# Pixus Technologies

## Subrack Systems

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### Subracks

<table>
<thead>
<tr>
<th>Subracks</th>
<th>Design</th>
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<tbody>
<tr>
<td>Ripac Easy</td>
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<tr>
<td>Ripac Vario</td>
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<tr>
<td>Ripac Vario Mobil</td>
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### Subracks, individual components

<table>
<thead>
<tr>
<th>Subracks, individual components</th>
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<tbody>
<tr>
<td>Table of horizontal rails</td>
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<tr>
<td>Side panels and flanges</td>
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<td>Horizontal rails</td>
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### Subrack accessories

<table>
<thead>
<tr>
<th>Subrack accessories</th>
<th>Page</th>
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<tbody>
<tr>
<td>Components for EMC installation</td>
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<tr>
<td>Mounting kits.</td>
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<td>Guide rails.</td>
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<tr>
<td>Keying/PCB ejectors.</td>
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<tr>
<td>Covers.</td>
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<td>Subrack climate control</td>
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<td>Front panels, handles</td>
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<tr>
<td>Ripac box type plug-in units</td>
<td></td>
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<tr>
<td>Assembly parts</td>
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</table>
## Ripac EASY

For standard applications or demanding mechanical requirements

### Model No.

### Applications

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

### Design features

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

### User benefits

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

## Ripac Vario

For standard applications or complex configurations

### Model No.

### Applications

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

### Design features

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

### User benefits

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

## Ripac Vario EMC

For EMC applications and complex configurations

### Model No.

### Applications

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

### Design features

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

### User benefits

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

### Ripac Compact
- **Applications**
  - Subrack system for direct mounting in the enclosure. May optionally be mounted on a top hat rail or mounting plate. Suitable for the installation of standardised PCBs or board type plug-in units.
- **Design features**
  - Rack-mount system to IEC 60 297-3
  - Prepared for mounting on top hat rails or directly on the mounting plate
  - 3 and 6U
  - For board formats up to 160 mm deep
  - Installation width: 21 and 42 HP
  - Side panels of aluminium, clear-chromated
  - Installation of backplanes/midplanes
- **User benefits**
  - Direct mounting on mounting plates or rails
  - Variable cable entry from below or above
  - Side panels with 10 mm pitch pattern of holes for variable system installation
  - For backplane mounting
  - EMC version optional

### Ripac Vario Mobil
- **Applications**
  - Subrack system for use in rail vehicles. Suitable for the installation of standardised PCBs or board type plug-in units.
- **Design features**
  - 482.6 mm (19") rack-mount system to IEC 60 297-3
  - Tested to EN 50 155, 1996 (electronic equipment for rail vehicles)
  - 3 and 6U
  - For board formats up to 220 mm deep
  - Side panels of aluminium, clear-chromated
  - Installation of backplanes/midplanes or connectors
  - Fully assembled
- **User benefits**
  - Suitable for use in rail vehicles
  - EMC versions available
  - Side panels with 10 mm pitch pattern of holes for variable system installation
  - Fully assembled
  - For backplane or connector mounting
Subracks

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

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

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

The subracks are shock and vibration-tested and comply with IEC 60 297-3-101, -102, -103.
Ripac Vario/Vario EMC
Complex applications thanks to numerous size variants and system accessories.

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

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

Ripac Compact
Subracks for mounting on mounting plates or top hat rails.

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

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

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

The modular concept of Ripac subracks facilitates a wide range of application options with a minimum of components. All Ripac subracks are based on the same horizontal rails and system components.

The difference lies in the design of the side panels and installation options. The subracks are shock and vibration-tested and comply with IEC 60 297-3-101, -102, -103.
Material/Surface finish:
Side panels:
2 mm aluminium, corrosion-resistant
Horizontal rails:
Extruded aluminium section, corrosion-resistant
Flanges: Pre-anodised

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

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

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

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

Custom configuration available upon request.

<table>
<thead>
<tr>
<th>Model No. RP</th>
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<tbody>
<tr>
<td><strong>U (H1)</strong></td>
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Accessories
Covers 171
Horizontal rails 146
Guide rails 165
Material/Surface finish:
Side panels:
2.5 mm aluminium, clear-chromated
482.6 mm (19") flanges and horizontal rails:
Extruded aluminium section, clear-chromated

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

Detailed parts lists, see page 272.

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

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

Custom configuration available upon request.

<table>
<thead>
<tr>
<th>Model No. RP</th>
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<tr>
<td><strong>U</strong></td>
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Ripac Vario 4U, 7U

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

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

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

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

EMC upgradable

Custom configuration available upon request.
Material/Surface finish:
Side panels: 2.5 mm aluminium, clear-chromated
Flanges and horizontal rails: Extruded aluminium section, clear-chromated
Covers: Aluminium, unplated

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

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

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

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<th>Side panel (T1) mm</th>
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<th>For connector IEC 60 603-2</th>
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Accessories
- Covers: Page 171
- Horizontal rails: Page 146
- Guide rails: Page 165
Ripac Vario EMC 3U, 6U, 9U

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

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

Detailed parts lists,
see page 272.

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

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

Custom configuration available upon request.

<table>
<thead>
<tr>
<th>Model No. RP</th>
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<tr>
<td>U</td>
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<tr>
<td>Height(H1) mm</td>
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<td>B1 mm</td>
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</table>
Material/Surface finish:
Side panels:
2.5 mm aluminium, clear-chromated
Flanges and horizontal rails:
Extruded aluminium section, clear-chromated

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

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

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

Custom configuration available upon request.

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<th>Side panel (T1) mm</th>
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For backplane

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<td>265.35</td>
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Ripac Compact 3 U for top-hat rail
Ripac Compact 3 U for mounting plate

B = Width
H = Height
T = Depth
Ripac VarioMobil 3U, 6U

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

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

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

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

Note:
The subracks are supplied fully assembled.

Custom configuration available upon request.

<table>
<thead>
<tr>
<th>Height (H1) mm</th>
<th>Side panel (T1) mm</th>
<th>T2 mm</th>
<th>Max. PCB depth mm</th>
<th>For backplane</th>
<th>For connector IEC 60 603-2</th>
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