | 6 | 5 | 4 | 3 | 6 | 4 | 4 | 2 | 116 |
| I | Threaded inserts | 3684.610 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 4 | 4 | 6 | 6 | 4 | 4 | 122 |
| [8] | B Front horizontal rails with 10 mm extension | 3684.567 | 1 | - | 1 | - | 2 | - | 2 | - | 1 | - | 1 | - | 2 | - | 2 | 117 |
| [5] | C1 Horizontal rails, rear | 3684.572 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 118 |
| [6] | D1 Horizontal rails, rear, centre | 3684.582 | 1 | - | - | 1 | 1 | 2 | 2 | - | - | - | - | 1 | 1 | 1 | 1 | 120 |
| G | Insulating strips 21 HP | 3684.611 | 1 | 8 | 8 | 16 | 16 | 24 | 24 | 8 | 8 | 8 | 8 | 16 | 16 | 16 | 16 | 123 |
| [10] | Assembly screws M4 x 12 | 3684.881 | 1 | 12 | 12 | 14 | 14 | 16 | 16 | 16 | 16 | 12 | 12 | 18 | 18 | 14 | 14 | - |

Covers for Ripac Vario EMC

| Height units U | T1 mm | Packs of | 3 | 6 | 9 | 4 (3 + 1) | 4 (3 + 2 x 1/2) | 7 (6 + 1) | 7 (6 + 2 x 1/2) | Page |
|----------------|-------|----------|---|----------|---|-----------|---------------------------------|-----------|---------------------------------|------|
| [7] Top covers | 245 | 1 | | 3684.695 | | - | - | - | - | 134 |
| | 285 | 1 | | 3684.696 | | 3684.696 | 3684.732/3684.726 ²⁾ | 3684.696 | 3684.732/3684.726 ²⁾ | |
| | 305 | 1 | | 3685.852 | | - | - | - | - | |
| | 345 | 1 | | 3684.698 | | 3684.698 | 3684.733/3684.727 ²⁾ | 3684.698 | 3684.733/3684.727 ²⁾ | |
| | 405 | 1 | | 3684.700 | | 3684.700 | 3684.734/3684.728 ²⁾ | 3684.700 | 3684.734/3684.728 ²⁾ | |
| | 465 | 1 | | 3684.701 | | - | - | 3684.701 | 3684.735/3684.729 ²⁾ | |
| | 525 | 1 | | 3684.702 | | - | - | - | - | |
| | 585 | 1 | | 3684.703 | | - | - | - | - | |

BP = for backplane C = for DIN connector PT = rail type
¹⁾Front horizontal rails with 10 mm cover for injector/extractor handles (B) ²⁾vented/not vented

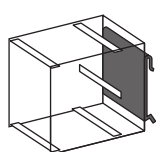
Ripac Compact 3U, 6U - supply includes

| | | | | | | | | | EMC version | | | | | Page | | | |
|----------------------|---------------------------------|--------------------------------|--|-----------|----------|---------------|----------|----|-------------|----------|----|----|----------|------|----------|---|-----|
| Height units U | | | | 3 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 6 | | | | |
| Installation depthHP | | | | 21 | 21 | 42 | 42 | 42 | 21 | 21 | 42 | 42 | 42 | | | | |
| | | | | T1 mm | T2 mm | Packs of | HS | MP | HS | MP | MP | HS | MP | HS | MP | | |
| 2 | Side panels | | | 225 | 200 | x | 3684.512 | | | 3684.530 | | | 3684.512 | | 3684.530 | | |
| | | | | 285 | 260 | x | 3684.514 | | | 3684.532 | | | 3684.514 | | 3684.532 | | |
| | PT | Mounting | | | Packs of | For backplane | | | | | | | | | | | |
| 2 | Side panels | | | see above | x | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 110 |
| | Side panels for cable entry | | | | x | - | - | - | - | - | - | 1 | 1 | 1 | 1 | 1 | - |
| | EMC PG cable gland | | | | x | - | - | - | - | - | - | 1 | 1 | 1 | 1 | 1 | - |
| 3 | Trim sections, rear | | | | x | 4 | 2 | 4 | 2 | 2 | 2 | 4 | 2 | 4 | 2 | 2 | 112 |
| 1 | Flanges with keyhole | | | | x | - | 2 | - | 2 | 2 | - | 2 | - | 2 | 2 | - | - |
| | EMC front/rear panels | | | | x | - | - | - | - | - | - | 1 | - | 1 | 1 | - | - |
| | EMC rear panel for rail adaptor | | | | x | - | - | - | - | - | - | 1 | - | 1 | - | - | - |
| | Rear panel for rail adaptor | | | | x | 1 | - | 1 | - | - | - | - | - | - | - | - | - |
| | Rail adaptor | | | | x | 1 | - | 1 | - | - | - | 1 | - | 1 | - | - | - |
| | EMC gaskets, vertical | | | | x | - | - | - | - | - | - | 2 | 1 | 2 | 1 | 1 | 124 |
| 7 | Covers, vented | | | see below | x | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 137 |
| 4 | A | Horizontal rails, front | | | x | 4 | 2 | 4 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 116 |
| 5 | C1 | Horizontal rails, rear | | | x | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 118 |
| | I | Threaded inserts | | | x | 4 | 2 | 4 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 122 |
| | G | Insulating strips 21 HP | | | x | 2 | 2 | 4 | 4 | 8 | 2 | 2 | 4 | 4 | 4 | 8 | 123 |
| 6 | D1 | Horizontal rails, rear, centre | | | x | - | - | - | - | 1 | - | - | - | - | - | 1 | 120 |

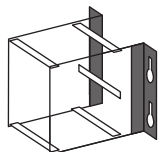
Covers for Ripac Compact

| | | | | LP mm | Packs of | 3 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 6 | Page | |
|---|----------------|-----------------------------------|--|-------|----------|----------|---|---|----------|---|---|------------------------|---|---|------------------------|------|-----|
| 7 | Covers, vented | | | 160 | 1 | 3687.624 | | | 3687.625 | | | 3687.624 ¹⁾ | | | 3687.625 ¹⁾ | | 137 |
| | Covers, vented | | | 220 | 1 | 3687.692 | | | 3687.677 | | | 3687.692 ¹⁾ | | | 3687.677 ¹⁾ | | 137 |
| | F | Z rails IEC 60 603-2 (DIN 41 612) | | | 1 | 3684.599 | | | 3684.600 | | | 3684.599 | | | 3684.600 | | 121 |

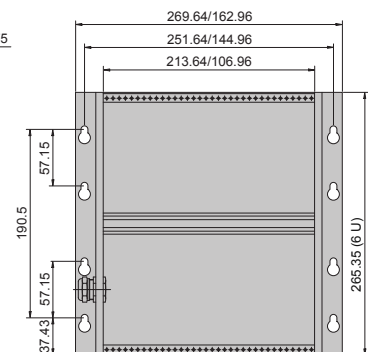
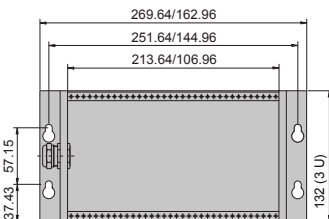
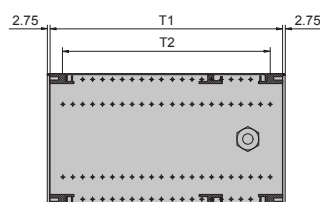
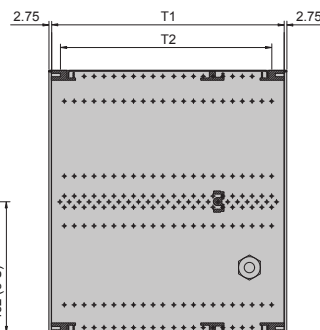
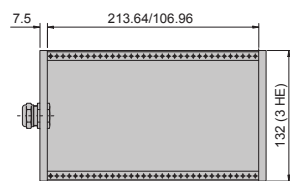
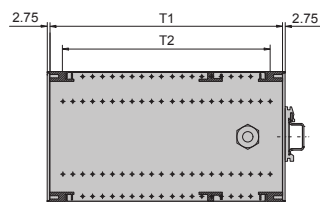
HS = top hat rail MP = mounting plate PT = rail type LP = PCB depth
¹⁾included with the supply



for top hat rail



for mounting plate



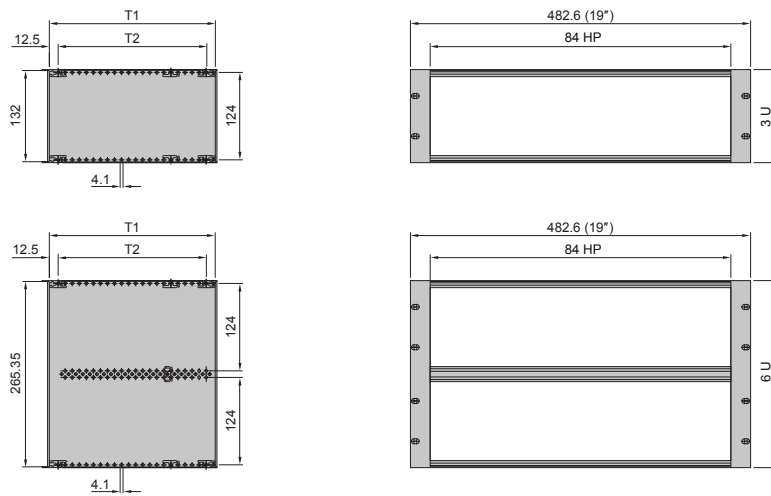
T = Depth
 HE = U

Subracks

Ripac Vario Mobil 5U, 6U - supply includes

| Height units U | | | | 3 | 3 | EMC | | EMC | | Page |
|----------------|--|-----------|-----------|----------|----|----------|----|-----|----------|------|
| | | | | BP | C | BP | BP | C | BP | |
| | T1 mm | T2 mm | Packs of | 3684.513 | | 3684.531 | | | | |
| 2 | Side panels | 245 | 1 | 3684.513 | | 3684.531 | | | | 110 |
| | PT | | Model No. | Packs of | | | | | | |
| 1 | Flanges | - | 1 | 3684.615 | | 3684.617 | | | | 111 |
| 3 | Trim sections, rear | - | 1 | - | - | 2 | - | - | 2 | 112 |
| | | | | | | 3684.634 | | | 3684.636 | |
| 2 | Side panels | see above | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 110 |
| | EMC gaskets, vertical | - | 1 | - | - | 2 | - | - | 2 | 124 |
| | | | | | | 3686.975 | | | 3686.977 | |
| 7 | Covers, vented | 3684.695 | 1 | - | - | 2 | - | - | 2 | 134 |
| 9 | Mounting blocks | 3684.234 | 10 | - | - | 20 | - | - | 20 | 125 |
| | K EMC gaskets for covers | 3684.245 | 10 | - | - | 4 | - | - | 4 | 125 |
| 4 | A Horizontal rails, front | 3684.562 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 116 |
| | I Threaded inserts | 3684.610 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 122 |
| 5 | C1 Horizontal rails, rear | 3684.572 | 1 | 2 | - | 2 | 2 | - | 2 | 118 |
| 6 | D1 Horizontal rails, rear, centre | 3684.582 | 1 | - | - | - | 1 | - | 1 | 120 |
| | G Insulating strips 21 HP | 3684.611 | 1 | 8 | - | 8 | 16 | - | 16 | 123 |
| | C3 Horizontal rails, rear, with integral Z rails | 3686.159 | 1 | - | 2 | - | - | 2 | - | 119 |
| | D2 Horizontal rails, rear, centre, with integral Z rails | 3687.602 | 1 | - | - | - | - | 1 | - | 120 |
| | Assembly screws M4 x 12 | 3684.881 | 1 | 12 | 12 | 12 | 14 | 14 | 14 | - |
| | Assembly screws M3 x 6 | 3684.883 | 1 | - | - | 60 | - | - | 60 | - |

BP = for backplane C = for connector DIN PT = rail type

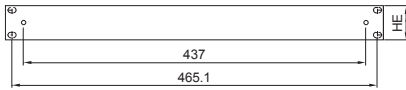


T = Depth

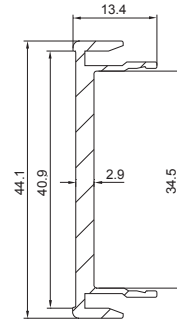
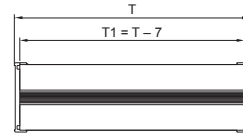
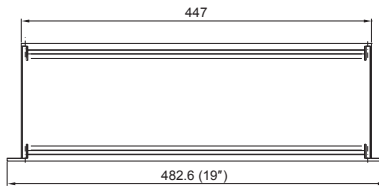
Instrument cases/system enclosures

RiBox system enclosure 1U

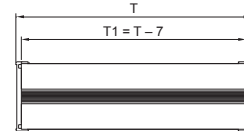
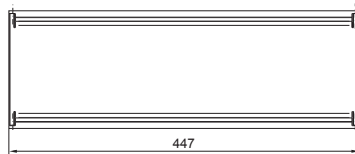
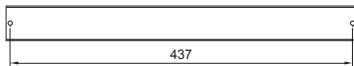
482.6 mm (19") rack mount



HE = U



Instrument case



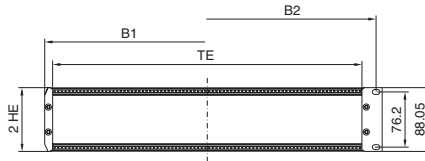
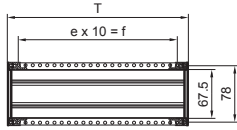
| Instrument case | Model No. RP | | D (T) mm |
|-----------------|---------------------------|---|----------|
| | 482.6 mm (19") rack mount | 482.6 mm (19") rack mount ¹⁾ | |
| 3687.819 | 3687.814 | - | 150 |
| 3687.820 | 3687.815 | - | 200 |
| 3687.821 | 3687.816 | 3684.072 | 250 |
| 3687.822 | 3687.817 | - | 300 |
| 3687.823 | 3687.818 | 3684.073 | 350 |

¹⁾ Including assembly kit for double Euroboards

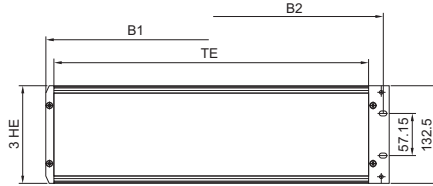
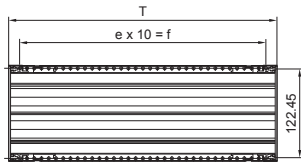
Instrument cases/system enclosures

Ripac Vario-Module

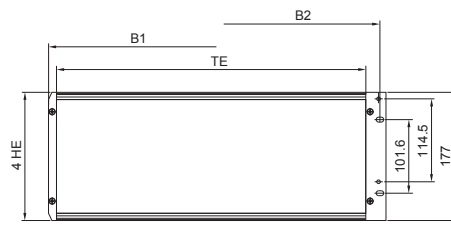
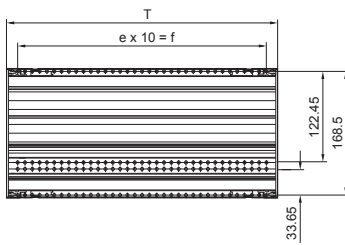
2U



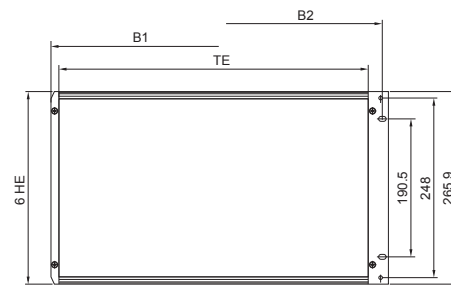
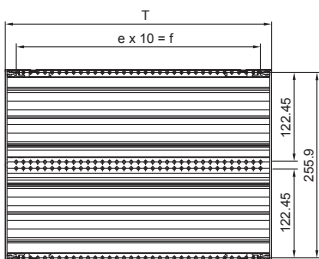
3U



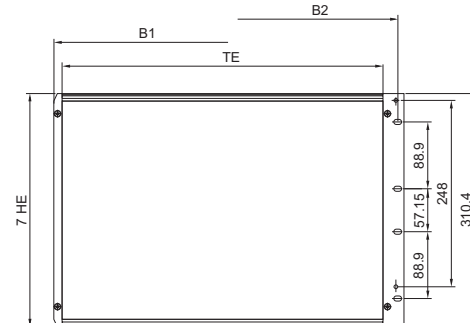
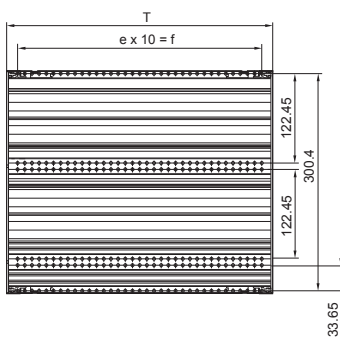
4U



6U



7U



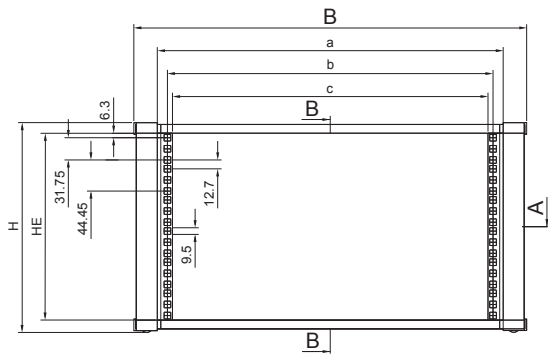
| Model No. VM | U (HE) | HP (TE) | D mm | e | B1 mm | B2 mm |
|--------------|--------|---------|-------|----|-------|-------|
| 3982.000 | 2 | 42 | 250.4 | 22 | 235.6 | 251.6 |
| 3982.020 | 2 | 42 | 310.4 | 28 | 235.6 | 251.6 |
| 3982.290 | 2 | 63 | 250.4 | 22 | 342.3 | 358.3 |
| 3982.300 | 2 | 63 | 310.4 | 28 | 342.3 | 358.3 |
| 3982.010 | 2 | 84 | 250.4 | 22 | 449.0 | 465.1 |
| 3982.030 | 2 | 84 | 310.4 | 28 | 449.0 | 465.1 |
| 3982.040 | 3 | 42 | 250.4 | 22 | 235.6 | 251.6 |
| 3982.070 | 3 | 42 | 310.4 | 28 | 235.6 | 251.6 |
| 3982.050 | 3 | 63 | 250.4 | 22 | 342.3 | 358.3 |
| 3982.080 | 3 | 63 | 310.4 | 28 | 342.3 | 358.3 |
| 3982.060 | 3 | 84 | 250.4 | 22 | 449.0 | 465.1 |
| 3982.090 | 3 | 84 | 310.4 | 28 | 449.0 | 465.1 |
| 3982.100 | 3 | 84 | 370.4 | 34 | 449.0 | 465.1 |
| 3982.110 | 4 | 84 | 250.4 | 22 | 449.0 | 465.1 |
| 3982.120 | 4 | 84 | 310.4 | 28 | 449.0 | 465.1 |
| 3982.130 | 4 | 84 | 370.4 | 34 | 449.0 | 465.1 |
| 3982.140 | 6 | 84 | 310.4 | 28 | 449.0 | 465.1 |
| 3982.150 | 6 | 84 | 370.4 | 34 | 449.0 | 465.1 |
| 3982.160 | 6 | 84 | 430.4 | 40 | 449.0 | 465.1 |
| 3982.170 | 7 | 84 | 310.4 | 28 | 449.0 | 465.1 |
| 3982.190 | 7 | 84 | 430.4 | 40 | 449.0 | 465.1 |

| Model No. VM (EMC) | U (HE) | HP (TE) | D mm | e | B1 mm | B2 mm |
|--------------------|--------|---------|-------|----|-------|-------|
| 3983.000 | 2 | 42 | 250.4 | 22 | 235.6 | 251.6 |
| 3983.020 | 2 | 42 | 310.4 | 28 | 235.6 | 251.6 |
| 3983.290 | 2 | 63 | 250.4 | 22 | 342.3 | 358.3 |
| 3983.300 | 2 | 63 | 310.4 | 28 | 342.3 | 358.3 |
| 3983.010 | 2 | 84 | 250.4 | 22 | 449.0 | 465.1 |
| 3983.030 | 2 | 84 | 310.4 | 28 | 449.0 | 465.1 |
| 3983.040 | 3 | 42 | 250.4 | 22 | 235.6 | 251.6 |
| 3983.070 | 3 | 42 | 310.4 | 28 | 235.6 | 251.6 |
| 3983.050 | 3 | 63 | 250.4 | 22 | 342.3 | 358.3 |
| 3983.080 | 3 | 63 | 310.4 | 28 | 342.3 | 358.3 |
| 3983.060 | 3 | 84 | 250.4 | 22 | 449.0 | 465.1 |
| 3983.090 | 3 | 84 | 310.4 | 28 | 449.0 | 465.1 |
| 3983.100 | 3 | 84 | 370.4 | 34 | 449.0 | 465.1 |
| 3983.110 | 4 | 84 | 250.4 | 22 | 449.0 | 465.1 |
| 3983.120 | 4 | 84 | 310.4 | 28 | 449.0 | 465.1 |
| 3983.130 | 4 | 84 | 370.4 | 34 | 449.0 | 465.1 |
| 3983.140 | 6 | 84 | 310.4 | 28 | 449.0 | 465.1 |
| 3983.150 | 6 | 84 | 370.4 | 34 | 449.0 | 465.1 |
| 3983.160 | 6 | 84 | 430.4 | 40 | 449.0 | 465.1 |
| 3983.170 | 7 | 84 | 310.4 | 28 | 449.0 | 465.1 |
| 3983.190 | 7 | 84 | 430.4 | 40 | 449.0 | 465.1 |

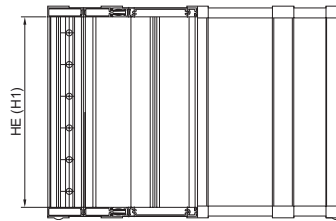
B = Width
T = Depth

Subracks

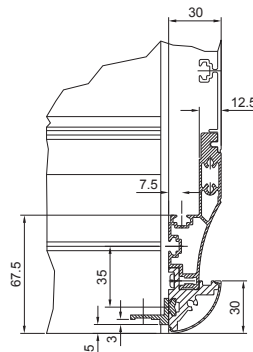
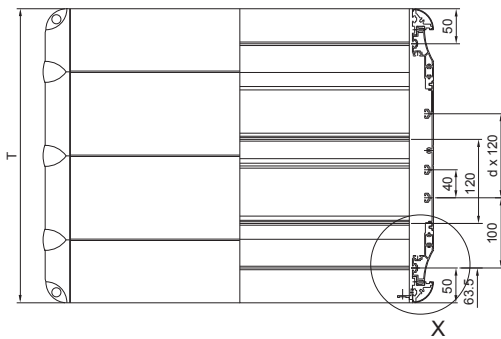
RiCase 269.2 mm (1/2 19")
RiCase 482.6 mm (19")



Section B – B



Detail X



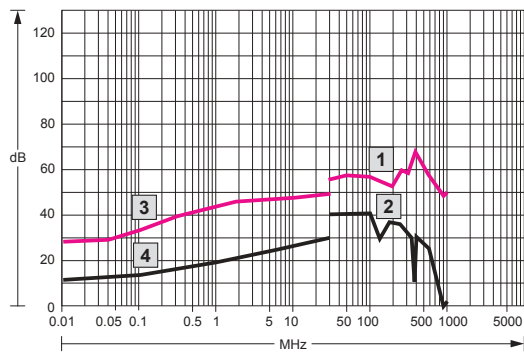
RiCase 269.2 mm (1/2 19")

| not vented | | | | | | | | | |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Model No. RC, RAL 5018 | 3750.100 | – | 3750.200 | – | 3750.210 | 3750.300 | – | 3750.400 | – |
| Model No. RC, RAL 5012 | 3750.102 | – | 3750.202 | – | 3750.212 | 3750.302 | – | 3750.402 | – |
| Model No. RC, RAL 7030 | 3750.104 | – | 3750.204 | – | 3750.214 | 3750.304 | – | 3750.404 | – |
| vented | | | | | | | | | |
| Model No. RC, RAL 5018 | – | 3750.110 | – | 3750.220 | – | 3750.350 | 3750.360 | – | 3750.450 |
| Model No. RC, RAL 5012 | – | 3750.112 | – | 3750.222 | – | 3750.352 | 3750.362 | – | 3750.452 |
| Model No. RC, RAL 7030 | – | 3750.114 | – | 3750.224 | – | 3750.354 | 3750.364 | – | 3750.454 |
| U | 1 | | 2 | | 3 | | | 4 | |
| Width (B) mm | 348.6 | 348.6 | 348.6 | 348.6 | 348.6 | 348.6 | 348.6 | 348.6 | 348.6 |
| Height (H) mm | 77.5 | 77.5 | 121.9 | 121.9 | 166.4 | 166.4 | 166.4 | 210.8 | 210.8 |
| H1 (U) mm | 45.0 | 45.0 | 89.4 | 89.4 | 133.8 | 133.8 | 133.8 | 178.3 | 178.3 |
| Depth (T) mm | 300.0 | 420.0 | 300.0 | 540.0 | 300.0 | 420.0 | 540.0 | 420.0 | 540.0 |
| a | 280.6 | 280.6 | 280.6 | 280.6 | 280.6 | 280.6 | 280.6 | 280.6 | 280.6 |
| b | 251.6 | 251.6 | 251.6 | 251.6 | 251.6 | 251.6 | 251.6 | 251.6 | 251.6 |
| c | 237.2 | 237.2 | 237.2 | 237.2 | 237.2 | 237.2 | 237.2 | 237.2 | 237.2 |
| d | – | 1 | – | 2 | – | 1 | 2 | 1 | 2 |

RiCase 482.6 mm (19")

| not vented | | | | | | | | | | | | | |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----|
| Model No. RC, RAL 5018 | 3750.310 | 3750.320 | 3750.410 | 3750.420 | 3750.600 | 3750.610 | 3750.620 | 3750.700 | 3750.710 | 3750.900 | 3750.910 | 3750.000 | |
| Model No. RC, RAL 5012 | 3750.312 | 3750.322 | 3750.412 | 3750.422 | 3750.602 | 3750.612 | 3750.622 | 3750.702 | 3750.712 | 3750.902 | 3750.912 | 3750.002 | |
| Model No. RC, RAL 7030 | 3750.314 | 3750.324 | 3750.414 | 3750.424 | 3750.604 | 3750.614 | 3750.624 | 3750.704 | 3750.714 | 3750.904 | 3750.914 | 3750.004 | |
| vented | | | | | | | | | | | | | |
| Model No. RC, RAL 5018 | 3750.330 | 3750.340 | 3750.430 | 3750.440 | 3750.630 | 3750.640 | 3750.650 | 3750.720 | 3750.730 | 3750.920 | 3750.930 | 3750.030 | |
| Model No. RC, RAL 5012 | 3750.332 | 3750.342 | 3750.432 | 3750.442 | 3750.632 | 3750.642 | 3750.652 | 3750.722 | 3750.732 | 3750.922 | 3750.932 | 3750.032 | |
| Model No. RC, RAL 7030 | 3750.334 | 3750.344 | 3750.434 | 3750.444 | 3750.634 | 3750.644 | 3750.654 | 3750.724 | 3750.734 | 3750.924 | 3750.934 | 3750.034 | |
| U | 3 | | 4 | | 6 | | | 7 | | 9 | | | 12 |
| Width (B) mm | 562.0 | 562.0 | 562.0 | 562.0 | 562.0 | 562.0 | 562.0 | 562.0 | 562.0 | 562.0 | 562.0 | 562.0 | |
| Height (H) mm | 166.4 | 166.4 | 210.8 | 210.8 | 299.7 | 299.7 | 299.7 | 344.2 | 344.2 | 433.1 | 433.1 | 566.5 | |
| H1 (U) mm | 133.8 | 133.8 | 178.3 | 178.3 | 267.2 | 267.2 | 267.2 | 311.7 | 311.7 | 400.6 | 400.6 | 534.0 | |
| Depth (T) mm | 300.0 | 420.0 | 300.0 | 420.0 | 300.0 | 420.0 | 540.0 | 420.0 | 540.0 | 420.0 | 540.0 | 540.0 | |
| a | 494.0 | 494.0 | 494.0 | 494.0 | 494.0 | 494.0 | 494.0 | 494.0 | 494.0 | 494.0 | 494.0 | 494.0 | |
| b | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | |
| c | 450.6 | 450.6 | 450.6 | 450.6 | 450.6 | 450.6 | 450.6 | 450.6 | 450.6 | 450.6 | 450.6 | 450.6 | |
| d | – | 1 | – | 1 | – | 1 | 2 | 1 | 2 | 1 | 2 | 2 | |

EMC diagram for Ripac Vario EMC



MHz = frequency
dB = RF attenuation

- 1 E field = electrical field [V/m] EMC enclosures
- 2 E field standard enclosures
- 3 H field = magnetic field [A/m] EMC enclosures
- 4 H field standard enclosures

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