

*Schroff*

# EUROPACPRO

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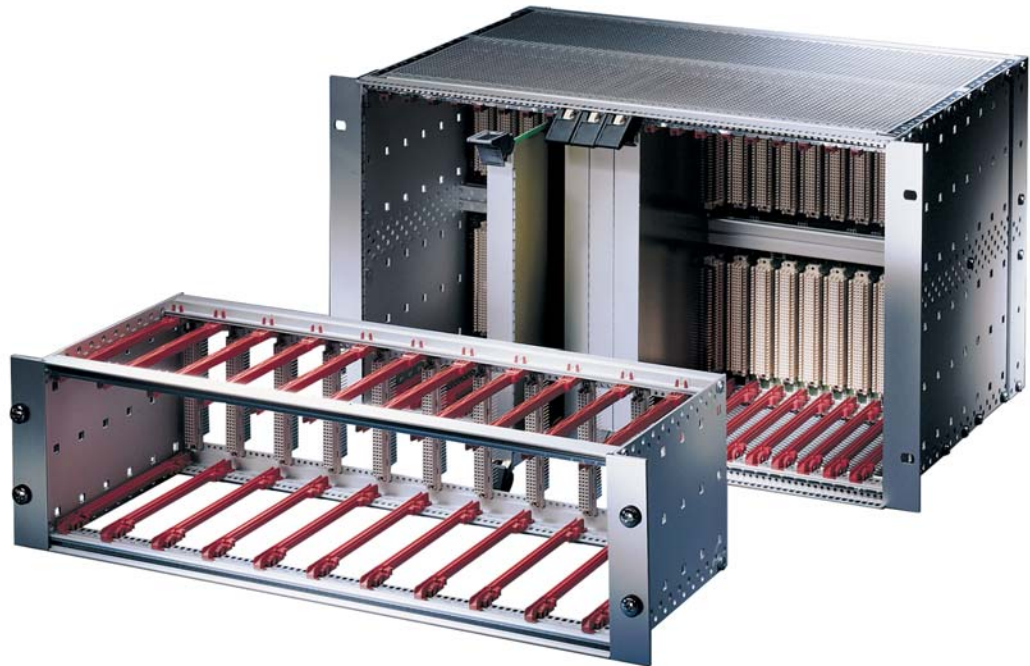
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06197001



06112014

Different horizontal rails for various applications



04602002

The IEEE handles and shielded front panels are designed for the construction of CompactPCI and VME64x subrack systems



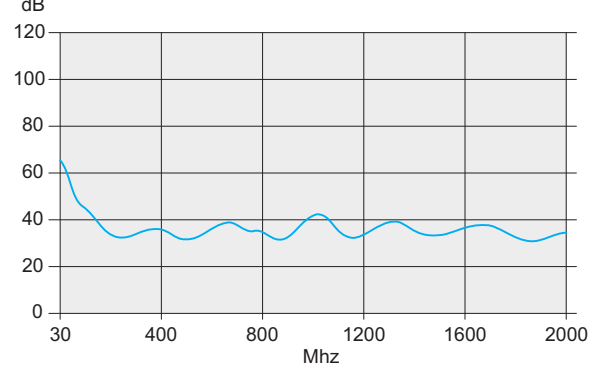
06

Sequential numbering on horizontal rails (> 28 HP) and markings on the guide rails provide quick optical positioning aids. ESD clips can be used at front or rear, to protect electronics from electrostatic discharge

Standards/certifications

- Inner and outer dimensions meet: IEC 60297-3-100, -101, -102, -103, -104, -105  
IEEE 1101.1 and IEEE 1101.10/11
- Type of protection IP 20 to IEC 60529
- EMC testing to IEC 61587-3
- Shock and vibration test reports: German "Bahn" standards BN 411002, BN 411003; NF F 60002, NF F 67012  
IEC 61587-2, EN 50155
- Nuclear plants KTA 1401

EMC curve



06108081

# Subracks - europacPRO

Overview . . . . . 6.6

## 19" subracks

- Kits or individual configuration
- One product and accessories platform for every kind of customer requirement and application
- Suitable for CompactPCI and VME64x insertion and extractor handles
- EMC shielding can easily be retrofitted if needed
- Shock and vibration resistant up to 5 g
- 3D PDF or CAD 3D data available for download

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**Kits**  
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 CompactPCI . . . . . 6.16

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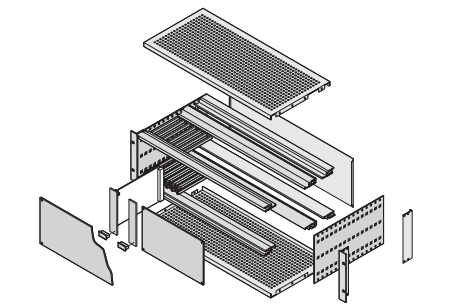
europacPRO for rugged applications . . . . . 6.92



06102008

### Kits

- All required parts available under one order number, some pre-fitted
- Most popular dimensions and versions available from stock
- For installed loads up to 7.5 kg, up to 11 kg and up to 15 kg
- As unshielded or shielded version
- Supplied as space-saving flat-pack



06105058

### ServicePLUS individual configuration

- Single parts may individually be configured, respectively assembled on request (from quantity 1)
- Very wide range of variants in height, width and depth
- Guide rails for different applications
- EMC shielding material to improve EMC performance
- Interior assembly options with mounting plate or combined mounting (3 + 6 U segments)
- Other accessories and assembly kits

### ServicePLUS from page 6.16

- e.g. individual configuration and assembly
- e.g. modification (cut-outs)
- e.g. downloads (CAD drawings, user manuals, test reports)
- e.g. custom solutions

[www.schroff.biz/ServicePLUS](http://www.schroff.biz/ServicePLUS)



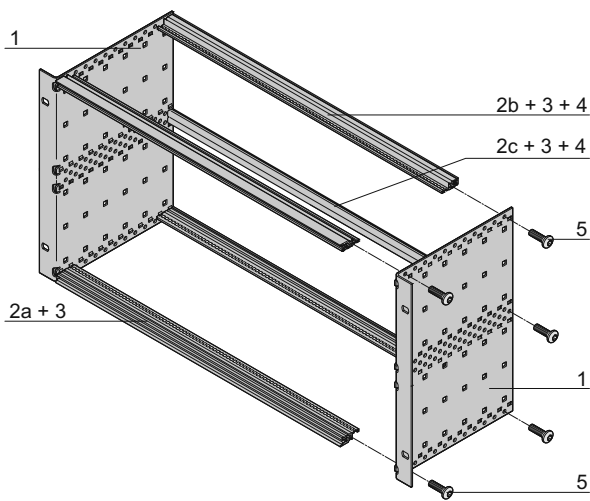
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## Subracks - *europac* PRO

Kit, "light", unshielded,  
for backplane mounting

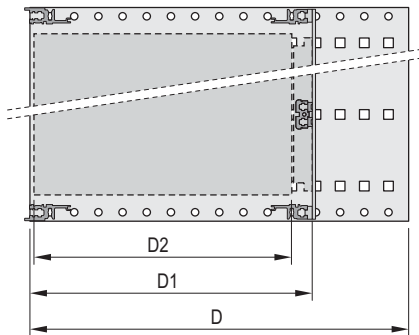


0611002



6 U

0611056



D = overall depth, D1 = insertion depth,  
D2 = board depth = D1 - 15 mm

06108051



04400001

Rear horizontal rail for backplane mounting with insulation strip

- Subrack with side panel type L ("light") with firmly fixed 19" brackets
- Rear horizontal rails for backplane mounting with insulation strip
- Installed load up to 7.5 kg
- Cost-optimised

**NEW**

Delivery comprises (Kit)

Item	Qty	Description	
3 U		6 U	
1	2	2	Side panel type L, Al, 2 mm, passivated, with built-in 19" support bracket
2a	2	2	Front horizontal rail (L-KD)
2b	2	2	Rear horizontal rail (L-ST)
2c	-	1	Rear horizontal rail centre (ST)
3	4	6	Threaded insert, front and rear (pre-fitted)
4	2	4	Insulation strip (pre-fitted)
5	1	1	Fixing material kit, user manual

Order Information

Height	Width	Depth D	Depth D1	Part no.
U	HP	mm	mm	
3	84	175	175	24564-131
3	84	235	175/235	24564-132
3	84	295	175/235/295	24564-133
6	84	175	175	24564-431
6	84	235	175/235	24564-432
6	84	295	175/235/295	24564-433

Accessories

19" assembly kit (screw, washer, nut) (8 × screws, 8 × plastic washers, 8 × cage nuts)	21100-435
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Guide rails (standard), ESD clips

Depth D2	Qty/PU	Part no.
mm	piece	
160	10	24560-351
220	10	24560-353
280	10	24560-379

ESD clips for guide rails PU 50 pieces 24560-255

Cover plates for insertion in horizontal rails (type L)

Depth D2	Width	Qty/PU	Part no.
mm	HP	piece	
160	84	2	24561-051
220	84	2	24561-052

Note

- Subrack is not prepared for shielding
- ServicePLUS configuration from page 6.16



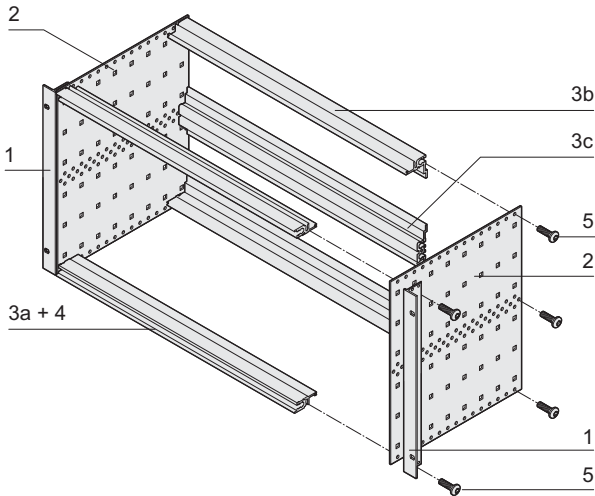
ServicePLUS see page 6.16

# Subracks - *europac* PRO

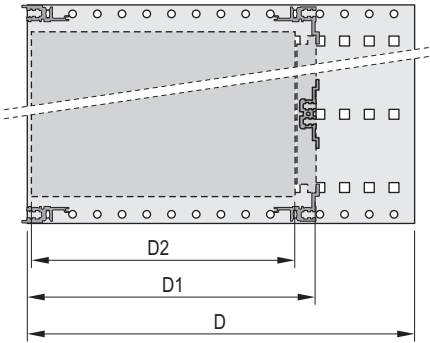
Kit, "flexible", unshielded, for connector mounting



Photo: 3 U subrack



6 U



D = overall depth, D1 = insertion depth, D2 = board depth = D1 - 15 mm



Horizontal rail to rear for connector mounting

- Subrack with side panel type F ("flexible"), 19" bracket is depth-adjustable
- Rear horizontal rails for connector mounting (IEC 60603-2 / DIN 41612)
- Installed load up to 11 kg

**Delivery comprises (kit)**

Item	Qty		Description
	3 U	6 U	
1	2	2	19" support bracket, Al extrusion, for EMC gasket (St, stainless)
2	2	2	Side panel type F, Al, 2 mm
3a	2	2	Front horizontal rail (L-KD)
3b	2	2	Rear horizontal rail (L-MZ) for connector mounting
3c	-	1	Centre horizontal rail (MZ)
4	2	2	Threaded insert to front (pre-fitted)
5	1	1	Fixing material kit, user manual

**Order Information**

Height U	Width HP	Depth D mm	Depth D1 mm	Part no.
3	84	175	175	<b>24563-191</b>
3	84	235	175/235	<b>24563-192</b>
3	84	295	175/235/295	<b>24563-193</b>
3	84	355	175/235/295/355	<b>24563-194</b>
6	84	175	175	<b>24563-491</b>
6	84	235	175/235	<b>24563-492</b>
6	84	295	175/235/295	<b>24563-493</b>
6	84	355	175/235/295/340	<b>24563-494</b>

**Accessories**

**19" assembly kit (screw, washer, nut) ( 8 x screws, 8 x plastic washers, 8 x cage nuts)** **21100-435**

**Guide rails (standard), ESD clips**

Depth D2 mm	Qty/PU piece	Part no.
160	10	<b>24560-351</b>
220	10	<b>24560-353</b>
280	10	<b>24560-379</b>
340	10	<b>24560-380</b>

**ESD clip for guide rails PU 50 pieces** **24560-255**

**Cover plates for insertion in horizontal rails (type L)**

Depth D2 mm	Width HP	Qty/PU piece	Part no.
160	84	2	<b>24561-051</b>
220	84	2	<b>24561-052</b>

**Note**

- ServicePLUS configuration from page 6.16



ServicePLUS see page 6.16

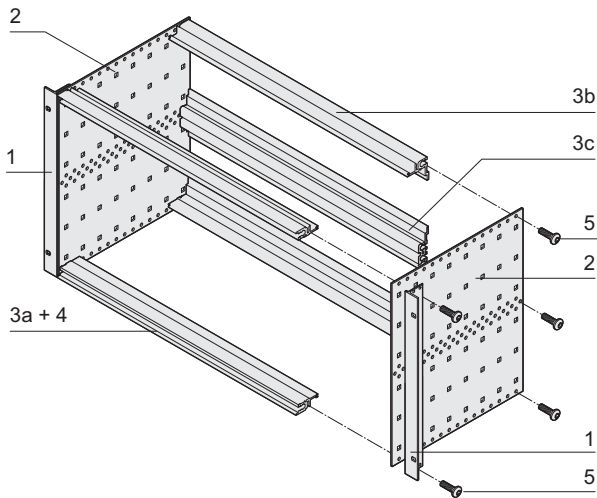
## Subracks - *europac* PRO

### Subrack kit, unshielded for connector, assembly on slide rail



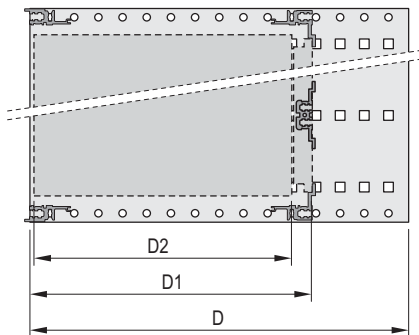
06105001

Photo: 3 U subrack



06105054

6 U



06108050

D=overall depth, D1=insertion depth,  
D2=board depth = D1 - 15 mm



04400003

Rear horizontal rail for connector mounting

- Subrack can be used with slide rails
- Subrack with side panel type F ("flexible"), 19" bracket is depth-adjustable
- Horizontal rails, rear, for connector mounting (IEC 60603-2 / DIN 41612)
- Installed load up to 11 kg

#### Delivery includes (Kit, flat pack)

Item	Qty		Description
	3 U	6 U	
1	2	2	19" support bracket, Al extrusion, for EMC sealing (St, stainless)
2	2	2	Side panel type F, Al, 2 mm
3a	2	2	Front horizontal rail (L-KD)
3b	2	2	Rear horizontal rail (L-MZ) for connector mounting
3c	-	1	Center horizontal rail (MZ)
4	2	2	Threaded insert to front (pre-fitted)
5	1	1	Fixing materials kit, user manual

#### Order Information

Height	Width	Depth D	Depth D1	Part no.
U	HP	mm	mm	
3	84	235	175/235	24553-192
3	84	295	175/235/295	24553-193
3	84	355	175/235/295/355	24553-194
6	84	235	175/235	24553-492
6	84	295	175/235/295	24553-493
6	84	355	175/235/295/355	24553-494

#### Accessories

19" fixing material kit (screw, washer, nut) (8 × screws, 8 × plastic washers, 8 × cage nuts)	21100-435
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#### Guide rails (standard), ESD clips

Depth D2	Qty/PU	Part no.
mm	piece	
160	10	24560-351
220	10	24560-353
280	10	24560-379

ESD clip for guide rails Spring steel, tin-plated, silver, PU 50 pieces	24560-255
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#### Cover plates for insertion into horizontal rail type L

Depth D2	Width	Qty/PU	Part no.
mm	HP	piece	
160	84	2	24561-051
220	84	2	24561-052

#### Note

- Alternative product for older europac lab and europacRational subrack series
- ServicePLUS configuration from page 6.18

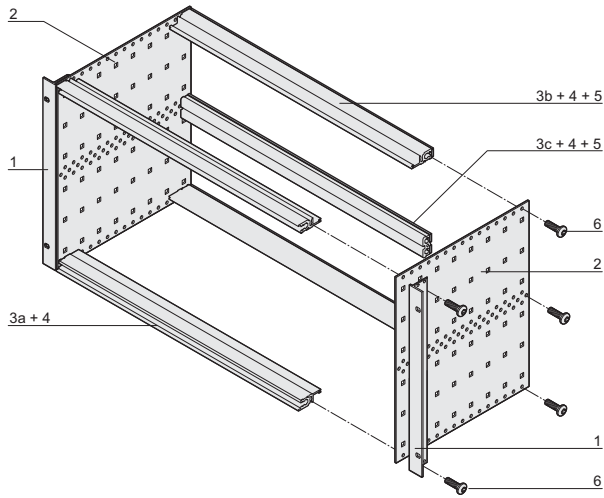
# Subracks - europac PRO Kits

**Subrack kit, unshielded, flexible for backplane, assembly on slide rail**



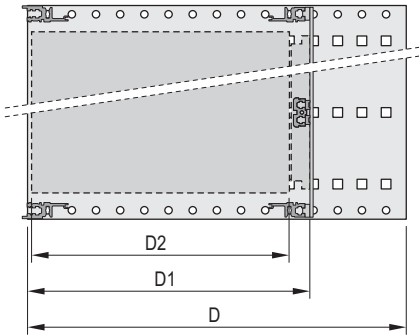
Photo: 3 U subrack

6 U



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D=overall depth, D1=insertion depth, D2=board depth = D1 - 15 mm



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Rear horizontal rail for backplane mounting with insulation strip

04400001

- Subrack can be used with slide rails
- Subrack with side panel type F ("flexible"), 19" bracket is depth-adjustable
- Rear horizontal rails for backplane mounting with insulation strip
- Installed load up to 11 kg

**Delivery includes** (Kit, flat pack)

Item	Qty	Description
		3 U 6 U
1	2 2	19" support bracket, Al extrusion, for EMC sealing (St, stainless)
2	2 2	Side panel type F, Al, 2 mm
3a	2 2	Front horizontal rail (L-KD)
3b	2 2	Rear horizontal rail (L-ST) for backplane mounting
3c	- 1	Rear center horizontal rail (ST)
4	4 6	Threaded inserts, front and rear (pre-fitted)
5	2 4	Insulation strip (pre-fitted)
6	1 1	Fixing materials kit, user manual

**Order Information**

Height U	Width HP	Depth D mm	Depth D1 mm	Part no.
3	84	235	175/235	24553-132
3	84	295	175/235/295	24553-133
3	84	355	175/235/295/355	24553-134
6	84	235	175/235	24553-432
6	84	295	175/235/295	24553-433
6	84	355	175/235/295/355	24553-434

**Accessories**

<b>19" fixing material kit (screw, washer, nut)</b> (8 x screws, 8 x plastic washers, 8 x cage nuts)	<b>21100-435</b>
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**Guide rails (standard), ESD clips**

Depth D2 mm	Qty/PU piece	Part no.
160	10	<b>24560-351</b>
220	10	<b>24560-353</b>
280	10	<b>24560-379</b>
340	10	<b>24560-380</b>

<b>ESD clip for guide rails</b> Spring steel, tin-plated, silver, PU 50 pieces	<b>24560-255</b>
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**Cover plates for insertion into horizontal rail type L**

Depth D2 mm	Width HP	Qty/PU piece	Part no.
160	84	2	<b>24561-051</b>
220	84	2	<b>24561-052</b>

**Note**

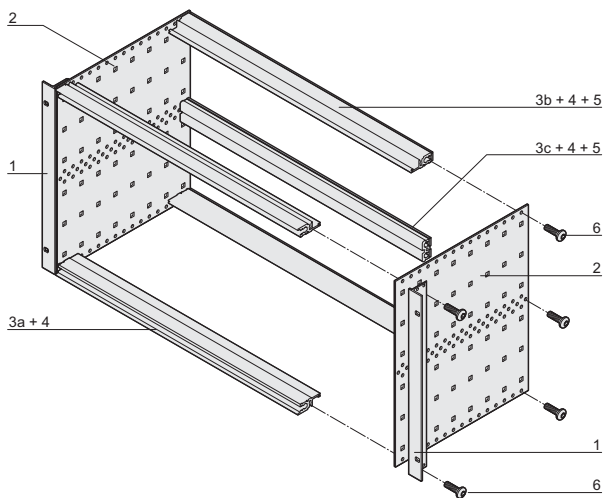
- Alternative product for older europac lab and europacRational subrack series
- ServicePLUS configuration from page 6.18

## Subracks - *europac* PRO Kits

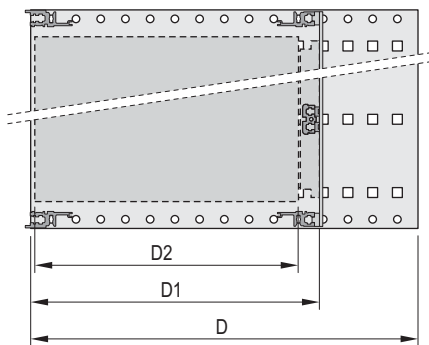
Kit, "flexible", unshielded,  
for backplane mounting



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D = overall depth, D1 = insertion depth,  
D2 = board depth = D1 - 15 mm



04400001

Rear horizontal rail for backplane mounting with insulation strip

- Subrack with side panel type F ("flexible"), 19" bracket is depth-adjustable
- Rear horizontal rail for backplane mounting with insulation strip
- Installed load up to 11 kg

### Delivery comprises (kit)

Item	Qty		Description
	3 U	6 U	
1	2	2	19" support bracket, Al extrusion, for EMC stainless steel gasket
2	2	2	Side panel type F, Al, 2 mm
3a	2	2	Front horizontal rail (L-KD)
3b	2	2	Rear horizontal rail (L-ST) for backplane mounting
3c	-	1	Rear horizontal rail centre (ST)
4	4	6	Threaded insert, front and rear (pre-fitted)
5	2	4	Insulation strip (pre-fitted)
6	1	1	Fixing material kit, user manual

### Order Information

Height U	Width HP	Depth D mm	Depth D1 mm	Part no.
3	84	175	175	24563-131
3	84	235	175/235	24563-132
3	84	295	175/235/295	24563-133
3	84	355	175/235/295/355	24563-134
3	84	415	175/235/295/355	24563-135
3	84	475	175/235/295/355	24563-136
6	84	175	175	24563-431
6	84	235	175/235	24563-432
6	84	295	175/235/295	24563-433
6	84	355	175/235/295/355	24563-434
6	84	415	175/235/295/355	24563-435
6	84	475	175/235/295/355	24563-436

### Accessories

19" assembly kit (screw, washer, nut) (8 × screws, 8 × plastic washers, 8 × cage nuts)	21100-435
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### Guide rails (standard), ESD clips

Depth D2 mm	Qty/PU piece	Part no.
160	10	24560-351
220	10	24560-353
280	10	24560-379
340	10	24560-380

ESD clip for guide rails PU 50 pieces	24560-255
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### Cover plates for insertion in horizontal rails (type L)

Depth D2 mm	Width HP	Qty/PU piece	Part no.
160	84	2	24561-051
220	84	2	24561-052

### Note

- ServicePLUS configuration from page 6.16

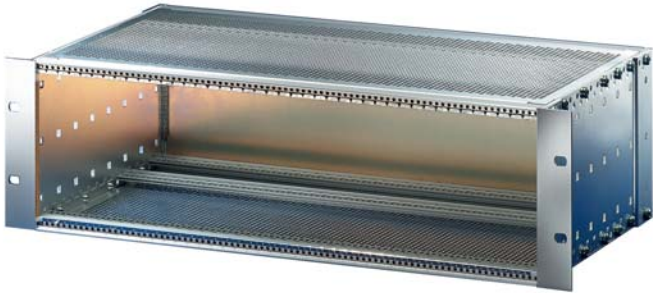


ServicePLUS see page 6.16



# Subracks - *europac* PRO Kits

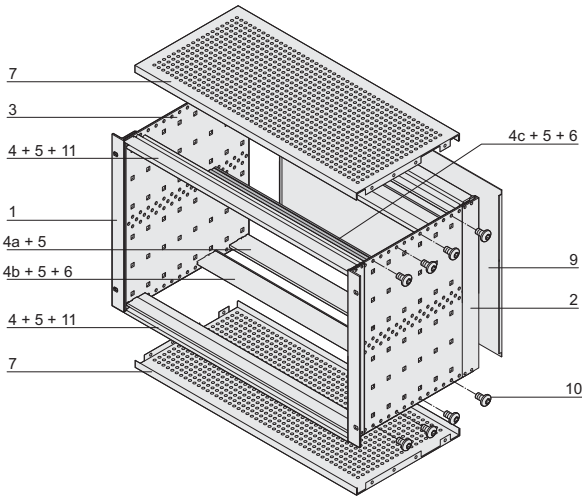
## Kit, "flexible", shielded, for backplane mounting



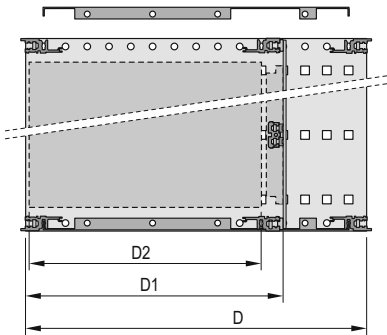
- Subrack with side panel type F ("flexible"), 19" bracket is depth-adjustable
- Rear horizontal rail for backplane mounting with insulation strip
- Shielding typically 40 dB at 1 GHz, 30 dB at 2 GHz, assuming that the front is closed with shielded front panels
- Installed load up to 11 kg

### Delivery comprises ((kit))

Item	Qty		Description
	3 U	6 U	
1	2	2	19" support bracket for <b>EMC textile gasket</b>
2	2	2	Rear corner profile for <b>EMC textile gasket</b>
3	2	2	Side panel type F
4	2	2	Front horizontal rail (L-KD)
4 a	2	2	Rear horizontal rail (L-KD)
4 b	2	2	Rear horizontal rail (L-ST) for backplane mounting with insulation strip
4 c	-	1	Centre horizontal rail (ST)
5	6	8	Threaded insert (pre-fitted)
6	2	4	Insulation strip, fixed
7	2	2	EMC cover plate
8	1	1	EMC gasketing material (pre-fitted)
9	1	1	Rear panel
10	1	1	Fixing material kit
11	2	2	Perforated strip (pre-fitted)
12	1	1	User manual



6 U



D = overall depth, D1 = insertion depth, D2 = board depth = D1 - 15 mm



Rear horizontal rail for backplane mounting with insulation strip

### Order Information

Height U	Width HP	Depth D mm	Depth D1 mm	Part no.
3	84	235	175/235	<b>24563-142</b>
3	84	295	175/235/295	<b>24563-143</b>
3	84	355	175/235/295	<b>24563-144</b>
3	84	415	175/235/295	<b>24563-145</b>
3	84	475	175/235/295	<b>24563-146</b>
6	84	235	175/235	<b>24563-442</b>
6	84	295	175/235/295	<b>24563-443</b>
6	84	355	175/235/295	<b>24563-444</b>
6	84	415	175/235/295	<b>24563-445</b>
6	84	475	175/235/295	<b>24563-446</b>

### Accessories

<b>19" assembly kit (screw, washer, nut) (</b> 8 x screws, 8 x plastic washers, 8 x cage nuts)	<b>21100-435</b>
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### Guide rails (standard), ESD clips

Depth D2 mm	Qty/PU piece	Part no.
160	10	<b>24560-351</b>
220	10	<b>24560-353</b>
280	10	<b>24560-379</b>
340	10	<b>24560-380</b>
<b>ESD clip for guide rails PU 50 pieces</b>		<b>24560-255</b>

### Note

- ServicePLUS configuration from page 6.16



ServicePLUS see page 6.16

## Subracks - *europac* PRO Kits

Kit, 'heavy', unshielded,  
for backplane mounting

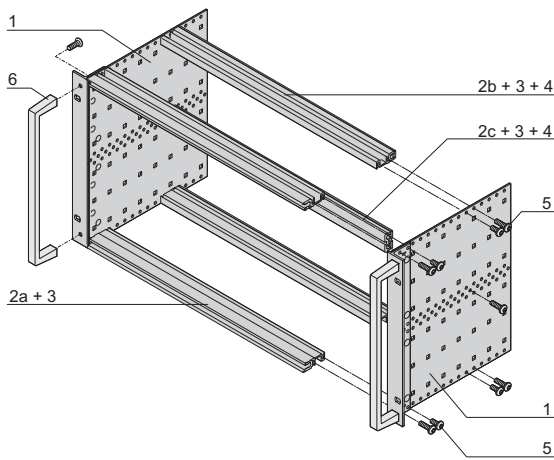


Without front handle

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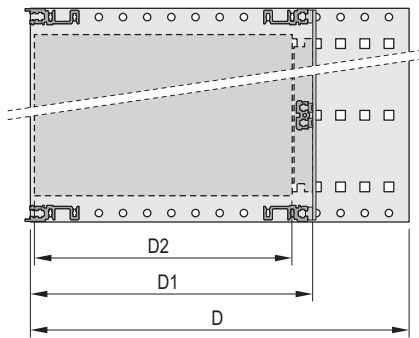
With front handle

06111003



6 U

06111057



06108052

D = overall depth, D1 = insertion depth, D2 = board depth



04400001

Rear horizontal rail for backplane mounting with insulation strip

- Subrack with side panel type H ("heavy"), 19" bracket is firmly fixed to side panel (tox-cold welded)
- Rear horizontal rail for backplane mounting with insulation strip
- Shock and vibration resistance up to 5 g
- Installed load up to 15 kg
- Versions with/without front handles

**NEW**

### Delivery comprises (Kit)

Item	Qty		Description
	3 U	6 U	
1	2	2	Side panel type H, Al, 2 mm, passivated, with 19" support bracket (tox-cold welded) for textile EMC gasket
2a	2	2	Front horizontal rail (H-KD)
2b	2	2	Rear horizontal rail (H-ST)
2c	-	1	Rear horizontal rail centre (H-ST)
3	4	6	Threaded insert, front and rear (pre-fitted)
4	2	4	Insulation strip (pre-fitted)
5	1	1	Fixing material kit, user manual
6	2	2	Front handle (on version with front handle only)

### Order Information

Height U	Width HP	Depth D mm	Depth D1 mm	Part no. with front handle	Part no. without front handle
3	84	175	175	24567-161	24563-161
3	84	235	175/235	24567-162	24563-162
3	84	295	175/235/295	24567-163	24563-163
3	84	355	175/235/295/355	24567-164	24563-164
6	84	175	175	24567-461	24563-461
6	84	235	175/235	24567-462	24563-462
6	84	295	175/235/295	24567-463	24563-463
6	84	355	175/235/295/355	24567-464	24563-464

### Accessories

19" assembly kit (screw, washer, nut) ( 8 x screws, 8 x plastic washers, 8 x cage nuts)	21100-435
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### Guide rails (standard), ESD clips

Depth D2 mm	Qty/PU piece	Part no.
160	10	24560-351
220	10	24560-353
280	10	24560-379
340	10	24560-380
ESD clip for guide rails PU 50 pieces		24560-255

Torx panhead screw, for extra bolting of the guide rails, 2.5 x 9.3, zinc-plated, PU 100 pieces; torque max. 0.2 Nm	24560-141
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### Cover plates for bolting to side panel

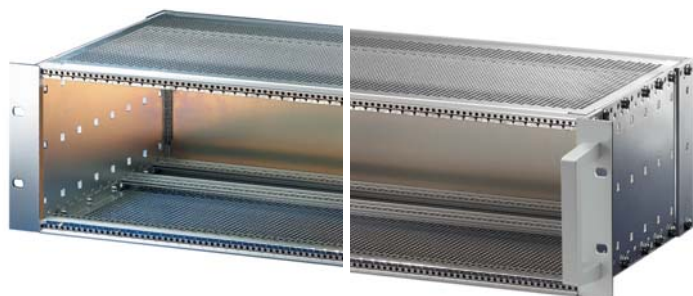
Depth D2 mm	Width HP	Qty/PU piece	Part no.
160	84	2	24560-078
220	84	2	24560-079
280	84	2	24560-080
340	84	2	24560-081

### Note

- ServicePLUS configuration from page 6.16



ServicePLUS see page 6.16

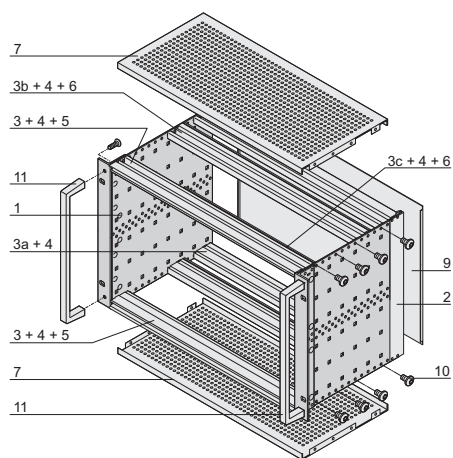
Subracks - *europac* PRO Kits

Without front handle

06102008

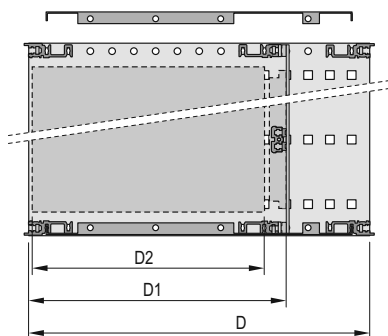
With front handle

06111001



6 U

06111058



06113055

D = overall depth, D1 = insertion depth,  
D2 = board depth = D1 - 15 mm



04400001

Rear horizontal rail for backplane mounting with insulation strip

Kit, "heavy", shielded,  
for backplane mounting

- Subrack with side panel type H ("heavy"), 19" bracket is firmly fixed to side panel (tox-cold welded)
- Rear horizontal rail for backplane mounting with insulation strip
- Shielding typically 40 dB at 1 GHz, 30 dB at 2 GHz, assuming that the front is closed with sealed front panels
- Shock and vibration resistance up to 5 g
- Installed load up to 15 kg
- Versions with/without front handles

**NEW**

## Delivery comprises (Kit)

Item	Qty		Description
	3 U	6 U	
1	2	2	Side panel type H, Al, 2 mm, passivated, with 19" support bracket (tox-cold welded); for textile EMC gasket
2	2	2	Rear corner profile for textile EMC gasket
3	2	2	Front horizontal rail (H-KD)
3 a	2	2	Rear horizontal rail (H-KD)
3 b	2	2	Rear horizontal rail (H-ST)
3 c	-	1	Rear horizontal rail centre (ST)
4	6	8	Threaded insert (pre-fitted)
5	2	2	Perforated strip (pre-fitted)
6	2	4	Insulation strip (pre-fitted)
7	2	2	EMC cover plate
8	1	1	EMC gasketing material (pre-fitted)
9	1	1	EMC rear panel
10	1	1	Fixing material kit, user manual
11	2	2	Front handle (on version with front handle only)

## Order Information

Height U	Width HP	Depth D mm	Depth D1 mm	Part no. with front handle	Part no. without front handle
3	84	235	175/235	<b>24567-172</b>	<b>24563-172</b>
3	84	295	175/235/295	<b>24567-173</b>	<b>24563-173</b>
3	84	355	175/235/295	<b>24567-174</b>	<b>24563-174</b>
6	84	235	175/235	<b>24567-472</b>	<b>24563-472</b>
6	84	295	175/235/295	<b>24567-473</b>	<b>24563-473</b>
6	84	355	175/235/295	<b>24567-474</b>	<b>24563-474</b>

## Accessories

<b>19" assembly kit (screw, washer, nut) (</b> 8 × screws, 8 × plastic washers, 8 × cage nuts)	<b>21100-435</b>
---	------------------

## Guide rails (standard), ESD clips

Depth D2 mm	Qty/PU piece	Part no.
160	10	<b>24560-351</b>
220	10	<b>24560-353</b>
280	10	<b>24560-379</b>

<b>ESD clip for guide rails PU 50 pieces</b>	<b>24560-255</b>
--	------------------

<b>Torx panhead screw</b> , for extra bolting of the guide rails, 2.5 × 9.3, zinc-plated, PU 100 pieces; torque max. 0.2 Nm	<b>24560-141</b>
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## Note

- ServicePLUS configuration from page 6.16



ServicePLUS see page 6.16

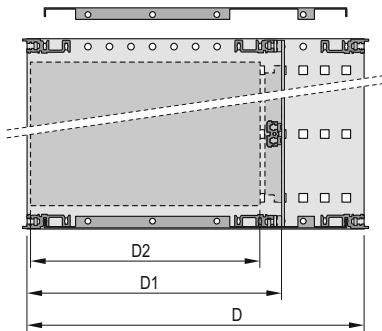
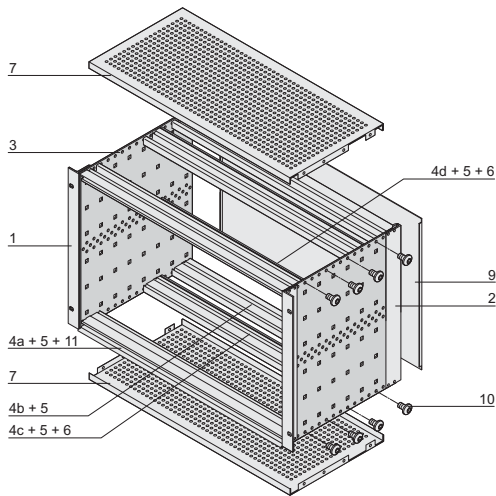
## Subracks - *europac* PRO Kits

### Kit, for CompactPCI, for backplane mounting, without rear I/O, shielded



6 U

06102009



D = overall depth, D1 = insertion depth,  
D2 = board depth = D1 - 15 mm



04400001

Rear horizontal rail for backplane mounting with insulation strip

- Subrack with side panel type F ("flexible") for CompactPCI plug-in units with high insertion and withdrawal forces
- Rear horizontal rail for backplane mounting with insulation strip
- Shielding typically 40 dB at 1 GHz, 30 dB at 2 GHz, assuming that the front is covered with shielded front panels
- Installed load up to 11 kg

#### Delivery comprises (kit)

Item	Qty		Description
	3 U	6 U	
1	2	2	19" support bracket for <b>EMC textile gasket</b>
2	2	2	Rear corner profile for <b>EMC textile gasket</b>
3	2	2	Side panel type F
4	1	-	Front horizontal rail (H-KD)
4 a	1	2	Front horizontal rail IEEE (H-LD)
4 b	2	2	Rear horizontal rail (L-KD)
4 c	2	2	Rear horizontal rail (H-ST), for backplane mounting with insulation strip
4 d	-	1	Centre horizontal rail (ST)
5	6	8	Threaded insert (pre-fitted)
6	2	4	Insulation strip (pre-fitted)
7	2	2	EMC cover plate
8	1	1	EMC gasketing material (pre-fitted)
9	1	1	Rear panel
10	1	1	Fixing material kit
11	2	2	Perforated strip (pre-fitted in item 4+4a)
12	1	1	User manual

06102078

#### Order Information

Height	Width	Depth D	Depth D1	Part no.
U	HP	mm	mm	
3	84	235	175	<b>24563-152</b>
6	84	235	175	<b>24563-452</b>

#### Accessories

<b>Guide rail with coding, red</b> 160 mm deep, PBT, UL 94 V-0, groove width 2 mm, PU 10 pieces	<b>24560-356</b>
<b>Guide rail with coding, grey</b> 160 mm deep, PBT, UL 94 V-0, groove width 2 mm, PU 10 pieces	<b>24560-358</b>
<b>Guide rail with coding, green, offset</b> 160 mm deep, PBT, UL 94 V-0, groove width 2 mm, PU 10 pieces	<b>24560-359</b>
<b>ESD clip for guide rails</b> PU 50 pieces	<b>24560-255</b>
<b>ESD clip for alignment pin of CPCI/VME64x handle</b> PU 50 pieces	<b>24560-256</b>
<b>Torx panhead screw</b> 2.5 x 9.3, zinc-plated, PU 100 pieces; torque max. 0.2 Nm	<b>24560-141</b>
<b>Coding peg</b> PC, UL 94 V-0, RAL 7035, PU 100 pieces	<b>20817-501</b>
<b>19" assembly kit (screw, washer, nut)</b> ( 8 x screws, 8 x plastic washers, 8 x cage nuts)	<b>21100-435</b>

06113055

#### Note

- ServicePLUS configuration from page 6.16



ServicePLUS see page 6.16

# Subracks - europac PRO Kits

## Kit, for CompactPCI, for backplane mounting, for rear I/O, shielded

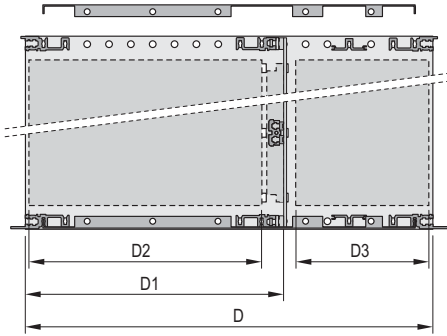
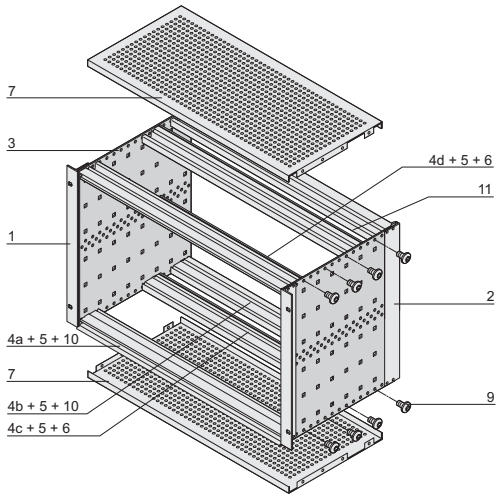


- Subrack with side panel type F ("flexible") for CompactPCI plug-in units with high insertion and withdrawal forces
- For rear I/O boards (depth 80 mm)
- Rear horizontal rail for backplane mounting with insulation strip
- Shielding typically 40 dB at 1 GHz, 30 dB at 2 GHz, assuming that the front is covered with shielded front panels
- Installed load up to 11 kg

### Delivery comprises (kit)

Item	Qty		Description
	3 U	6 U	
1	2	2	19" support bracket for <b>EMC textile gasket</b>
2	2	2	Rear corner profile for <b>EMC textile gasket</b>
3	2	2	Side panel type F
4	1	-	Front horizontal rail (H-KD)
4 a	1	2	Front horizontal rail IEEE (H-LD)
4 b	2	2	Rear horizontal rail (H-KD)
4 c	2	2	Rear horizontal rail (H-ST), with insulation strip for backplane mounting
4 d	-	1	Centre horizontal rail (ST)
5	6	8	Threaded insert (pre-fitted)
6	2	4	Insulation strip, fixed
7	2	2	EMC cover plate
8	1	1	EMC gasketing material (pre-fitted)
9	1	1	Fixing material kit
10	2	2	Perforated strip (pre-fitted)
11	2	2	Horizontal rail type AB
12	1	1	User manual

6 U



D = overall depth, D1 = insertion depth, D2 = board depth = D1 - 15 mm, D3 = rear I/O board depth



Rear horizontal rail for backplane mounting with insulation strip

### Order Information

Height U	Width HP	Depth D mm	Depth D1 mm	Depth D3 mm	Part no.
3	84	275	175	80	<b>24563-157</b>
6	84	275	175	80	<b>24563-457</b>

### Accessories

<b>Guide rail with coding, red</b> 160 mm deep, PBT, UL 94 V-0, groove width 2 mm, PU 10 pieces	<b>24560-356</b>
<b>Guide rail with coding, grey</b> 160 mm deep, PBT, UL 94 V-0, groove width 2 mm, PU 10 pieces	<b>24560-358</b>
<b>Guide rail with coding, green, offset</b> 160 mm deep, PBT, UL 94 V-0, groove width 2 mm, PU 10 pieces	<b>24560-359</b>
<b>ESD clip for guide rails</b> PU 50 pieces	<b>24560-255</b>
<b>ESD clip for alignment pin of CPCI/VME64x handle</b> PU 50 pieces	<b>24560-256</b>
<b>Guide rail with coding, red</b> 70 mm deep, PU 10 pieces	<b>24560-355</b>
<b>Guide rail with coding, grey</b> 70 mm deep, PU 10 pieces	<b>24560-360</b>
<b>Torx panhead screw</b> 2.5 x 9.3, zinc-plated, PU 100 pieces; torque max. 0.2 Nm	<b>24560-141</b>
<b>Coding peg</b> PC, UL 94 V-0, RAL 7035, PU 100 pieces	<b>20817-501</b>
<b>19" fixing material kit (screw, washer, nut)</b> ( 8 x screws, 8 x plastic washers, 8 x cage nuts)	<b>21100-435</b>

### Note

- ServicePLUS configuration from page 6.16



ServicePLUS see page 6.16

## Subracks - *europac* **PRO** ServicePLUS



### configuration

Components can be varied and combined freely

**Simple. Fast. To the ideal product.**

- Configuration tables from page 6.19
- Online configuration: [www.schroff.co.uk/configuration](http://www.schroff.co.uk/configuration)



### assembly

Fitting of all mechanical, electrical and electronic components by our specialists

**Assembled by professionals. Double benefit!**

- Professional and reliable from quantity 1
- Ready for despatch within 5 working days



### modification

Custom drillings, cut-outs and special colours for off-the-shelf products

**Small changes. Large impact.**

- Custom modifications from quantity 1
- Ready for despatch within 10 working days



### solution

Integration and custom developments

**Simple. Fast. From one source.**

- Special sizes (depth and width)
- Individual heat dissipation concepts
- Ready for despatch within 10 working days



### express

Delivery time to customer's request

**When fast has to be faster.**

- Express logistics



### academy

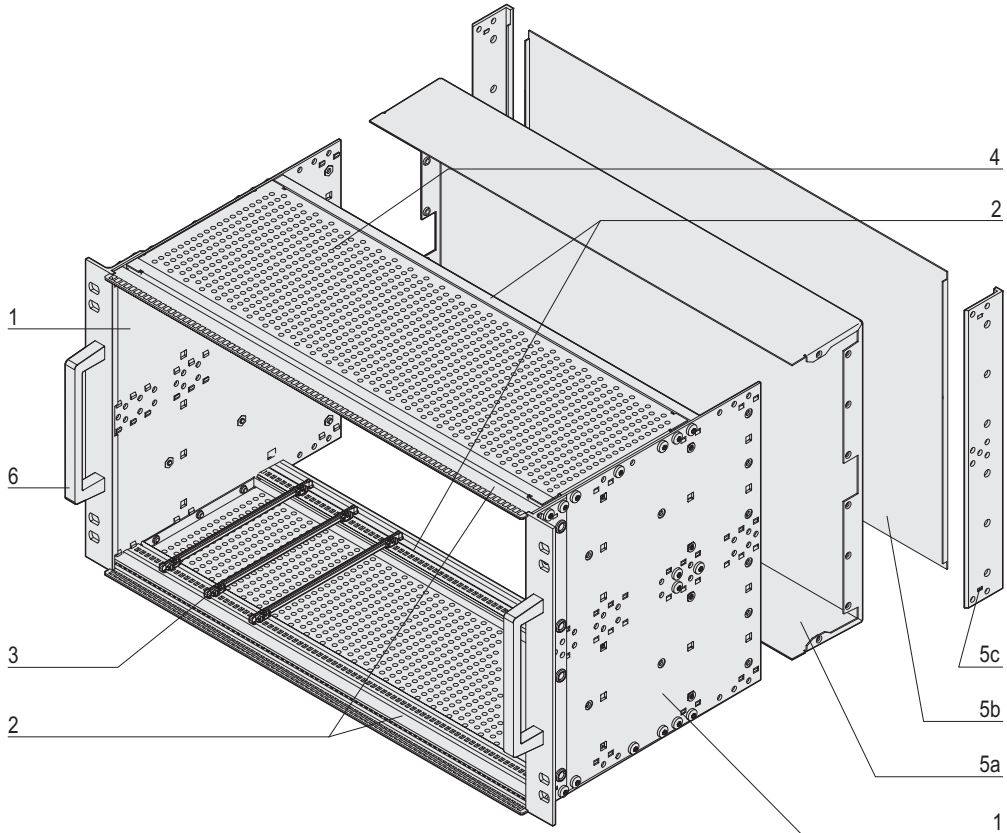
Knowledge transfer and partnership

**Knowledge. Sharing. Partnerships.**

- Seminars, CAD drawings, test reports, user reports

# Subracks - *europac* PRO ServicePLUS

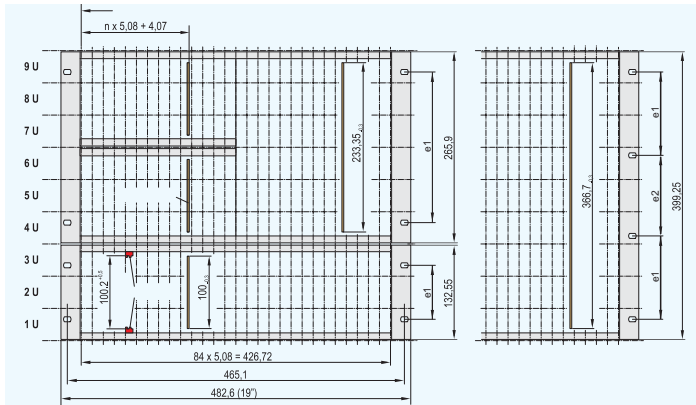
## Overview of individual components for shielded or unshielded subracks



06108086

Item	Description	Description	page
Item 1	Side panel	Establishes the height and depth of the subrack; Al, 2 mm, with universal hole positions for assembly of accessories. Three versions: The "flexible" one with separate 19" brackets as well as two others with integrated 19" brackets for "light" and "heavy" applications.	6.21
Item 2	Horizontal rail	Establishes the width of the subrack; Al extrusion, with defined hole positions for guide rails, grooves for threaded inserts, M4 thread, functional rail shapes, basically differing with regard to their mechanical loading capacity: "light" (load up to 7.5 kg) and "heavy" (load > 7.5 kg).	6.29
Item 3	Guide rails	Act as interface between subracks and boards, for different board formats, are available in plastic or metal, optionally codable and can be fitted with ESD clips to allow electrostatic discharge, also optionally.	6.37
Item 4	Cover plates	Provide mechanical protection and/or EMC shielding and are perforated.	6.44
Item 5	Rear/front	Rear hood (5a) or front panel (5b) with corner profile (5c) act as support for EMC shielding gaskets used in conjunction with shielded front panels. Note: Rear hood and corner profile cannot be fitted simultaneously.	6.49
Item 6	Handles	Can be mounted on the 19" brackets.	6.27
-	EMC shielding (without illustration)	Extensive component range for specific shielding of subracks with respect to their application.	6.54
-	Interior assemblies (without illustration)	Universal assemblies, e.g. for horizontal and vertical assembly and for mounting plates.	6.59

## Subrack dimensions



20304051

- Dimensions in accordance with international standards EC 60297-3-100, IEEE 1101.1/.10/.11; please see the Schroff Standards Summary for details
- Side panels
  - Aluminium, 2 mm
  - Round holes for mounting horizontal rails (depth grid 15 mm)
  - Impressions on the inner side of the side panel act as an anti-rotation guard and positioning aid for the horizontal rails
  - Square holes (6 x 6 mm) provide universal fixing for components such as backplane shielding; version without square holes available on request

### Depth grid

The depth grid is 15 mm, the mounting holes in the side panel are decisive for the configurability of individual components; thus any combination of various individual parts is possible



06197003

### Side panel 3 U, 6 U and 9 U

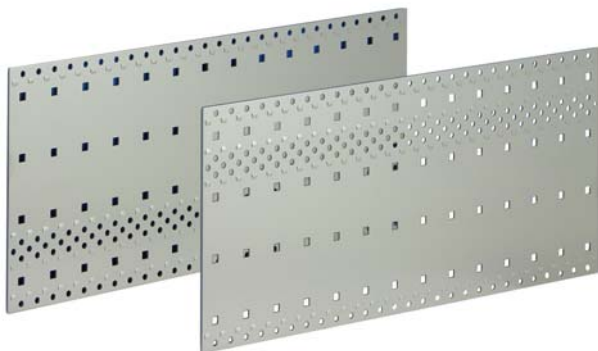
3 and 6 U side panels have the same hole positions (the 6 U is a doubling vertically of the 3 U); thus subdivisions can be made in the vertical dimension (6 U: 2 x 3 U; 9 U: 3 x 3 U)



06108008

### Side panel 4 U

4 U side panels have the same hole positions as 3 U and additionally 1 U (above or beneath the 3 U installation); this height allows the construction of a 3 U unit with 1 U clearance for cabling or airflow

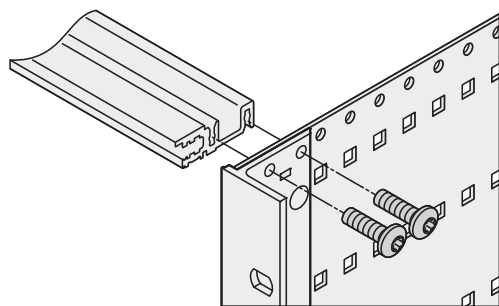


06108011



Subracks - *europac* PRO ServicePLUS

## Side panels



Side panel - horizontal rail assembly

06108062

- Aluminium
- Round holes for mounting horizontal rails (depth grid 15 mm)
- Impressions on the inner side of the side panel act as an anti-rotation guard and positioning aid for the horizontal rails
- Square holes (6 x 6 mm) provide universal fixing for components such as backplane shielding; version without square holes available on request
- Only one type of screw driver is needed for the assembly (torx panhead screw, M4 x 14; torque side panel - horizontal rail 2.4 Nm; torque side panel - cover plate 1.3 Nm)
- 4 versions of the side panel:
  - Type F = flexible
  - Type H = heavy
  - Type L = light
  - Type R = rugged

## Note

- Type R - rugged side panels see "Rugged Subracks" section, page 6.97



06197003

## Type F (flexible)

- Universal version: 19" bracket (please order separately) can be fitted variably to front, rear or depth-offset
- Heights: 3, 4, 6 and 9 U  
Depths: 175, 235, 275, 277.75, 295, 355, 415 and 475 mm;  
Other dimensions on request
- 2 EMC shielding concepts for the front/rear: stainless steel or textile EMC gasket
- Installed load up to 11 kg



06197004

## Type H (heavy)

- 19" bracket is tox-cold welded to side panel; particularly designed for mechanically demanding environments (vibration resistance, applications requiring high levels of shock and vibration, e.g. IEC 61587-2)
- Heights: 3 and 6 U  
Depths: 175, 235, 295 and 355 mm  
Other dimensions on request
- 2 EMC shielding concepts for the front/rear: with stainless steel or textile EMC gasket
- Installed load up to 15 kg



06197002

## Type L (light)

- Side panel with moulded 19" bracket, for standard applications, unshielded
- Particularly cost-effective version (not suitable for EMC applications)
- Heights: 3 and 6 U  
Depths: 175, 235 and 295 mm  
Other dimensions on request
- Installed load up to 7.5 kg

## Subracks - *europac* PRO ServicePLUS

### Side panels type F for stainless steel gasket

#### Order Information

		 06197003	 bza45819	 06106050	 06102501	 BGA45760	 BZA46573	 BPA45867
		without 19" bracket, Al, 2 mm, passivated, please order 19" bracket and corner profile separately	with lateral grooves for stainless steel EMC gasket, Al extrusion, rear side etched, front anodised	with lateral grooves for stainless steel EMC gasket, Al extrusion, rear side etched, front anodised please order front handles separately, see page 6.27	Al extrusion, passivated	inserted laterally into the grooves of the front panel	Al extrusion, surface clear passivated; with lateral grooves for stainless steel EMC gasket; rear hood cannot be mounted simultaneously	Zn die-cast, incl. fixing material kit, for connecting two by two side panels (on top of each other)
Height U	Depth mm	1 piece	PU 1 pair	PU 1 pair	PU 1 pair	PU 10 pieces	PU 1 pair	PU 4 pieces
3	175	34560-185						
3	235	34560-187						
3	275	34579-300						
3	277.75	34579-002						
3	295	34560-189	24560-197	24560-198	24560-199	21101-705	24561-198	21101-954
3	355	34560-191						
3	415	34560-193						
3	475	34560-195						
4	175	34560-285						
4	235	34560-287						
4	295	34560-289						
4	355	34560-291	24560-297	24560-298	24560-299	21101-713	24561-298	21101-954
4	415	34560-293						
4	475	34560-295						
6	175	34560-485						
6	235	34560-487						
6	275	34579-038						
6	277.75	34579-012						
6	295	34560-489	24560-497	24560-498	24560-499	21101-707	24561-498	21101-954
6	355	34560-491						
6	415	34560-493						
6	475	34560-495						
6	970	34560-496						
9	175	34560-785						
9	235	34560-787						
9	295	34560-789	24560-797	24560-798	24560-799	21101-709	24561-798	21101-954
9	355	34560-791						
9	415	34560-793						
Screw, M4 x 14, PU 100 pieces, for fastening horizontal rail to side panel		24560-130	24560-130	24560-130	24560-130	-	24560-130	-
Screw, M4 x 10, required if guide rails are screwed to slot 1, PU 100 pieces		24560-155	24560-155	24560-155	24560-155	-	24560-155	-

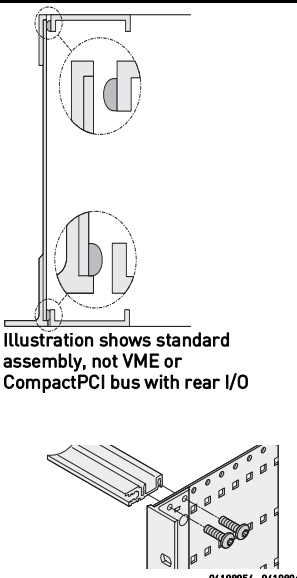

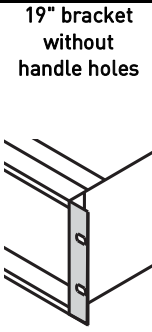
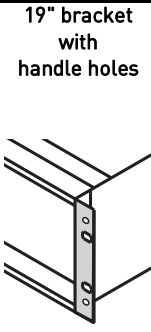
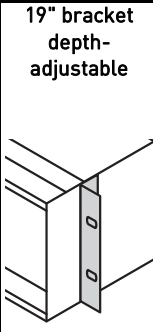
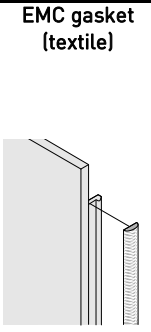
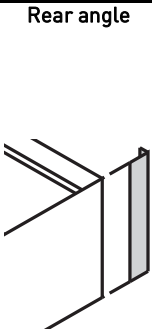
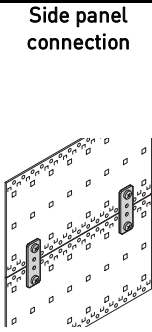
1) CompactPCI 2) VME64x 3) Grid holes of side panel 3 + 1 U

■ View of side panels 3, 4, 6, 9 U see page 6.20

Subracks - *europac* PRO ServicePLUS

## Side panels type F for textile EMC gasket

## Order Information

 <p>Illustration shows standard assembly, not VME or CompactPCI bus with rear I/O</p>		 <p>Side panel type F</p>	 <p>19" bracket without handle holes</p>	 <p>19" bracket with handle holes</p>	 <p>19" bracket depth-adjustable</p>	 <p>EMC gasket (textile)</p>	 <p>Rear angle</p>	 <p>Side panel connection</p>
Height U	Depth mm							
		without 19" bracket, Al, 2 mm, passivated, please order 19" bracket and corner profile separately	Al extrusion for textile EMC gasket rear side etched, front anodised	Al extrusion for textile EMC gasket, rear side etched, front anodised, please order front handles separately, see page 6.27	Al extrusion, passivated	textile gasket, core: foam, sleeve: textile cladding with CuNi coating, UL 94 V-0	Al extrusion, etched; for textile EMC gasket	Zn die-cast, incl. fixing material kit, for connecting two by two side panels (on top of each other)
		1 piece	PU 1 pair	PU 1 pair	PU 1 pair	PU 10 pieces	PU 1 pair	PU 4 pieces
3	175	<b>34560-185</b>						
3	235	<b>34560-187</b>						
3	275	1) <b>34579-300</b>						
3	277.75	2) <b>34579-002</b>	<b>24564-197</b>	<b>24564-198</b>	<b>24560-199</b>	<b>21101-853</b>	<b>24564-199</b>	<b>21101-954</b>
3	295	<b>34560-189</b>						
3	355	<b>34560-191</b>						
3	415	<b>34560-193</b>						
3	475	<b>34560-195</b>						
4	175	3) <b>34560-285</b>						
4	235	3) <b>34560-287</b>						
4	295	3) <b>34560-289</b>	<b>24564-297</b>	<b>24564-298</b>	<b>24560-299</b>	<b>21101-858</b>	<b>24564-299</b>	<b>21101-954</b>
4	355	3) <b>34560-291</b>						
4	415	3) <b>34560-293</b>						
4	475	3) <b>34560-295</b>						
6	175	<b>34560-485</b>						
6	235	<b>34560-487</b>						
6	275	1) <b>34579-038</b>						
6	277.75	2) <b>34579-012</b>	<b>24564-497</b>	<b>24564-498</b>	<b>24560-499</b>	<b>21101-855</b>	<b>24564-499</b>	<b>21101-954</b>
6	295	<b>34560-489</b>						
6	355	<b>34560-491</b>						
6	415	<b>34560-493</b>						
6	475	<b>34560-495</b>						
6	970	<b>34560-496</b>						
9	175	<b>34560-785</b>						
9	235	<b>34560-787</b>						
9	295	<b>34560-789</b>	<b>24564-797</b>	<b>24564-798</b>	<b>24560-799</b>	<b>21101-859</b>	<b>24564-799</b>	<b>21101-954</b>
9	355	<b>34560-791</b>						
9	415	<b>34560-793</b>						
Screw, M4 x 14, PU 100 pieces, for fastening horizontal rail to side panel		<b>24560-130</b>	<b>24560-130</b>	<b>24560-130</b>	<b>24560-130</b>	-	<b>24560-130</b>	-
Screw, M4 x 10, required if guide rails are screwed to slot 1, PU 100 pieces		<b>24560-155</b>	<b>24560-155</b>	<b>24560-155</b>	<b>24560-155</b>	-	<b>24560-155</b>	-

1) CompactPCI 2) VME64x 3) Grid holes of side panel 3 + 1 U

## Subracks - *europac* PRO ServicePLUS

### Side panels type H for stainless steel EMC gasket

#### Order Information

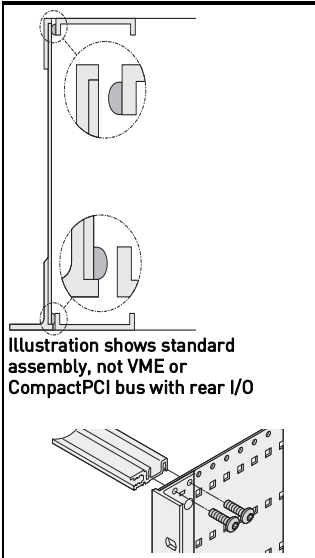
		Side panel type H for stainless steel EMC gasket without handle holes	Side panel type H for stainless steel EMC gasket with handle holes	EMC gasket (stainless steel)	Rear angle	Side panel connection
		<p>06197004</p> <p>for high mechanical demands, 19" bracket, tox-cold welded, Al, 2 mm, clear passivated, front anodised</p>	<p>06107001</p> <p>for high mechanical demands, 19" bracket, tox-cold welded, Al, 2 mm, clear passivated, front anodised, please order front handles separately see page 6.27</p>	<p>BBA45760</p> <p>inserted laterally into the grooves of the front panel</p>	<p>BZA46573</p> <p>Al extrusion, surface clear passivated; with lateral grooves for stainless steel EMC gasket; rear hood cannot be mounted simultaneously</p>	<p>BPA45867</p> <p>Zn die-cast, incl. fixing material kit, for connecting two by two side panels (on top of each other)</p>
Height	Depth					
U	mm	PU 1 pair	PU 1 pair	PU 10 pieces	PU 1 pair	PU 4 pieces
3	175	24566-125	24567-125			
3	235	24566-127	24567-127			
3	275	-	-			
3	277.75	-	-	21101-705	24561-198	21101-954
3	295	24566-129	24567-129			
3	355	24566-131	24567-131			
3	415	-	-			
3	475	-	-			
4	175					
4	235					
4	295					
4	355					
4	415					
4	475					
6	175	24566-425	24567-425			
6	235	24566-427	24567-427			
6	275	-	-			
6	277.75	-	-	21101-707	24561-498	21101-954
6	295	24566-429	24567-429			
6	355	24566-431	24567-431			
6	415	-	-			
6	475	-	-			
6	970	-	-			
9	175					
9	235					
9	295					
9	355					
9	415					
Screw, M4 x 14, PU 100 pieces, for fastening horizontal rail to side panel		24560-130	24560-130	-	24560-130	-
Screw, M4 x 10, required if guide rails are screwed to slot 1, PU 100 pieces		24560-155	24560-155	-	24560-155	-

1) CompactPCI 2) VME64x 3) Grid holes of side panel 3 + 1 U

Subracks - *europac* PRO ServicePLUS

Side panels type H for textile EMC gasket

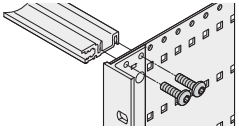

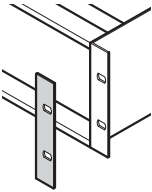
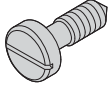
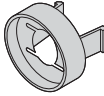
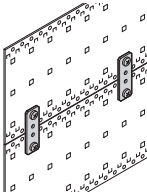
Order Information

 <p>Illustration shows standard assembly, not VME or CompactPCI bus with rear I/O</p>		Side panel type H for textile EMC gasket without handle holes	Side panel type H for textile EMC gasket with handle holes	EMC gasket (textile)	Rear angle	Side panel connection
Height	Depth					
U	mm	PU 1 pair	PU 1 pair	PU 10 pieces	PU 1 pair	PU 4 pieces
3	175	<b>24564-145</b>	<b>24566-145</b>			
3	235	<b>24564-147</b>	<b>24566-147</b>			
3	275 1)	-	-			
3	277.75 2)	-	-	21101-853	24564-199	21101-954
3	295	<b>24564-149</b>	<b>24566-149</b>			
3	355	<b>24564-151</b>	<b>24566-151</b>			
3	415	-	-			
3	475	-	-			
4	175 3)					
4	235 3)					
4	295 3)					
4	355 3)					
4	415 3)					
4	475 3)					
6	175	<b>24564-445</b>	<b>24566-445</b>			
6	235	<b>24564-447</b>	<b>24566-447</b>			
6	275 1)	-	-			
6	277.75 2)	-	-	21101-855	24564-499	21101-954
6	295	<b>24564-449</b>	<b>24566-449</b>			
6	355	<b>24564-451</b>	<b>24566-451</b>			
6	415	-	-			
6	475	-	-			
6	970	-	-			
9	175					
9	235					
9	295					
9	355					
9	415					
Screw, M4 x 14, PU 100 pieces, for fastening horizontal rail to side panel		<b>24560-130</b>	<b>24560-130</b>	-	<b>24560-130</b>	-
Screw, M4 x 10, required if guide rails are screwed to slot 1, PU 100 pieces		<b>24560-155</b>	<b>24560-155</b>	-	<b>24560-155</b>	-

1) CompactPCI 2) VME64x 3) Grid holes of side panel 3 + 1 U

## Side panels type L

### Order Information

		 <small>06197002</small> Al, 2 mm, passivated	 <small>BZA45810</small> for decorative finish of 19" bracket, Al, 2 mm, anodised	 <small>06708055</small> M6 x 16, St, nickel-plated	 <small>00508056</small> PPE, black	 <small>BPA45867</small> Zn die-cast, incl. fixing material kit, for connecting two by two side panels (on top of each other)
Height U	Depth mm	1 piece		PU 100 pieces	PU 100 pieces	PU 4 pieces
3	175	<b>34561-185</b>				
3	235	<b>34561-187</b>				
3	275 1)	-				
3	277.75 2)	-				
3	295	<b>34561-189</b>	<b>34561-197</b>	<b>21100-565</b>	<b>21100-566</b>	<b>21101-954</b>
3	355	-				
3	415	-				
3	475	-				
4	175 3)					
4	235 3)					
4	295 3)	-	-	-	-	-
4	355 3)					
4	415 3)					
4	475 3)					
6	175	<b>34561-485</b>				
6	235	<b>34561-487</b>				
6	275 1)	-				
6	277.75 2)	-				
6	295	<b>34561-489</b>	<b>34561-497</b>	<b>21100-565</b>	<b>21100-566</b>	<b>21101-954</b>
6	355	-				
6	415	-				
6	475	-				
6	970	-				
9	175					
9	235					
9	295	-	-	-	-	-
9	355					
9	415					
Screw, M4 x 14, PU 100 pieces, for fastening horizontal rail to side panel		<b>24560-130</b>	-	-	-	-
Screw, M4 x 10, required if guide rails are screwed to slot 1, PU 100 pieces		<b>24560-155</b>	-	-	-	-

1) CompactPCI 2) VME64x 3) Grid holes of side panel 3 + 1 U

Subracks - *europac* PRO ServicePLUS

## Front handles, wall-mounting brackets

## Order Information

				Front handle		Universal front handle	Wall-mounting bracket
				clear anodised	black anodised		
				<p>Al extrusion, anodised load-carrying capacity 30 kg</p> <p>06102068</p>		<p>3 parts: Al extrusion, clear anodised, 2 end pieces, plastic, PA, black; width 12 mm, depth 40 mm load-carrying capacity 10 kg</p> <p>06102069</p>	<p>Al, 2.5 mm, passivated; bolted to subrack in place of the 19" bracket</p> <p>06104063</p>
Height	Depth	H	E	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	PU 1 pair
3	175	102	88.0	<b>10501-005</b>	<b>10501-026</b>	<b>10502-057</b>	<b>24562-197</b>
3	235	102	88.0				
3	275	102	88.0				
3	277.75	102	88.0				
3	295	102	88.0				
3	355	102	88.0				
3	415	102	88.0				
3	475	102	88.0				
4	175	146	133.4	<b>10501-018</b>	-	<b>10502-060</b>	24562-297
4	235	146	133.4				
4	295	146	133.4				
4	355	146	133.4				
4	415	146	133.4				
4	475	146	133.4				
6	175	249	235.0	<b>10501-008</b>	<b>10501-029</b>	<b>10502-065</b>	<b>24562-497</b>
6	235	249	235.0				
6	275	249	235.0				
6	277.75	249	235.0				
6	295	249	235.0				
6	355	249	235.0				
6	415	249	235.0				
6	475	249	235.0				
6	970	249	235.0				
9	175	249	235.0	<b>10501-008</b>	<b>10501-029</b>	<b>10502-065</b>	24562-797
9	235	249	235.0				
9	295	249	235.0				
9	355	249	235.0				
9	415	249	235.0				
Screw M5 x 12, PU 100 pieces				<b>24560-183</b>	<b>24560-183</b>	<b>24560-183</b>	-
Screw M5 x 12, PU 4 pieces				<b>24560-182</b>	<b>24560-182</b>	<b>24560-182</b>	-
Screw, M4 x 14, PU 100 pieces				-	-	-	<b>24560-130</b>

1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple

# Subracks - *europac* PRO ServicePLUS

## Horizontal rails



- Aluminium profile, surface anodised, conductive contact surfaces for EMC gaskets
- The horizontal rail is marked with sequential numbering (for sizes > 28 HP) to facilitate positioning of the guide rails
- Horizontal rails are fixed to the side panel using M4 bolts with torx 20 drive
- There are 3 different horizontal rails for different loading levels
  - light, for up to 7.5 kg
  - heavy, for 7.5 kg to 15 kg
  - rugged, for 15 kg to approx. 60 kg

## Mounting position of the horizontal rails

PCB as deep as side panel

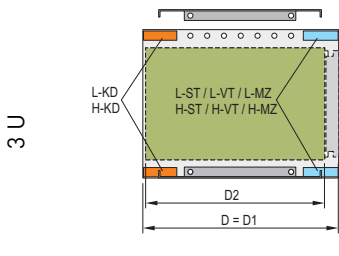
Cabling space behind backplane

Rear I/O installation  
(CompactPCI, VME64x applications)

front rear

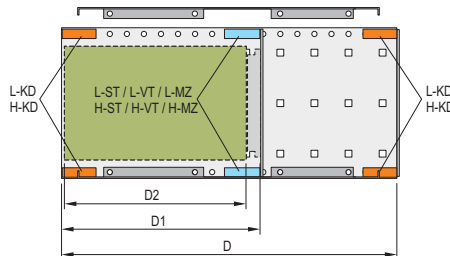
front rear

front rear



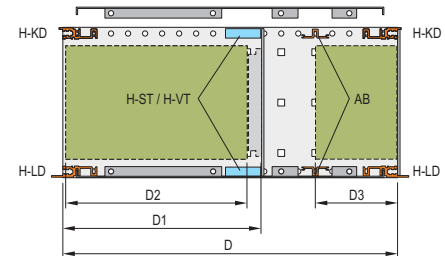
06112081

160, 220, 280 mm, ...



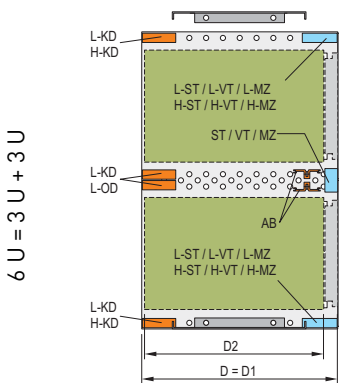
06112083

160, 220, 280 mm, ...



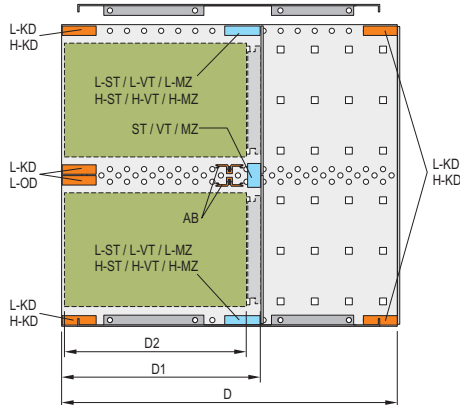
06112085

160 mm/80 mm



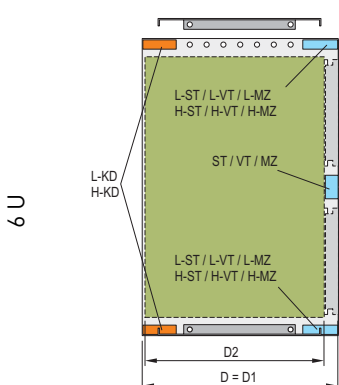
06112088

160, 220, 280 mm, ...



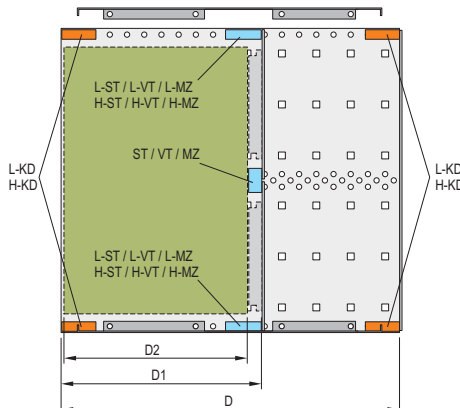
06112087

160, 220, 280 mm, ...



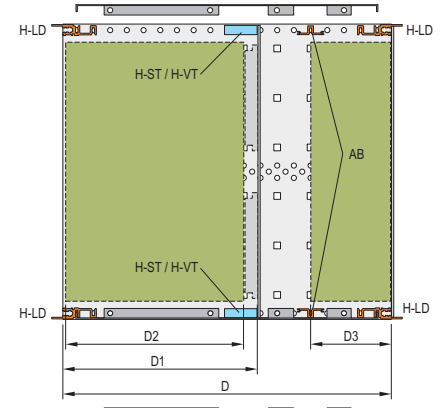
06112082

160, 220, 280 mm, ...



06112084

160, 220, 280 mm, ...



06112086

160 mm/80 mm



# Subracks - *europac* PRO ServicePLUS

## Front horizontal rails

Assembly 3 U, 2 x 3 U, 6 U

"light" (L)

"heavy" (H)

"heavy" (H)



06197007

06197008

06197009

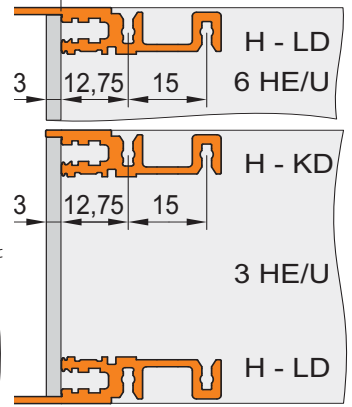
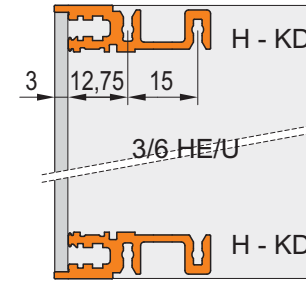
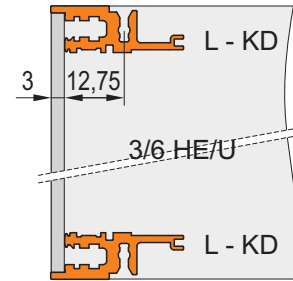
3 U/6 U



Short lip

Short lip

Long lip



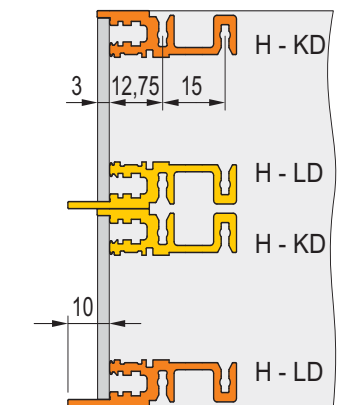
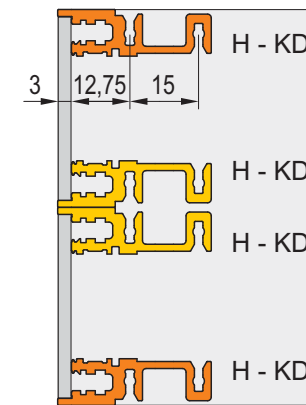
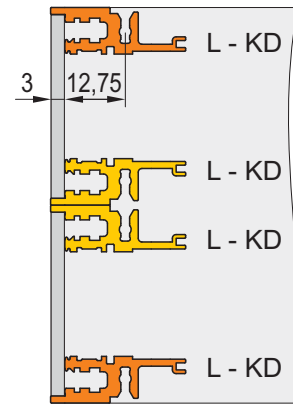
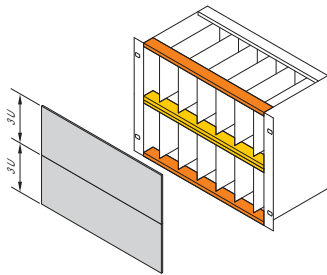
bza44980 bza44974

06105060

06105061

06108063

2 x 3 U



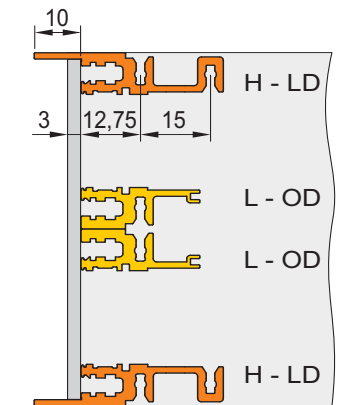
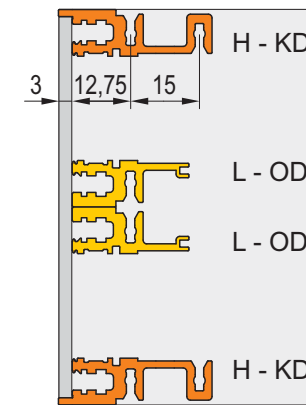
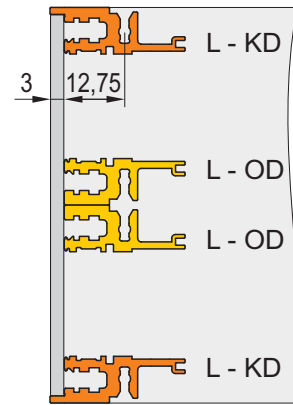
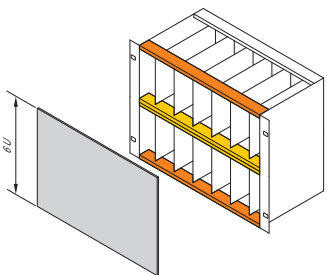
bza44972

06105062

06105063

06108064

2 x 3 U, 6 U



06105059

06105064

06105065

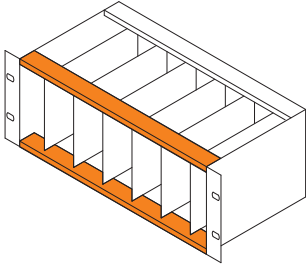




06108065

L-OD = Light - without lip, L-KD = Light - short lip, H-KD = Heavy - short lip, H-LD = Heavy - long lip

## Subracks - *europac*PROServicePLUS

### Front horizontal rails

#### Order Information

 <small>bza44980</small>		 <small>06197006</small>	 <small>06197007</small>	 <small>06197008</small>	 <small>06197009</small>
With HP markings from 28 HP, Al extrusion, anodised finish, conductive contact surface		Al extrusion, anodised finish, conductive contact surface, with printed HP markings  without lip: 2 x 3 U installation and continuous 6 U front panel	Al extrusion, anodised finish, conductive contact surface, with printed HP markings  short lip: horizontal rail and front panel form a single plane	Al extrusion, anodised finish, conductive contact surface, with printed HP markings  short lip: horizontal rail and front panel form a single plane	With long lip for insertion/ extraction of CompactPCI and VME64x boards "heavy" Type H-LD long lip  Al extrusion, anodised finish, conductive contact surface, with printed HP markings  long lip: for insertion/extraction of CompactPCI or VME64x boards
Usable length HP	Length mm	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>
20	106.68	34560-020	34560-120	34560-220	34560-320
28	147.32	34560-028	34560-128	34560-228	34560-328
40	208.28	34560-040	34560-140	34560-240	34560-340
42	218.44	34560-042	34560-142	34560-242	34560-342
63	325.12	34560-063	34560-163	34560-263	34560-363
84	431.80	34560-084	34560-184	34560-284	34560-384
-	1000	34560-001	34560-101	34560-201	34560-301
Screw, M4 x 14, PU 100 pieces		24560-130	24560-130	24560-130	24560-130
Screw, M4 x 10, required if guide rails are screwed to slot 1, PU 100 pieces		-	-	24560-155	24560-155
Threaded inserts see page		6.35	6.35	6.35	6.35

<sup>1)</sup> SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple

"light": loading capacity up to approx. 7.5 kg; "heavy": loading capacity > 7.5 kg

#### Note

- 1000 mm version without M4 thread to front, without printed markings and without notch for 19"-bracket
- Rugged horizontal rails with 3 fixing holes see section "Rugged Subracks", page 6.99

# Subracks - *europac* PRO ServicePLUS

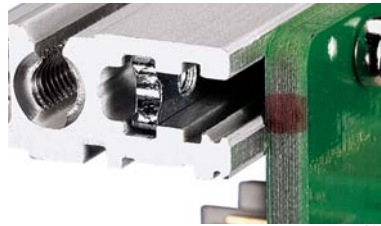
## Rear horizontal rails

Indirect backplane mounting  
(with insulation strip)



0440001

Direct backplane mounting



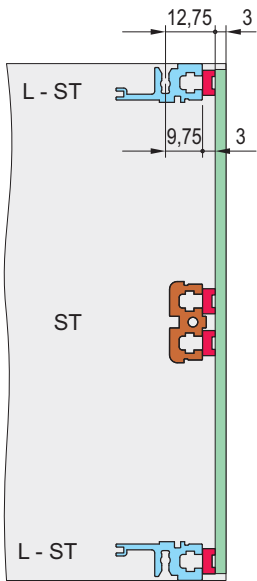
0440002

Connector fitting with Z

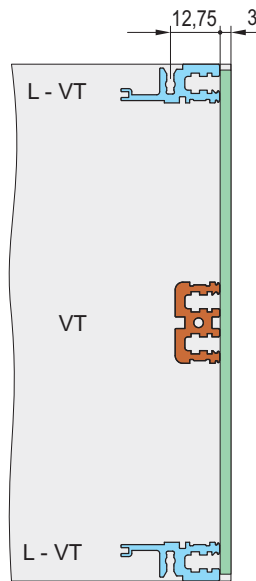


0440003

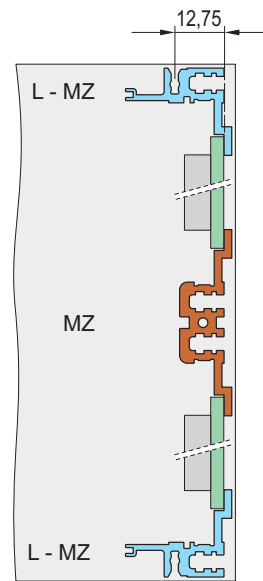
"light"



06105072

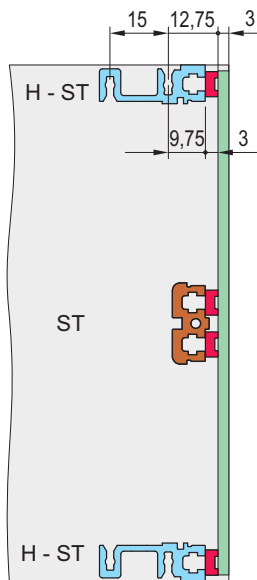


06105073

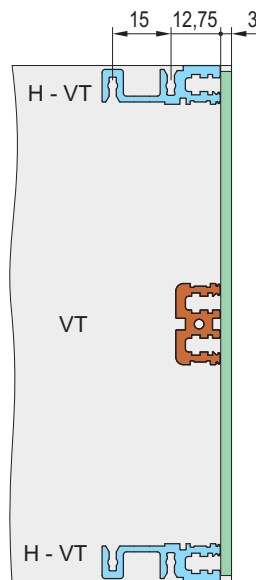


06105071

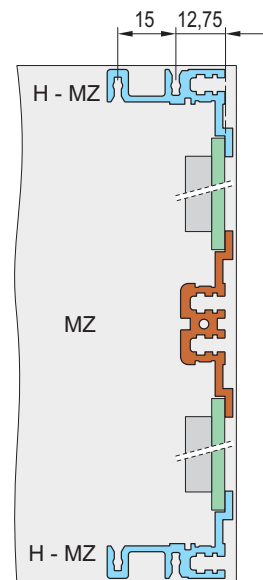
"heavy"



06108066



06108067



06108068

ST = standard, L = light, H = heavy

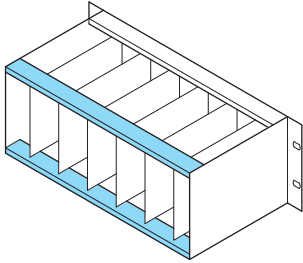






VT = depth-offset, L = light, H = heavy

MZ = with Z-rail, L = light, H = heavy

## Subracks - *europac* PRO ServicePLUS

### Rear horizontal rails, top and bottom

#### Order Information

 06105074 With HP markings from 28 HP, Al extrusion, anodised finish, conductive surface		For indirect backplane mounting with insulation strip		For direct backplane mounting		For direct fixing of connectors in accordance with EN 60603-2 (DIN 41612)			
		 "light" Type L-ST standard 06197010 Al extrusion, anodised surface, conductive contact surface, with printed HP markings 1 piece (SPQ 10) <sup>1)</sup>	 "heavy" Type H-ST standard 06197011 Al extrusion, anodised surface, conductive contact surface, with printed HP markings 1 piece (SPQ 10) <sup>1)</sup>	 "light" Type L-VT + 3 mm 06197011 Al extrusion, anodised surface, conductive contact surface, with printed HP markings 1 piece (SPQ 10) <sup>1)</sup>	 "heavy" Type H-VT + 3 mm 06197009 Al extrusion, anodised surface, conductive contact surface, with printed HP markings 1 piece (SPQ 10) <sup>1)</sup>	 "light" Type L-MZ with Z-rail 06197014 Al extrusion, anodised surface, conductive contact surface, with printed HP markings 1 piece (SPQ 10) <sup>1)</sup>	 "heavy" Type H-MZ with Z-rail 06197015 Al extrusion, anodised surface, conductive contact surface, with printed HP markings 1 piece (SPQ 10) <sup>1)</sup>		
Usable length HP	Length mm	20	106.68	34560-420	34560-520	34560-620	34560-720	34560-820	34560-920
28	147.32	34560-428	34560-528	34560-628	34560-728	34560-828	34560-928		
40	208.28	34560-440	34560-540	34560-640	34560-740	34560-840	34560-940		
42	218.44	34560-442	34560-542	34560-642	34560-742	34560-842	34560-942		
63	325.12	34560-463	34560-563	34560-663	34560-763	34560-863	34560-963		
84	431.80	34560-484	34560-584	34560-684	34560-784	34560-884	34560-984		
-	1000	34560-401	34560-501	34560-601	34560-701	34560-801	-		
Screw, M4 x 14, PU 100 pieces, for fastening horizontal rail to side panel		24560-130	24560-130	24560-130	24560-130	24560-130	24560-130		
Screw, M4 x 10, required if guide rails are screwed to slot 1, PU 100 pieces		-	24560-155	-	24560-155	-	24560-155		
Perforated rail for connector mounting with insulation strip see page		6.36	6.36	-	-	-	-		
Z-rail for connector mounting without insulation strip see page		6.36	6.36	-	-	-	-		
Insulation strips see page		6.35	6.35	-	-	-	-		
Threaded inserts see page		6.35	6.35	6.35	6.35	6.35	6.35		

<sup>1)</sup> SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple  
 "light": loading capacity up to approx. 7.5 kg; "heavy": loading capacity > 7.5 kg







#### Note

- 1000 mm version without M4 thread to front, without printed markings and without notch for 19"-bracket
- Rugged horizontal rails with 3 fixing holes see section "Rugged Subracks", page 6.99

Subracks - *europac* PRO ServicePLUS

Rear horizontal rails, centre, for 6 U

## Order Information

Usable length HP		Length mm	For indirect backplane mounting with insulation strip	For direct backplane mounting	For direct fixing of connectors in accordance with EN 60603-2 (DIN 41612)
			Typ ST	Typ VT	Typ MZ
			 04400001  06197016 Al extrusion, anodised surface, conductive contact surface, without printed markings	 04400002  06197017 Al extrusion, anodised surface, conductive contact surface, without printed markings	 04400003  06197018 Al extrusion, anodised surface, conductive contact surface, without printed markings
			1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>
20		106.68	<b>34561-020</b>	<b>34561-120</b>	<b>34561-220</b>
28		147.32	<b>34561-028</b>	<b>34561-128</b>	<b>34561-228</b>
40		208.28	<b>34561-040</b>	<b>34561-140</b>	<b>34561-240</b>
42		218.44	<b>34561-042</b>	<b>34561-142</b>	<b>34561-242</b>
63		325.12	<b>34561-063</b>	<b>34561-163</b>	<b>34561-263</b>
84		431.80	<b>34561-084</b>	<b>34561-184</b>	<b>34561-284</b>
-		1000	<b>34561-001</b>	<b>34561-101</b>	<b>34561-201</b>
Screw, M4 x 14, PU 100 pieces, for fastening horizontal rail to side panel			<b>24560-130</b>	<b>24560-130</b>	<b>24560-130</b>
Insulation strips see page			6.35	-	-
Threaded inserts see page			6.35	6.35	6.35

1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple

"light": loading capacity up to approx. 7.5 kg; "heavy": loading capacity > 7.5 kg

## Note

- All horizontal rails without printed markings
- 1000 mm version without M4 thread to front

## Horizontal rails (type AB) for rear I/O applications

### Order Information

06108069

**For CompactPCI in rear I/O area**

06108009

**Typ AB**

06197019

Al extrusion, anodised surface, conductive contact surface; horizontal rail type AB (AB = support) is required to fix the 80 mm rear I/O boards; without printed markings

Usable length HP	Length mm	1 piece (SPQ 10) <sup>1)</sup>
20	106.68	34561-520
28	147.32	34561-528
40	208.28	34561-540
42	218.44	34561-542
63	325.12	34561-563
84	431.80	34561-584
-	1000	34561-501
Screw, M4 x 14, PU 100 pieces, for fastening horizontal rail to side panel		24560-130

<sup>1)</sup> SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple  
 "light": loading capacity up to approx. 7.5 kg; "heavy": loading capacity > 7.5 kg

### Note

- All horizontal rails without printed markings
- 1000 mm version without M4 thread to front

**Subracks - *europac* PRO ServicePLUS**

**Threaded inserts, perforated strips, insulation strips**

**Order Information**

Usable length HP	Threaded insert			Perforated strip (item 1)		Insulation strip	
	Length mm	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	Length mm	1 piece (SPQ 10) <sup>1)</sup>	Length mm	PU 10 pieces
20	106.18	<b>34561-320</b>	-	106.48	<b>30845-189</b>	101.50	<b>24560-820</b>
28	146.82	<b>34561-328</b>	-	147.12	<b>30845-197</b>	144.20	<b>24560-828</b>
40	207.78	<b>34561-340</b>	-	208.08	<b>30845-209</b>	205.12	<b>24560-840</b>
42	217.94	<b>34561-342</b>	-	218.24	<b>30845-211</b>	210.40	<b>24560-842</b>
63	324.62	<b>34561-363</b>	-	324.92	<b>30845-232</b>	316.88	<b>24560-863</b>
84	431.30	<b>34561-384</b>	<b>34561-484</b>	431.60	<b>30845-253</b>	428.64	<b>24560-884</b>
196	1000.26	<b>34565-196</b>	-	1000.56	<b>34565-396</b>	-	-

**Accessories**

Grub screw M2.5 x 8, PU 100 pieces	<b>21100-276</b>	-	-	-	-
Grub screw M2.5 x 9, PU 100 pieces	-	-	-	<b>21101-359</b>	-
Grub screw M3 x 8, PU 100 pieces	-	<b>21100-646</b>	-	-	-

1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple

2) Part no. includes one packing unit (PU); delivery is exclusively made in PU

## Z-rails, perforated rails

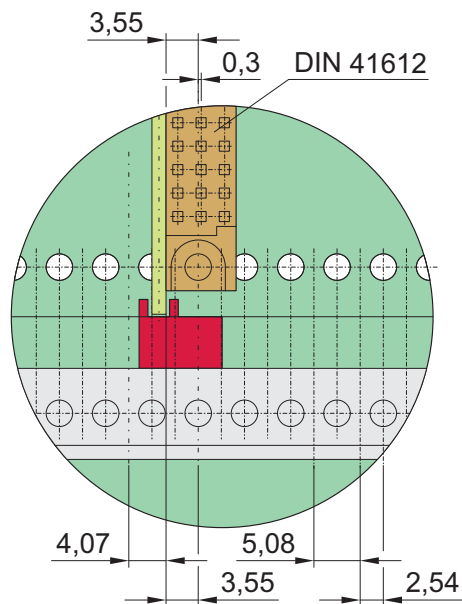
### Order Information

		Z-rail for connectors		Perforated rail
		DIN EN 60603-2, DIN 41612 item 1	31-pin, DIN 41617	EN 606032, DIN 41612 item 1
		 <p>for connector mounting on ST horizontal rails, please order threaded inserts and screw separately</p>	 <p>for connector mounting on ST horizontal rails, please order threaded inserts and screw separately</p>	 <p>for connector mounting on VT horizontal rails, please order threaded inserts and screw separately</p>
<b>Usable length</b>	<b>Length</b>	<b>1 piece</b>	<b>1 piece</b>	<b>PU 4 pieces</b>
<b>HP</b>	<b>mm</b>			
20	101.60	<b>30822-025</b>	-	<b>20822-051</b>
28	142.24	<b>30822-033</b>	-	<b>20822-049</b>
40	203.20	<b>30822-045</b>	<b>30819-763</b>	<b>20822-046</b>
42	213.36	<b>30822-047</b>	-	<b>20822-050</b>
60	304.80	<b>30822-065</b>	<b>30819-783</b>	<b>20822-047</b>
84	426.72	<b>30822-089</b>	<b>30819-808</b>	<b>20822-048</b>
Item 3, torx panhead screw to fix connector to perforated rail,, M2.5 × 7, PU 100 pieces		<b>24560-147</b>	<b>24560-147</b>	<b>24560-147</b>
Item 2, torx panhead screw, to fix perforated rails to horizontal rail, M2.5 × 10, PU 100 pieces		<b>24560-148</b>	<b>24560-148</b>	<b>24560-148</b>



Subracks - *europac* PRO ServicePLUS

## Guide rails



Front view: position of guide rails to connector [EN 60603-2/  
DIN 41612]

06108083

Guide rails form the interface between the subrack mechanics and the sub-assemblies (PCBs, plug-in units, frame-type plug-in units, ...).

Guide rails for standard applications are 2 HP wide. Guide rails with coding (e.g. for CompactPCI or VME64bus applications) are 4 HP wide.

There are groove widths of 2 mm and 2.5 mm.

The guide rails are clipped into the rectangular cut-outs of the horizontal rails. They can additionally be bolted to the horizontal rail (type H only) for higher shock and vibration requirements.

The printed HP markings on the horizontal rail (28 HP and above) allow the rails to be fitted in the correct position easily (position of sub-assembly = "number in viewing window" or in front of the arrow marking on the guide rails).

## Applications for guide rails



06102001



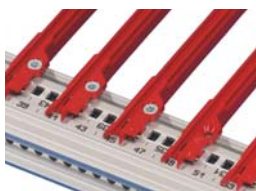
06102002



06102005



06106001



06104009



06112022

For plug-in units and frame-type plug-in units (with front panels) (standard type)

For plug-in units and frame type plug-in units or for PCBs without their own front panel (accessory type or robust version)

For CompactPCI or VME64x plug-in units (type IEEE with coding; frame-type plug-in units cannot be fitted)

For plug-in drive unit modules or PCBs in 4.4" (111.7 mm) height (type 4.4")

Rugged guide rails to accommodate conduction cooled assembly (CCA) adaptor

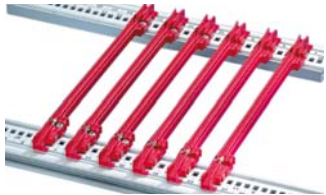
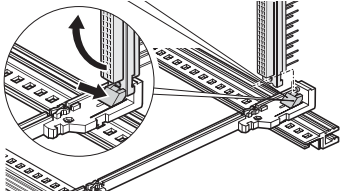
Accessories:

- ESD clip
- Keying/coding pegs
- Board locking

## Subracks - *europac* **PRO** ServicePLUS

Guide rails for plug-in units and modules, one-piece,  
groove width 2 mm and 2.5 mm

### Order Information

Assembly			For plug-in units and frame type plug-in units standard type			standard type, with DIN connector fixing		
<ul style="list-style-type: none"> <li>- can be clipped into Al extruded horizontal rails</li> <li>- can be clipped into 1.5 mm thick plates</li> </ul>			 <p>up to 220 mm length, PBT, UL 94 V-0; from 280 mm length, multi-piece, end piece PBT, UL 94 V-0, central section Al extrusion</p>			 <p>PBT, UL 94 V-0, red, connector is clipped directly onto the guide rails; for euroboards only, 100 x 160 mm or 100 x 220 mm</p>		
<b>Storage temperature</b> from -40 °C ... 130 °C								
Board length	Groove width	Colour						
mm	mm	mm	PU 10 pieces <sup>2)</sup>	1 piece (SPQ 50) <sup>1)</sup>		1 pair (SPQ 10) <sup>1)</sup>		
70	2	red	-	34579-230		-		
70	2	grey	-	34579-231		-		
160	2	red	24560-351	64560-001		64560-074		
220	2	red	24560-353	64560-002		64560-075		
280	2	red	24560-379	-		-		
340	2	red	24560-380	-		-		
160	2.5	red	-	64560-096		-		
220	2.5	red	-	64560-098		-		

### Accessories

Retention screw, PU 100 pieces; Torque max. 0.2 Nm	24560-141	-	24560-141
ESD clip, PU 50 pieces	24560-255		24560-255

<sup>1)</sup> SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple

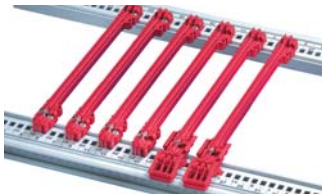
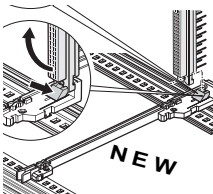
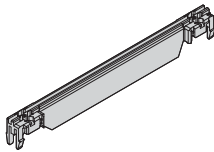

<sup>2)</sup> Part no. includes one packing unit (PU); delivery is exclusively made in PU

Description of accessories see from page 6.43


## Subracks - *europac* PRO ServicePLUS

Guide rails type "accessory", one-piece,  
groove width 2 mm and 2.5 mm

### Order Information

Assembly			accessory type		Guide rails "Accessories" with DIN connector mounting	accessory type, strengthened	for heavy modules, Al extrusion, silver, robust version
- can be clipped into Al extruded horizontal rails - can be clipped into 1.5 mm thick plates  <b>Storage temperature</b> from -40 °C ... +130 °C			 <p>up to 280 mm length, PBT, UL 94 V-0; &gt; 280 mm length, multi-piece, end piece PBT, UL 94 V-0, middle section Al extrusion</p>		 <p>PBT, UL 94 V-0, connector is bolted directly onto the guide rails, only suitable for euroboards 100 x 160 mm or 100 x 220 mm</p>	 <p>PBT UL 94 V-0, red; support beam of guide rails adds to strengthening</p>	 <p>Al extrusion; is screwed to horizontal rail "heavy" with retention screws</p>
Board length mm	Groove width mm	Colour	PU 10 pieces <sup>2)</sup>	1 piece (SPQ 50)	PU 10 pairs <sup>2)</sup>	1 piece (SPQ 50)	1 piece (SPQ 10) <sup>1)</sup>
100	2	red	-	<b>64560-082</b>	-	-	-
160	2	red	<b>24560-373</b>	<b>64560-005</b>	24560-274	<b>64560-076</b>	-
160	2	grey/silver	-	<b>64560-055</b>	24560-276	-	<b>34562-881</b>
220	2	red	<b>24560-374</b>	<b>64560-006</b>	24560-275	<b>64560-078</b>	-
220	2	grey/silver	-	<b>64560-166</b>	24560-277	-	<b>34562-882</b>
280	2	red/silver	<b>24560-375</b>	-	-	<b>64560-080</b>	<b>34562-883</b>
340	2	red/silver	<b>24560-376</b>	-	-	-	<b>34562-884</b>
400	2	red/silver	-	-	-	-	<b>34562-885</b>
160	2.5	silver	-	-	-	-	<b>34564-881</b>
220	2.5	silver	-	-	-	-	<b>34564-882</b>
280	2.5	silver	-	-	-	-	<b>34564-883</b>
340	2.5	silver	-	-	-	-	<b>34564-884</b>
400	2.5	silver	-	-	-	-	<b>34564-885</b>

### Accessories

Retention screw, PU 100 pieces; torque max. 0.2 Nm		<b>24560-141</b>	<b>24560-141</b>	<b>24560-141</b>	<b>24560-141</b>	<b>24560-157</b>
ESD clip, PU 50 pieces		<b>24560-255</b>	<b>24560-255</b>	<b>24560-255</b>	<b>24560-255</b>	-
Board locking, red, PU 10 pieces		<b>24560-377</b>	<b>24560-377</b>	<b>24560-377</b>	<b>24560-377</b>	-
Board handle, red, PU 10 pieces		<b>24560-378</b>	<b>24560-378</b>	<b>24560-378</b>	<b>24560-378</b>	-
Identification strips for board handle, red, PU 1 sheet = 438 pieces		<b>60817-228</b>	<b>60817-228</b>	<b>60817-228</b>	<b>60817-228</b>	-
Coding see page			6.43			-

1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple

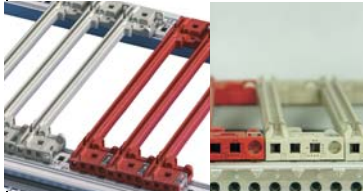
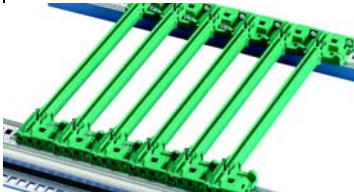
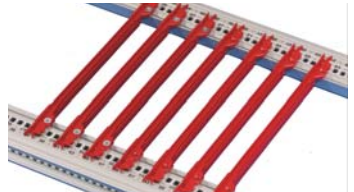
2) Part no. includes one packing unit (PU); delivery is exclusively made in PU

Description of accessories see from page 6.43

## Subracks - *europac* PRO ServicePLUS

Guide rails for CompactPCI, VME64x with coding,  
4.4" PCBs, groove width 2 mm and 2.5 mm

### Order Information

Assembly			For CompactPCI, VME64x with coding		Offset 0.1" for power supply units		For 4.4" PCBs	
- can be clipped into Al extruded horizontal rails - can be clipped into 1.5 mm thick plates			In accordance with IEEE 1101.10 and IEC 60297-3-103		in accordance with IEEE 1101.10 and IEC 60297-3-103			
Storage temperature from -40 °C ... 130 °C								
			One-piece for groove width 2 mm, PBT, UL 94 V-0; multi-piece at groove width 2,5 mm, end-piece PBT, UL 94 V-0, center piece Al		PBT, UL 94 V-0, for installation of power supplies in CompactPCI systems or plug-in units with SMD placement		One-piece, PBT, UL 94 V-0; for 4.4" PCBs or drive unit modules	
Board length mm	Groove width mm	Colour mm	PU 10 pieces	1 piece (SPQ 50) <sup>1)</sup>	PU 10 pieces	1 piece (SPQ 50) <sup>1)</sup>	PU 10 pieces	1 piece (SPQ 50) <sup>1)</sup>
70	2	red	24560-355	64560-085	-	-	-	-
70	2	grey	24560-360	64560-086	-	-	-	-
160	2	red	24560-356	64560-089	-	-	24560-361	64560-143
160	2	grey	24560-358	64560-090	-	-	-	-
160	2	green	-	-	24560-359	64560-071	-	-
220	2	red	-	64560-091	-	-	24560-362	64560-144
220	2	grey	-	64560-092	-	-	-	-
220	2	green	-	-	-	64560-072	-	-
160	2.5	red	-	-	-	-	-	64560-145
220	2.5	red	24561-330	-	-	-	-	64560-146
220	2.5	grey	24561-340	-	-	-	-	-
280	2.5	red	24561-331	-	-	-	-	-
280	2.5	grey	24561-341	-	-	-	-	-
340	2.5	red	24561-332	-	-	-	-	-
340	2.5	grey	24561-342	-	-	-	-	-

### Accessories

ESD clip, PU 50 pieces	24560-255	24560-255	-	-	-	-
ESD clips, for alignment pin, PU 50 pieces	24560-256	24560-256	24560-256	24560-256	-	-
Retention screw, PU 100 pieces; torque max. 0.2 Nm	24560-141	24560-141	24560-141	24560-141	24560-158	24560-158
Coding peg, PU 100 pieces	20817-501	20817-501	20817-501	20817-501	-	-

1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple




2) Part no. includes one packing unit (PU); delivery is exclusively made in PU

Description of accessories see from page 6.43

Subracks - *europac* **PRO**ServicePLUS

## Guide rails, multi-piece, groove width 2 mm

## Order Information

PCBs: Fixed lengths for 160, 220, 280, 340 mm; length 1000 mm for special dimensions  Mounting: pluggable into horizontal rails  Storage temperature : End piece -40°C ... +130°C PVC profile 0°C ... +60°C			For plug-in units and modules standard type		Accessories type		For 4.4" PCBs	
Description	Length mm	Groove width mm	 06106004 end piece, PBT, UL 94 V-0, middle section Al extrusion		 06106005 end piece, PBT, UL 94 V-0, middle section Al extrusion		 06106006 end piece, PBT, UL 94 V-0, middle section Al extrusion	
			1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>
End piece, red, 1 pair		2	<b>64560-004</b>	<b>64560-004</b>	<b>64560-008</b>	<b>64560-008</b>	<b>64560-057</b>	<b>64560-057</b>
Al extrusion, for 160 mm board length	95	2	<b>34560-891</b>	<b>34564-891</b>	<b>34560-891</b>	<b>34564-891</b>	<b>34560-891</b>	<b>34564-891</b>
Al extrusion, for 220 mm board length	155	2	<b>34560-892</b>	<b>34564-892</b>	<b>34560-892</b>	<b>34564-892</b>	<b>34560-892</b>	<b>34564-892</b>
Al extrusion, for 280 mm board length	215	2	<b>34560-893</b>	<b>34564-893</b>	<b>34560-893</b>	<b>34564-893</b>	<b>34560-893</b>	<b>34564-893</b>
Al extrusion, for 340 mm board length	275	2	<b>34560-894</b>	-	<b>34560-894</b>	-	<b>34560-894</b>	-
Al extrusion, for any board length	1000	2	<b>34560-900</b>	-	<b>34560-900</b>	-	<b>34560-900</b>	-
Plastic extrusion, for any board length	1000	2	-	<b>34564-900</b>	-	<b>34564-900</b>	-	<b>34564-900</b>

## Accessories

ESD clip, PU 50 pieces	<b>24560-255</b>	<b>24560-255</b>	<b>24560-255</b>	<b>24560-255</b>	-	-
Retention screw, PU 100 pieces; torque max. 0.2 Nm	<b>24560-141</b>	<b>24560-141</b>	<b>24560-141</b>	<b>24560-141</b>	<b>24560-158</b>	<b>24560-158</b>
Board locking, red, PU 10 pieces	-	-	<b>24560-377</b>	<b>24560-377</b>	-	-
Board handle, red, PU 10 pieces	-	-	<b>24560-378</b>	<b>24560-378</b>	-	-
Identification strips for board handle, red, PU 1 sheet = 438 pieces	-	-	<b>60817-228</b>	<b>60817-228</b>	-	-
Coding see page	-	-	see page 6.43		-	-

1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple

2) Part no. includes one packing unit (PU); delivery is exclusively made in PU

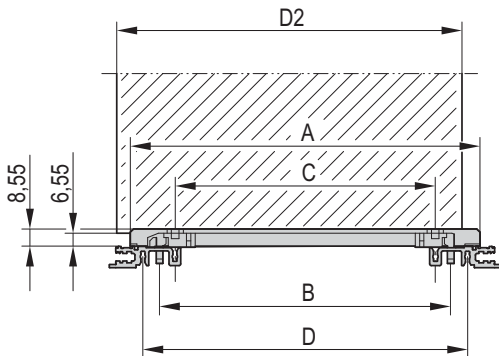
Description of accessories see from page 6.43

## Note

- Strengthening for middle section (plastic extrusion) available on request

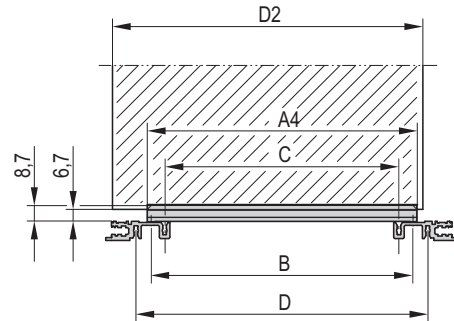
## Dimension drawings of guide rails

Standard



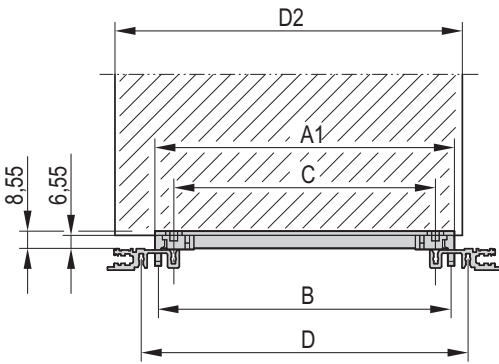
bza45808

Robust version



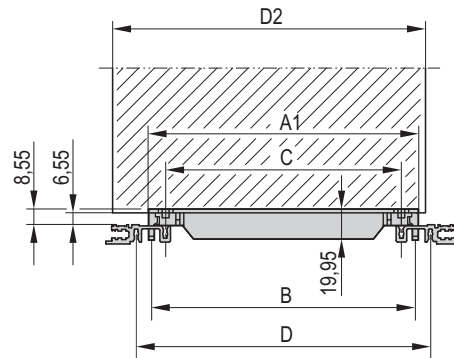
06105074

For accessories



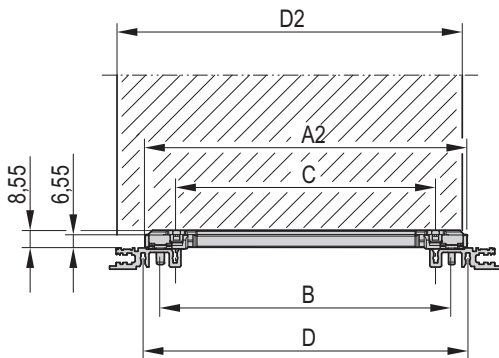
bza45808

For accessories, strengthened



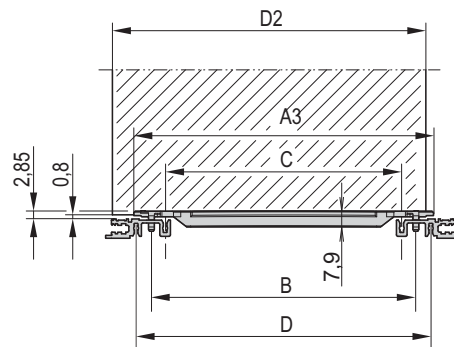
bza46552

CompactPCI, VME64x



06105068

4.4" (111.7 mm)



06105069

### Dimensions table

Board length	Dimensions							
	A	A1	A2	A3	A4	B	C	D
L	mm	mm	mm	mm	mm	mm	mm	mm
70	71.5	47.9	59.39	63	49	45	30	60
100	101.5	77.9	89.39	93	79	75	60	90
160	161.5	137.9	149.39	153	139	135	120	150
220	221.5	197.9	209.39	213	199	195	180	210
280	281.5	257.9	269.39	273	259	255	240	270
340	341.5	317.9	322.39	333	319	315	300	330
400	401.5	377.9	389.39	393	379	375	360	390

A, A1, A2, A3, A4: Length of rail

B: Pitch of snap-in fixing

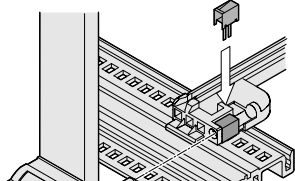
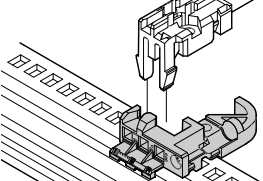
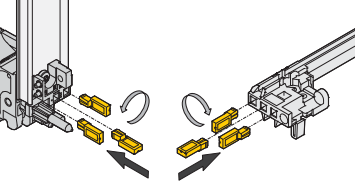
C: Pitch of guide rail retention screws

D: Pitch of horizontal rail retention screws

**Subracks - europac PRO ServicePLUS**

**Guide rail accessories**

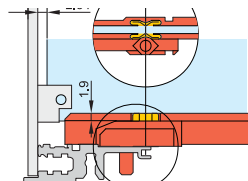
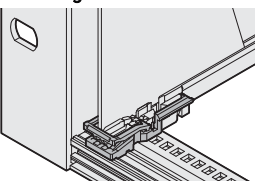
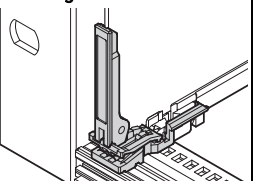
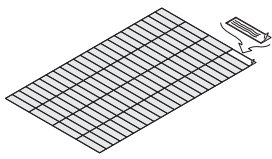
**Order Information**

		ESD clips, CompactPCI/VME 64 alignment pin for guide rails	Coding for subracks	
		 06103052	Keying/coding block for guide rails accessory type  06103051	Keying/coding for CompactPCI, VME64x handles to IEEE 1011.10 and IEC 60297-3-103  04612052
		Spring steel, tin-plated, ESD clip, for alignment pin in accordance with IEEE; can be plugged into the guide rails with coding and into the keying/coding block; provides conductive contact between the alignment pin of the insertion/extractor handle (IEL or IET handle) and the horizontal rail	PBT, UL 94 V-0, keying/coding block is clipped into the horizontal rail next to the guide rail; please order keying/coding pegs separately	Keying/coding peg, PBTP, UL 94 V-0, RAL 7035 The keying/coding pegs prevent plug-in units to be mounted in wrong slots. They are inserted in the chambers of the codable card guides as well as in the insertion/extractor handles IEL or IET (4 possible positions), resulting in 64 codings per card guide; when coding the upper and lower card guide, 4096 codings will result;
Assembly	Colour	PU 50 pieces	1 piece (SPQ 50)	PU 100 pieces
above	red	-	<b>34579-232</b>	-
	grey	-	<b>34579-233</b>	<b>20817-501</b>
	silver	<b>24560-256</b>	-	-
below	red	-	<b>34579-234</b>	-
	grey	-	<b>34579-235</b>	<b>20817-501</b>
	silver	<b>24560-256</b>	-	-

1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple  
2) Part no. includes one packing unit (PU); delivery is exclusively made in PU

**Guide rail accessories**

**Order Information**

		ESD clips for guide rails	Board locking for PCBs without front panel; for accessory type guide rails	PCB handle for board locking; for accessory type guide rails	Identification strips
		 04503050	 04805050	 04805051	 06108076
		Spring steel, tin-plated, provides conductive contact between board and horizontal rail, on both the solder side and the component side	PBT, UL 94 V-0, red, to fix the PCB in the subrack (also slot 1), can also be used without board handle, minimum distance 3 HP	PBT, UL 94 V-0, red, insertion/extraction function with connection to board locking (also slot 1), mounting directly behind front panel (above and below), minimum distance 3 HP	Polyester film, 31 x 4 mm, self-adhesive, white/matt (1 A4 sheet contains 438 pieces)
Assembly	Colour	silver PU 50 pieces	red PU 10 pieces	red PU 10 pieces	white/matt 1 piece
above/below		<b>24560-255</b>	<b>24560-377</b>	<b>24560-378</b>	<b>60817-228</b>

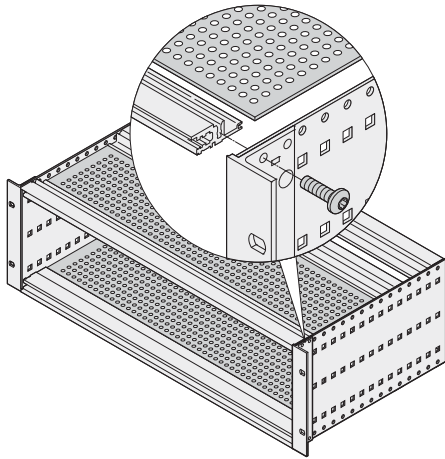
## Shielding for top and bottom

Cover plates can be used for electromagnetic shielding (with EMC contact springs) or as mechanical protection (without EMC springs)

### Cover plates for mechanical protection

- Cover plates are inserted into the grooves of the front and rear horizontal rails, type L "light"

see page 6.45



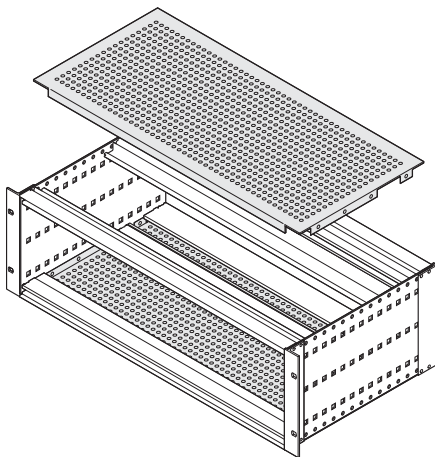
06108077

### Cover plates with EMC shielding and mechanical protection

#### EMC cover plates for top and bottom

- Inserted in the groove of the front and rear horizontal rails; shielding with contact springs, lateral contact by bolting the bracket to the side panel
- Used when standard-depth PCBs (160, 220, 280, ...) are fitted

see page 6.46



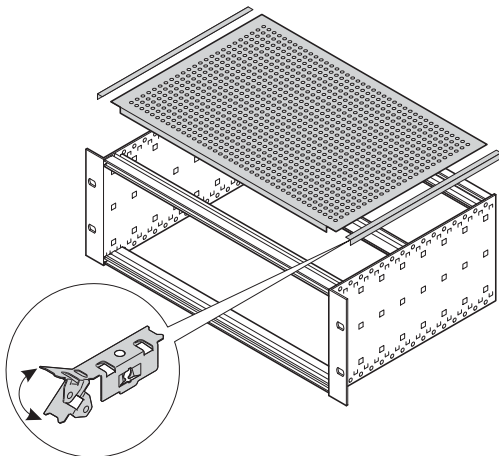
06102084

### Universal EMC cover plates for top and bottom

- Inserted in the groove of the front and rear horizontal rails; shielding with contact springs, lateral contact by bolting to the side panel with special contact springs

- Used when PCBs with special dimensions are fitted

see page 6.47



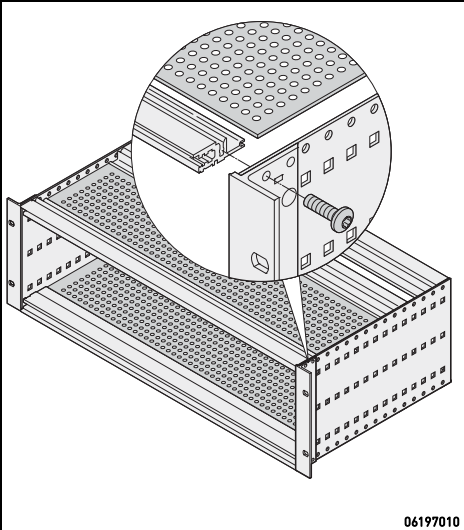
06105082



Subracks - *europac* **PRO** ServicePLUS

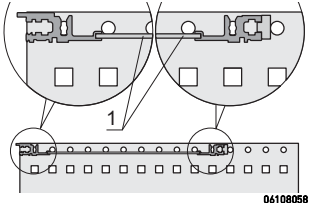
Cover plates for mechanical protection  
(insertion into horizontal rail type L)

Order Information



06197010

**Cover plates  
for insertion into  
horizontal rail type L**



06108058

Perforated Al plate, 1.2 mm,  
hole diameter 3.8 mm,  
Al, untreated,  
perforation degree 60 %;  
for insertion into the groove of the  
light horizontal rails (type L)

Width HP	Depth mm	Application	PU 1 pair
42	175	160 mm board depth	<b>24561-031</b>
63	175	160 mm board depth	<b>24561-041</b>
84	175	160 mm board depth	<b>24561-051</b>
84	235	220 mm board depth	<b>24561-052</b>

Note

- Other dimensions on request

## Subracks - *europac* PRO ServicePLUS

### EMC cover plates and mechanical protection

- Cover plate for bolting to side panel
- Used when standard-depth PCBs (160, 220, 280, ...) are fitted

#### Order Information

			<p><b>Cover plate for bolting to side panel</b></p> <p>Al, 1.0 mm, hole diameter 4.0 mm, passivated, perforation degree 58 %, incl. fixing screws; for shielding 4 stainless steel EMC gaskets are required per subrack</p> <p>06102082</p>		<p><b>Stainless steel EMC gasket, between cover plate and horizontal rail</b></p> <p>stainless steel EMC gasket, clips into the horizontal rail and forms the contact with the cover plate; suitable for all horizontal rails</p> <p>06106052</p>	
<b>Width</b>	<b>Depth</b>	<b>Application</b>				
<b>HP</b>	<b>mm</b>					
42	175	160 mm board depth	<b>PU 1 pair</b>		<b>PU 10 pieces</b>	<b>PU 100 pieces</b>
42	235	160, 220 mm board depth	24560-064		24560-241	-
42	275	160, 220 mm board depth CompactPCI (275 mm)	24560-065			
42	277.75	160, 220 mm board depth VME64x (277.75 mm)	24560-061			
42	295	160, 220, 280 mm board depth	24579-090			
42	295	160, 220, 280 mm board depth	24560-066			
63	175	160 mm board depth	24560-071		24560-243	-
63	235	160, 220 mm board depth	24560-072			
63	275	160, 220 mm board depth CompactPCI (275 mm)	24560-062			
63	295	160, 220, 280 mm board depth	24560-073			
84	175	160 mm board depth	24560-078		24560-245	24560-246
84	235	160, 220 mm board depth	24560-079			
84	275	160, 220 mm board depth CompactPCI (275 mm)	24560-063			
84	277.75	160, 220 mm board depth VME64x (277.75 mm)	24579-092			
84	295	160, 220, 280 mm board depth	24560-080			
84	355	160, 220, 280 mm board depth	24560-081			
84	415	160, 220, 280 mm board depth	24560-082			
84	475	160, 220, 280 mm board depth	24560-083			
Assembly tool, for EMC gasket, stainless steel (horizontal rails), 1 piece			-			

#### Note

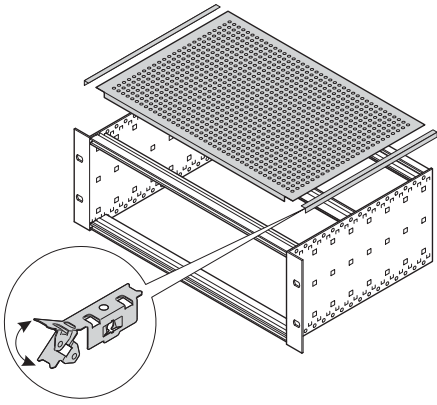
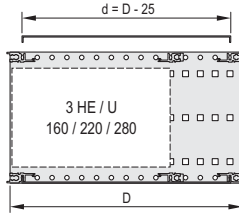
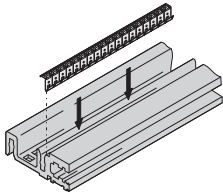
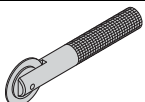
- Cover plates without perforation available on request

Subracks - *europac* **PRO**ServicePLUS

Universal EMC cover plates and mechanical protection

■ Used when PCBs with special dimensions are fitted

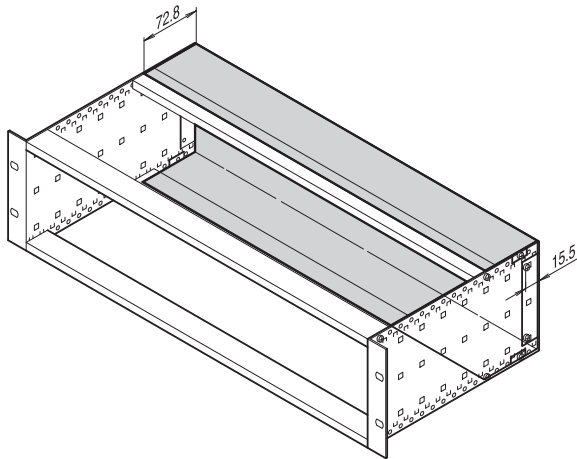
Order Information

 <p style="text-align: right;">06105082</p>		<p style="text-align: center;"><b>Universal cover plate</b></p>  <p style="text-align: right;">06108079</p> <p>Al, 1.0 mm, hole diameter 4.0 mm, passivated, perforation degree 58 %, incl. lateral EMC sealing, incl. fixing screws</p>		<p style="text-align: center;"><b>Stainless steel EMC gasket, between cover plate and horizontal rail</b></p>  <p style="text-align: right;">06106052</p> <p>stainless steel EMC gasket, clips into the horizontal rail and forms the contact with the cover plate; suitable for all horizontal rails</p>	
Width HP	Depth mm	Application	PU 1 pair	PU 10 pieces	PU 100 pieces
42	175	160 mm board depth	<b>24560-031</b>	<b>24560-241</b>	-
42	235	160, 220 mm board depth	<b>24560-032</b>		
42	295	160, 220, 280 mm board depth	<b>24560-033</b>		
63	175	160 mm board depth	<b>24560-041</b>	<b>24560-243</b>	-
63	235	160, 220 mm board depth	<b>24560-042</b>		
63	295	160, 220, 280 mm board depth	<b>24560-043</b>		
84	175	160 mm board depth	<b>24560-051</b>	<b>24560-245</b>	<b>24560-246</b>
84	235	160, 220 mm board depth	<b>24560-052</b>		
84	295	160, 220, 280 mm board depth	<b>24560-053</b>		
84	355	160, 220, 280 mm board depth	<b>24560-054</b>		
84	415	160, 220, 280 mm board depth	<b>24560-055</b>		
84	475	160, 220, 280 mm board depth	<b>24560-056</b>		
<p>Assembly tool, for EMC gasket, stainless steel (horizontal rails), 1 piece</p> 			-	<b>24560-271</b>	

## Subracks - *europac* PRO ServicePLUS

### Cover/shielding to front and rear

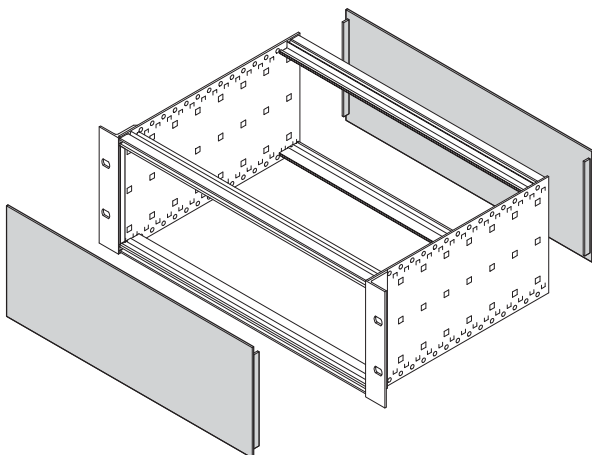
- The front and rear sides of the subrack can be shielded by a hinged front panel or by a fixed front panel and 19" brackets
- The rear can be shielded with a front panel and a corner profile



BZA45814

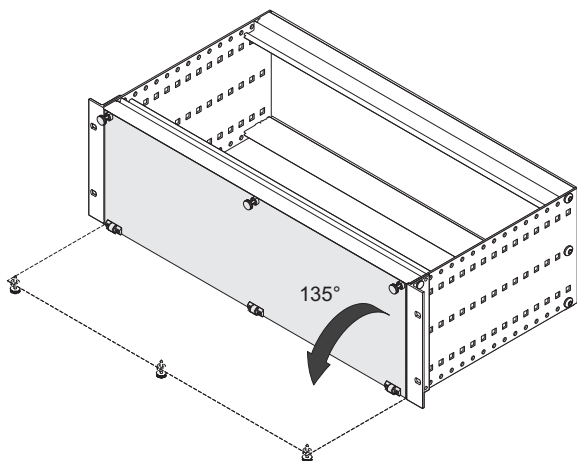
### Rear hood

### Front panel for front and rear



06112089

### Front panel, hinged/pivoted



06112090

Subracks - *europac* **PRO** ServicePLUS

Rear hood for 3 U and 6 U subracks  
(for stainless steel EMC gasket)

Order Information

	<p><b>Rear hood</b></p> <p>Al, 1 mm, clear passivated; 60 mm additional side panel depth required (board depth + 60 mm); for shielding please order EMC gasket for horizontal rail separately; cannot be used simultaneously with rear corner profile</p>	<p><b>Stainless steel EMC gasket, between cover plate and horizontal rail</b></p> <p>stainless steel EMC gasket, clips into the horizontal rail and forms the contact with the cover plate; suitable for all horizontal rails</p>																												
<table border="1"> <thead> <tr> <th>Height</th> <th>Width</th> </tr> <tr> <th>U</th> <th>HP</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>42</td> </tr> <tr> <td>3</td> <td>84</td> </tr> <tr> <td>6</td> <td>63</td> </tr> <tr> <td>6</td> <td>84</td> </tr> </tbody> </table>	Height	Width	U	HP	3	42	3	84	6	63	6	84	<table border="1"> <thead> <tr> <th>1 piece</th> <th>PU 10 pieces</th> <th>PU 100 pieces</th> </tr> </thead> <tbody> <tr> <td><b>34561-750</b></td> <td><b>24560-241</b></td> <td>-</td> </tr> <tr> <td><b>34561-752</b></td> <td><b>24560-245</b></td> <td><b>24560-246</b></td> </tr> <tr> <td><b>34561-763</b></td> <td><b>24560-243</b></td> <td>-</td> </tr> <tr> <td><b>34561-764</b></td> <td><b>24560-245</b></td> <td><b>24560-246</b></td> </tr> </tbody> </table>	1 piece	PU 10 pieces	PU 100 pieces	<b>34561-750</b>	<b>24560-241</b>	-	<b>34561-752</b>	<b>24560-245</b>	<b>24560-246</b>	<b>34561-763</b>	<b>24560-243</b>	-	<b>34561-764</b>	<b>24560-245</b>	<b>24560-246</b>		
Height	Width																													
U	HP																													
3	42																													
3	84																													
6	63																													
6	84																													
1 piece	PU 10 pieces	PU 100 pieces																												
<b>34561-750</b>	<b>24560-241</b>	-																												
<b>34561-752</b>	<b>24560-245</b>	<b>24560-246</b>																												
<b>34561-763</b>	<b>24560-243</b>	-																												
<b>34561-764</b>	<b>24560-245</b>	<b>24560-246</b>																												
<p>Torx panhead screw, M4 × 6, St, zinc-plated, PU 100 pieces</p>	<p><b>24560-135</b></p>	<p>-</p>																												
<p>Assembly tool, for EMC gasket, stainless steel (horizontal rails), 1 piece</p>	<p>-</p>	<p><b>24560-271</b></p>																												


**Note**

- Other dimensions of rear hood available on request

Front/rear panels, unshielded

## FRONT PANEL EXPRESS

### Order Information

 Height U      Height mm      Width HP      04292001			Front panel					
			pre-anodised, cut edges plain  Al, 2.5 mm		anodised  Al, 2.5 mm		Front anodised, rear iridescent green chromated Al, 2.5 mm	
			1 piece	1 piece (SPQ 5) <sup>1)</sup>	1 piece	1 piece (SPQ 5) <sup>1)</sup>	1 piece	1 piece (SPQ 5) <sup>1)</sup>
1	44.45	28	-	-	-	-	20850-423	-
1	44.45	42	-	-	-	-	20850-424	-
1	44.45	63	-	-	-	-	20850-425	-
1	44.45	84	-	-	-	-	20850-426	-
2	84.0	84	30818-271	-	30807-416	-	30847-461	-
3	128.4	2	-	30810-433	-	30810-432	-	30847-470
3	128.4	3	-	30818-272	-	30807-508	-	30847-471
3	128.4	4	-	30818-273	-	30807-481	-	30838-043
3	128.4	5	-	30818-274	-	30807-510	-	30838-044
3	128.4	6	-	30818-275	-	30807-482	-	30838-045
3	128.4	7	-	30818-276	-	30807-509	-	30838-046
3	128.4	8	-	30818-277	-	30807-484	-	30838-047
3	128.4	10	-	30818-279	-	30807-483	-	30838-049
3	128.4	12	-	30818-281	-	30807-485	-	30838-051
3	128.4	14	-	30818-282	-	30807-501	-	30838-053
3	128.4	21	-	30818-289	-	30807-487	-	30838-060
3	128.4	28	-	30818-296	-	30807-496	-	30838-067
3	128.4	42	30818-310	-	30807-494	-	30838-081	-
3	128.4	63	30818-331	-	30808-067	-	30838-102	-
3	128.4	84	30818-352	-	30807-506	-	30838-123	-
4	172.9	42	-	-	-	-	30847-463	-
4	172.9	63	-	-	-	-	30847-464	-
4	172.9	84	30818-434	-	30807-596	-	30847-465	-
6	261.8	2	-	30818-747	-	30818-741	-	30847-472
6	261.8	4	-	30818-518	-	-	-	30838-124
6	261.8	5	-	-	-	-	-	30838-125
6	261.8	6	-	-	-	-	-	30838-126
6	261.8	7	-	-	-	-	-	30838-127
6	261.8	8	-	30818-522	-	-	-	30838-128
6	261.8	10	-	30818-524	-	30807-753	-	30838-130
6	261.8	12	-	30818-526	-	-	-	30838-132
6	261.8	14	-	30818-528	-	30807-758	-	30838-134
6	261.8	16	-	30818-530	-	-	-	30838-136
6	261.8	21	-	30818-535	-	30807-757	-	30838-141
6	261.8	28	-	30818-542	-	30807-766	-	30838-148
6	261.8	42	30818-556	-	30807-764	-	30838-162	-
6	261.8	63	30818-577	-	30807-771	-	30838-183	-
6	261.8	84	30818-598	-	30807-776	-	30838-204	-
9	395.1	4	-	-	-	-	-	30847-476
9	395.1	8	-	-	-	-	-	30847-480
9	395.1	10	-	-	-	-	-	30847-482
9	395.1	12	-	-	-	-	-	30847-484
9	395.1	84	-	-	-	-	30847-556	-

■ Front panel assembly kits, sleeves, collar screws, quick-release fasteners see page 6.65


1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple

Subracks - *europac* **PRO**ServicePLUS

Front/rear panels shieldable with stainless steel EMC gasket

**FRONT PANEL**  
*EXPRESS*

## Order Information

 04292001			Front panel			
			Front panel for shielding with EMC gasket (stainless steel)		Stainless steel EMC gasket	
Height U	Height mm	Width HP	Al, 2.5 mm, front anodized, rear iridescent green chromated, 2 alignment pins pressed-in, St, stainless		inserted laterally into the grooves of the front panel, suited for temperatures above 70 °C	
			1 piece	1 piece (SPQ 5) <sup>1)</sup>	PU 10 pieces	PU 100 pieces
2	84	84	<b>30846-588</b>	-	<b>21101-775</b>	<b>21101-776</b>
3	128.4	2	-	<b>30846-864</b>	<b>21101-705</b>	<b>21101-706</b>
3	128.4	3	-	<b>20846-425</b>		
3	128.4	4	-	<b>20846-426</b>		
3	128.4	5	-	<b>20846-427</b>		
3	128.4	6	-	<b>20846-428</b>		
3	128.4	7	-	<b>20846-429</b>		
3	128.4	8	-	<b>20846-430</b>		
3	128.4	10	-	<b>20846-431</b>		
3	128.4	12	-	<b>20846-432</b>		
3	128.4	14	-	<b>20846-433</b>		
3	128.4	21	-	<b>20846-434</b>		
3	128.4	28	-	<b>20846-436</b>		
3	128.4	42	<b>20846-437</b>	-		
3	128.4	63	<b>20846-438</b>	-		
3	128.4	84	<b>30846-676</b>	-		
4	172.9	42	<b>30846-681</b>	-	<b>21101-713</b>	<b>21101-714</b>
4	172.9	63	<b>30846-682</b>	-		
4	172.9	84	<b>30846-683</b>	-		
6	261.8	2	-	<b>30846-865</b>	<b>21101-707</b>	<b>21101-708</b>
6	261.8	4	-	<b>20846-443</b>		
6	261.8	5	-	<b>20846-444</b>		
6	261.8	6	-	<b>20846-445</b>		
6	261.8	7	-	<b>20846-446</b>		
6	261.8	8	-	<b>20846-447</b>		
6	261.8	10	-	<b>20846-448</b>		
6	261.8	12	-	<b>20846-449</b>		
6	261.8	14	-	<b>20846-450</b>		
6	261.8	16	-	<b>20846-456</b>		
6	261.8	21	-	<b>20846-451</b>		
6	261.8	28	-	<b>20846-452</b>		
6	261.8	42	<b>20846-453</b>	-		
6	261.8	63	<b>20846-454</b>	-		
6	261.8	84	<b>30846-771</b>	-		
9	395.1	84	<b>30846-859</b>	-	<b>21101-709</b>	<b>21101-710</b>
Assembly tool, for stainless steel EMC gasket					<b>24560-270</b>	

■ Front panel assembly kits, sleeves, collar screws, quick-release fasteners see page 6.65


1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple

## Subracks - *europac*PROServicePLUS

Front/rear panels shieldable with textile EMC gasket

### FRONT PANEL *EXPRESS*

#### Order Information

 Height U      Height mm      Width HP			Front panel			
			Front panel for shielding with EMC sealing (textile)		Textile EMC gasket	
04292001			Al extrusion, 2.5 mm, front anodised, rear conductive; 3, 6 U with alignment pin (not 84 HP)		textile gasket, core: foam, sleeve: textile cladding with CuNi coating, UL 94 V-0	
			1 piece	1 piece (SPQ 5) <sup>1)</sup>	PU 10 pieces	PU 100 pieces
2	84	84	20848-262	-	-	21101-856
3	128.4	2	-	30849-001	21101-853	21101-854
3	128.4	3	-	30849-004		
3	128.4	4	-	30848-354		
3	128.4	5	-	30848-378		
3	128.4	6	-	30848-380		
3	128.4	7	-	30848-382		
3	128.4	8	-	30848-356		
3	128.4	10	-	30848-386		
3	128.4	12	-	30848-358		
3	128.4	14	-	20848-013		
3	128.4	21	-	20848-020		
3	128.4	28	-	20848-027		
3	128.4	42	20848-047	-		
3	128.4	63	20848-068	-		
3	128.4	84	20848-097	-		
4	172.9	28	-	20848-268	21101-858	-
4	172.9	42	20848-269	-		
4	172.9	63	20848-270	-		
4	172.9	84	20848-271	-		
6	261.8	2	-	30849-002	21101-855	21101-856
6	261.8	4	-	30848-355		
6	261.8	5	-	30848-379		
6	261.8	6	-	30848-381		
6	261.8	7	-	30848-383		
6	261.8	8	-	30848-357		
6	261.8	10	-	30848-387		
6	261.8	12	-	30848-359		
6	261.8	14	-	20848-106		
6	261.8	16	-	20848-108		
6	261.8	21	-	20848-113		
6	261.8	28	-	20848-120		
6	261.8	42	20848-139	-		
6	261.8	63	20848-160	-		
6	261.8	84	20848-189	-		
9	395.1	84	20848-280	-	21101-859	21101-904

■ Front panel assembly kits, sleeves, collar screws, quick-release fasteners see page 6.65



1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple



Subracks - *europac* **PRO** ServicePLUS

Front panels, hinged and pivoted

Order Information

		Front panel, bottom-hinged		Front panel, pivoted
		shielded	unshielded	
				
		04295001		04295002
		Al, 2.5 mm, front anodised, rear iridescent green chromated; hinge, Zn die-cast, nickel-plated; 2 x sleeve, PA; 2 x knurled screws M2.5 x 12.3, St, nickel-plated; 1 x textile EMC gasket	Al, 2.5 mm, anodised, cut edges plain; hinge, Zn die-cast, nickel-plated; 2 x sleeve, PA; 2 knurled screws M2.5 x 12.3, St, nickel-plated	Al, 2.5 mm, front anodised, rear iridescent green chromated; hinge, die-cast zinc, chrome-plated; textile EMC gasket
Height	Width	1 piece		1 piece
U	HP	1 piece		1 piece
3	28	<b>20848-608</b>	<b>20838-280</b>	-
3	42	<b>20848-599</b>	<b>20838-271</b>	-
3	63	<b>20848-600</b>	<b>20838-272</b>	-
3	84	<b>20848-601</b>	<b>20838-273</b>	<b>20848-611</b>
4	42	<b>20848-605</b>	<b>20838-277</b>	-
4	63	<b>20848-606</b>	<b>20838-278</b>	-
4	84	<b>20848-607</b>	<b>20838-279</b>	-
6	28	<b>20848-696</b>	-	-
6	42	<b>20848-602</b>	<b>20838-274</b>	-
6	63	<b>20848-603</b>	<b>20838-275</b>	-
6	84	<b>20848-604</b>	<b>20838-276</b>	<b>20848-617</b>

Note

- Front panel can be removed in opened position (> 135°)

Shielding is required between the following components of a subrack

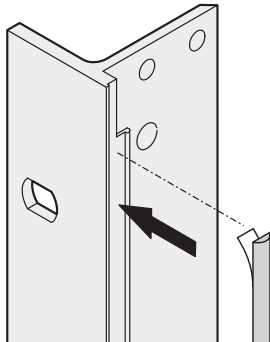
- Front panel/rear panel and horizontal rail, see page 6.55
- Front panel and 19" bracket/corner profile or in case of depth-offset installation, see page 6.55
- Cover plate/horizontal rail, see page 6.44
- Cover plate/side panel, see from page 6.44
- Horizontal rail/horizontal rail in combined mounting (3 U + 3 U and 6 U), see page 6.59
- Shielding for backplane and side panel see page 6.55

### EMC shielding concepts

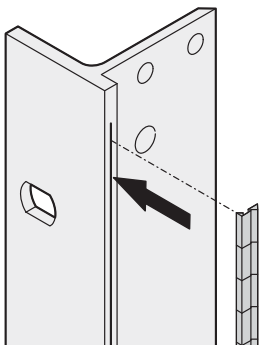
- Shielding concepts in accordance with IEEE and IEC
- Shielding effectiveness has been determined in various series of measurements in accordance with IEC 61587-3 and can be found online together with the relevant standard product
- The combined use of stainless steel and textile EMC gaskets is functionally possible without any problems

### EMC shielding concept with EMC textile gaskets

- The seal is affixed to the left-hand side of the subrack (viewed from front) or to the front panel profile, respectively
- An EMC gasket with CuNi coating assures a long-term high level of shielding, typically 40 dB at 2 GHz
- Temperature-resistant adhesive layer is protected by a removable film
- Rear shielding is obtained using front panels or a rear hood
- Temperature range  $-40^{\circ}\text{C} \dots +70^{\circ}\text{C}$
- **Note:** rear hood and corner profile cannot be used simultaneously



06108073



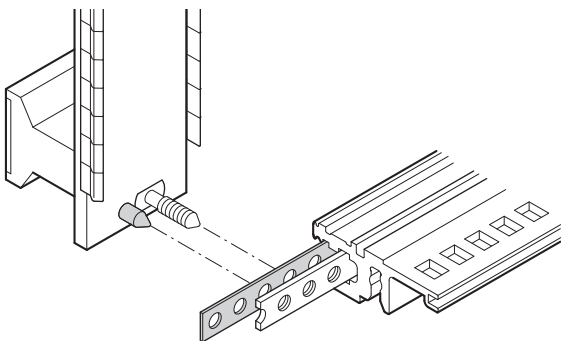
06108074

### EMC shielding concept with stainless steel EMC gaskets)

- Symmetrical arrangement of EMC gaskets on the left and right hand sides of subrack and front panel
- Shielding: typically 40 dB at 2 GHz
- Can be used for temperatures above  $+70^{\circ}\text{C}$
- **Note:** rear hood and corner profile cannot be used simultaneously

### Front panel shielding concept

- Front panels are available for textile or stainless steel EMC gasket options
- Alignment pins are pressed-in in the front panel to position the gaskets securely and to compress them evenly
- An alignment pin positions the perforated strip in the horizontal rail
- Alignment pin and perforated strip provide an optimal positioning of the shielded assemblies; the front panels are not forced sideways by the shielding elements (Schroff patent)

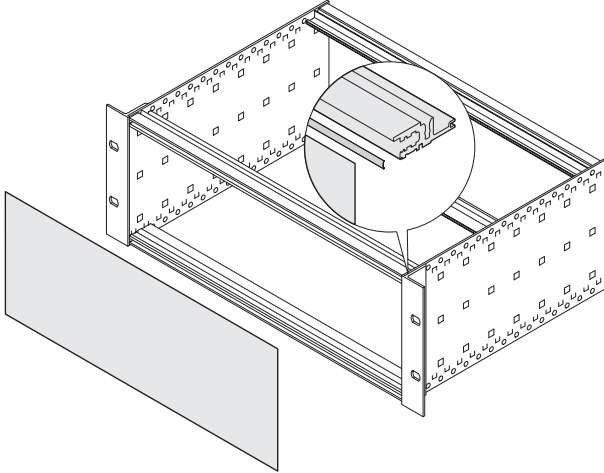


06112091

Subracks - *europac* **PRO**ServicePLUS

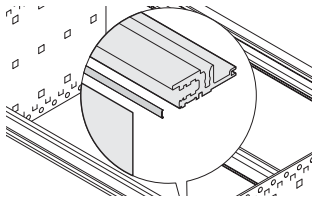
EMC gaskets between front/rear panel and horizontal rail

Order Information



06102053

**Stainless steel EMC gasket**  
between front panel/rear panel and horizontal rail



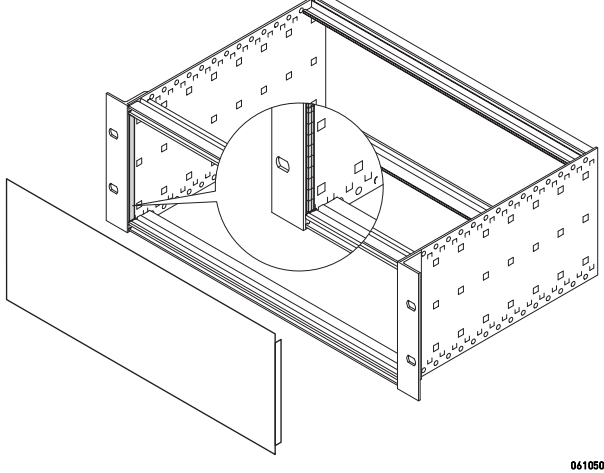
06102053

stainless steel; for front and rear horizontal rails (type VT)

	Width HP	Depth mm	PU 10 pieces	PU 100 pieces
	28	131.8	<b>24560-229</b>	-
	42	202.9	<b>24560-231</b>	-
	63	304.5	<b>24560-233</b>	-
	84	416.6	<b>24560-235</b>	<b>24560-236</b>

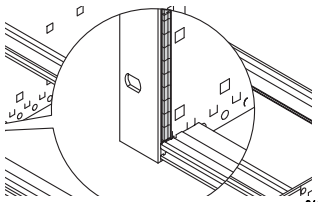
EMC gaskets between front panel and 19" bracket/corner profile

Order Information

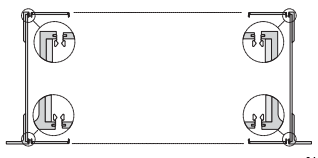


06105077

**Stainless steel EMC gasket**  
between front panel/rear panel and  
19" bracket/corner profile



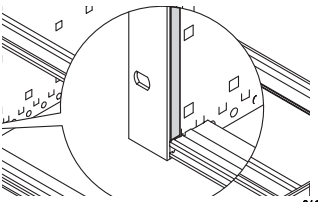
06105077



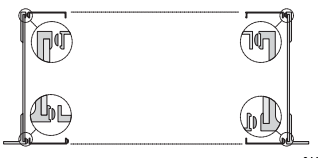
inserted laterally into the grooves  
of the front panel

06108070

**Textile EMC gasket**  
between front panel/rear panel and  
19" bracket/corner profile



06102056

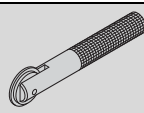


textile gasket, core: foam,  
sleeve: textile cladding with CuNi coating,  
UL 94 V-0

06108054

	Height U	Depth mm	PU 10 pieces	PU 100 pieces	PU 10 pieces	PU 100 pieces
	3	97.5	<b>21101-705</b>	<b>21101-706</b>	<b>21101-853</b>	<b>21101-854</b>
	4	142.5	<b>21101-713</b>	<b>21101-714</b>	<b>21101-858</b>	-
	6	232.5	<b>21101-707</b>	<b>21101-708</b>	<b>21101-855</b>	<b>21101-856</b>
	9	365.0	<b>21101-709</b>	<b>21101-710</b>	<b>21101-859</b>	<b>21101-904</b>

Assembly tool, for stainless steel EMC gasket



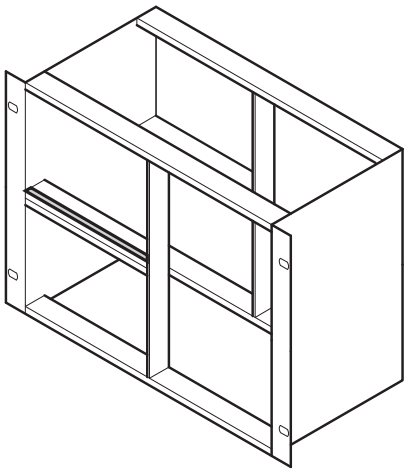
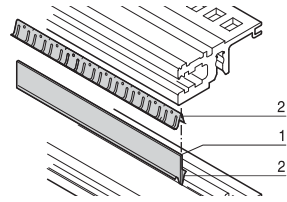
**24560-270**

-

## Subracks - *europac* PRO ServicePLUS

### EMC gaskets between horizontal rail and horizontal rail


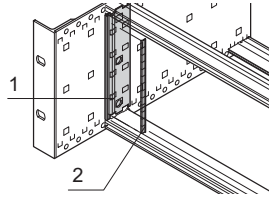
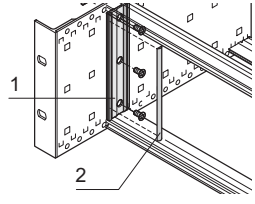
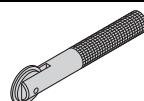
#### Order Information

		<p align="center"><b>Stainless steel EMC gasket between horizontal rail and horizontal rail</b></p>  <p align="center">Item 1: cover strip, Al, 1 mm, item 2: 2 x EMC seals (stainless steel); for shielding of 2 horizontal rails positioned directly one above the other if assembly area is divided vertically</p>	
		<p align="right">bza45877</p>	
<b>Width HP</b>	<b>Depth mm</b>	<b>PU 1 kit</b>	
20	107.0	<b>24562-520</b>	
28	147.0	<b>24562-528</b>	
40	208.0	<b>24562-540</b>	
42	218.0	<b>24562-542</b>	
63	325.0	<b>24562-563</b>	
84	431.0	<b>24562-584</b>	

1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple

### EMC gaskets between front panel and side panel (depth-offset installation)

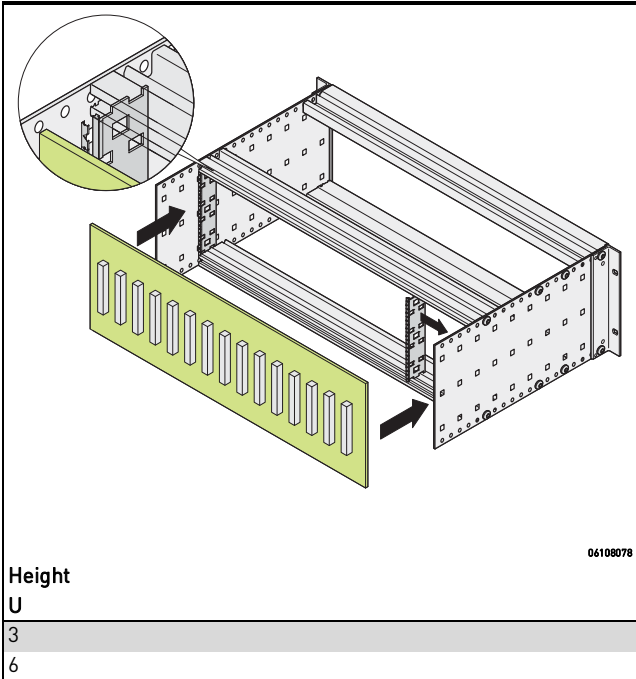
#### Order Information

		<p align="center"><b>Stainless steel EMC gasket between front panel and side panel (depth-offset installation)</b></p>  <p align="center">Item 1: 2 x support profiles, Al extrusion; item 2: 2 x stainless steel EMC gasket; fixing material kit for vertical EMC shielding between depth-offset shielded front panels and side panel</p>	<p align="center"><b>Textile EMC gasket between front panel and side panel (depth-offset installation)</b></p>  <p align="center">Item 1: 2 x support profiles, Al extrusion; item 2: 1 x EMC textile gasket; fixing material kit for vertical EMC shielding between depth-offset shielded front panels and side panel</p>
		bpa45884	06102058
<b>Height U</b>	<b>Depth mm</b>	<b>PU 1 kit</b>	<b>PU 1 kit</b>
3	97.5	<b>24562-199</b>	<b>24560-180</b>
4	142.5	<b>24562-299</b>	<b>24560-280</b>
6	187.5	<b>24562-499</b>	<b>24560-480</b>
<p>Assembly tool, for stainless steel EMC gasket</p> 		<b>24560-270</b>	-

Subracks - *europacPRO*ServicePLUS

EMC gaskets between backplane and side panel

Order Information



**Stainless steel EMC gasket  
between backplane and side panel (depth-offset installation)**

bpa45916

2 x support profile, Al extrusion,  
2 x EMC gasket (stainless steel)  
Fixing materials kit and user manual;  
for vertical EMC shielding between shielded backplane and side panel;

dimensions (84 HP):  
A = 425.8 mm,  
B < 429.9 mm,  
C = 429.8 mm,  
D = 431.8 mm

<b>Height</b>	<b>PU 1 kit</b>
<b>U</b>	<b>24561-199</b>
<b>3</b>	<b>24561-499</b>
<b>6</b>	<b>24561-499</b>

- With an appropriate design the backplane can be used as shielding rear panel; for that purpose a rear horizontal rail (type L-VT or H-VT) for depth-offset installation must be used to ensure the horizontal contact
- For vertical contact the support profile can be fixed to the europacPRO side panel (depth grid 30 mm)

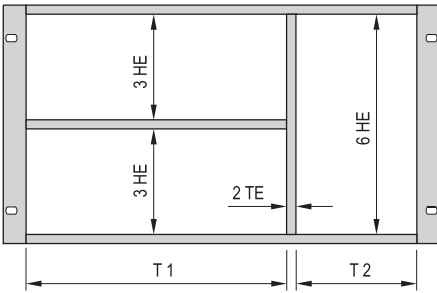
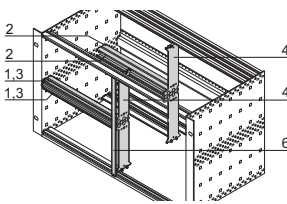
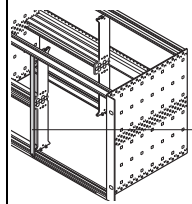
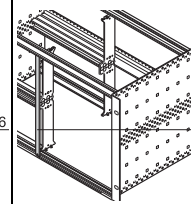
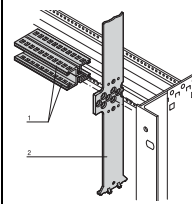
## Special interior mounting parts

- Combined mounting: 3 U + 3 U and 6 U, see page 6.59
- Horizontal board mounting, see page 6.60
- Mounting plates, see page 6.61
- Central locking for PCBs, see page 6.62
- Divider plates, see page 6.62
- Air baffles, see page 6.63
- Telescopic slides, see page 6.64
- Fixing parts (bolts, nuts, assembly tools), see page 6.63

Subracks - *europac* PRO ServicePLUS

## Combined mounting (6 U and 2 x 3 U one above the other)

## Order Information

	Combined mounting: horizontal and vertical subdivision (incl. front panel for stainless steel EMC gasket)		Alternative front panels for combined mounting		Splitting extrusion
					
<p>Item 1: 2 front horizontal rails (H-KD), Al extrusion, anodised; item 2: 2 rear horizontal rails (AB), Al extrusion, anodised; item 3: threaded inserts, St, zinc-plated; item 4: Zn die-cast support members; item 6: front panel 2 HP, 6 U, with EMC stainless steel gasket; 84:0 without items 4, 5</p> <p>Note see below 2)</p>	<p>Al, 2.5 mm, front anodised, rear iridescent green chromated</p>	<p>Al, 2.5 mm, U-profile with notch, 6 U, 2 HP</p>	<p>6 U, die-cast zinc; splitting extrusion is inserted in the grid holes of the horizontal rail; the splitting extrusion can be bolted</p>		
<p>Width pitch T1:T2</p>	<p>PU 1 kit</p>	<p>1 (SPQ 5)</p>	<p>1 piece (SPQ 5)<sup>1)</sup></p>	<p>1 piece</p>	
<p>HP</p>	<p><b>24562-420</b></p>	<p><b>30847-472</b></p>	<p><b>30849-140</b></p>	<p><b>64560-010</b></p>	
<p>20:62</p>	<p><b>24562-440</b></p>				
<p>40:42</p>	<p><b>24562-442</b></p>				
<p>42:40</p>	<p><b>24562-463</b></p>				
<p>63:19</p>	<p><b>24562-484</b></p>				
<p>84:0</p>					
<p>Torx countersunk screw M4 x 14, zinc-plated, PU 100 pieces to fix splitting extrusion/horizontal rail</p>	<p>-</p>	<p>-</p>	<p>-</p>	<p><b>24560-145</b></p>	
<p>Panhead screw M2.5 x 10, St, zinc-plated, PU 100 pieces to fix horizontal rail/splitting extrusion</p>	<p>-</p>	<p>-</p>	<p>-</p>	<p><b>24560-179</b></p>	
<p>Pozidrive/slotted collar screw M2.5 x 12.3, St, nickel-plated, PU 100 pieces</p>	<p>-</p>	<p><b>21101-101</b></p>	<p><b>21101-101</b></p>	<p>-</p>	
<p>Pozidrive/slotted collar screw M2.5, black, zinc-plated, PU 100 pieces</p>	<p>-</p>	<p><b>21101-102</b></p>	<p><b>21101-102</b></p>	<p>-</p>	
<p>Washer 2.7 x 5 x 1, PA 6, PU 100 pieces</p>	<p>-</p>	<p><b>21101-121</b></p>	<p><b>21101-121</b></p>	<p>-</p>	
<p>Textile gasket, core: foam, sleeve: textile cladding with CuNi coating, UL 94 V-0 PU 10 pieces</p>	<p>-</p>	<p>-</p>	<p><b>21101-855</b></p>	<p>-</p>	

2) The following guide rails cannot be used: type "accessory", type "accessory, strengthened" and type "for 4.4" PCB"

- Subdivision of the 6 U assembly area into:
  - 2 x 3 U
  - 1 x 6 U
- Designed to accommodate euroboards (100 mm high) and double euroboards (233.35 mm high)

## Note

- Please order EMC gasketing kit for horizontal rails separately, see page 6.56
- Please order perforated strips for horizontal rails separately, see page 6.35
- Please order rear centre horizontal rail separately, see page 6.33

## Subracks - *europac* PRO ServicePLUS

### Horizontal board mounting in 3 or 4 U subrack

#### Order Information

			Horizontal board mounting in 3 or 4 U subrack		
			Board cage	Front frame for EMC shielding	Front frame, unshielded
<p>(1 TE = 1 HP, 1 HE = 1 U)</p> <p>Height U</p> <p>Usable height h HP</p> <p>Mounting variants</p> <p>Horizontal rail, front</p> <p>Horizontal rail, rear</p>			<p>Struts, die-cast zinc; horizontal rails front and rear; threaded inserts, St, zinc-plated; fixing material kit; for horizontal mounting of double-height euroboards in 3 or 4 U high subracks/cases; 54 HP space required; <b>please order front frame for EMC shielding separately</b></p> <p>06102073</p>	<p>2 horizontal covers, Al 2.5 mm, front anodised, rear iridescent green chromated; 2 vertical trims, Al extrusion, passivated; stainless steel EMC gasket; front frame provides the contact between subrack and the sub-assemblies</p> <p>bpa45913</p>	<p>Al, 2.5 mm, clear anodised; front frame with cut-out, clear internal width w = 266.35 mm</p> <p>bza43061</p>
3	20		PU 1 kit	PU 1 kit	1 piece
3	20		24564-117	24564-109	34564-108
3	20		24564-118	24564-109	34564-109
4	28		24564-217	24564-209	34564-208
<p>Assembly tool, for stainless steel EMC gasket</p>			-	24560-270	-

\* For direct backplane mounting

#### Note

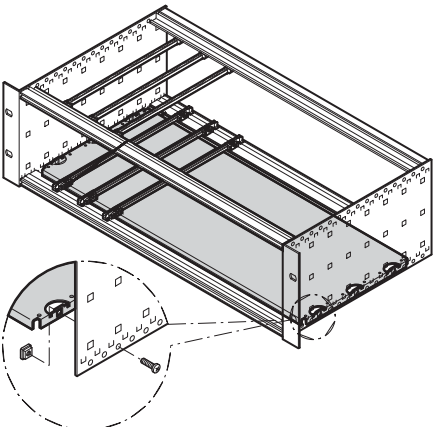
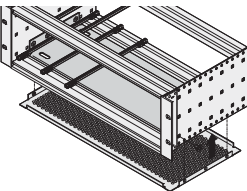
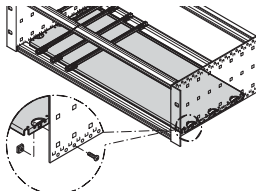
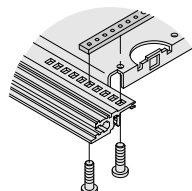
- Please order front frame for EMC shielding separately



Subracks - *europac* **PRO**ServicePLUS

Mounting plates

Order Information

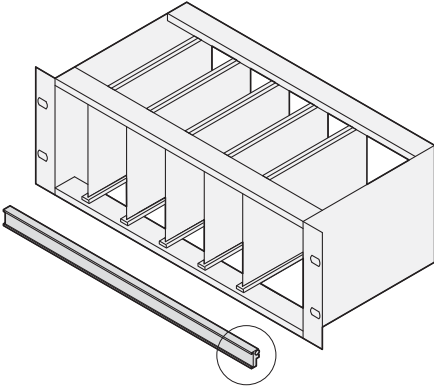
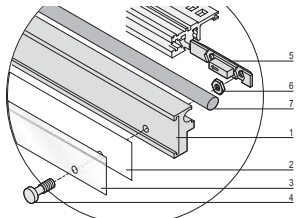
 <p style="text-align: right; font-size: small;">bpa45875</p>			<p>Mounting plate can be used in combination with cover plate</p>  <p style="text-align: right; font-size: x-small;">06108080</p>	<p>Mounting plate for use without cover plate</p>  <p style="text-align: right; font-size: x-small;">bpa45875</p>		<p>Fixing strip for partial widths</p>  <p style="text-align: right; font-size: x-small;">bpa46557</p>
			<p>Al, 1.5 mm; mounting is only possible over the entire width between the side panels; width of mounting plate = W - 9.71 mm</p>	<p>Al, 1.5 mm; for mounting over partial width, please order fixing strips separately</p>		<p>St, 2.5 mm, zinc-plated; is bolted from front to rear onto the horizontal rails; to fix mounting plates</p>
Width W	W	Board length	1 piece	1 piece	1 piece	
HP	mm	mm				
28	146.88	160	34563-001	<b>34562-745</b>	30840-021	
28	146.88	220	<b>34563-009</b>	<b>34562-749</b>	30840-033	
28	146.88	280	-	<b>34562-753</b>	30840-045	
28	146.88	340	-	<b>34562-757</b>	30840-057	
42	217.99	160	<b>34563-002</b>	<b>34562-746</b>	30840-021	
42	217.99	220	<b>34563-014</b>	<b>34562-750</b>	30840-033	
42	217.99	280	-	<b>34562-754</b>	30840-045	
42	217.99	340	-	<b>34562-758</b>	30840-057	
63	324.67	160	<b>34563-003</b>	<b>34562-747</b>	30840-021	
63	324.67	220	<b>34563-019</b>	<b>34562-751</b>	30840-033	
63	324.67	280	-	<b>34562-755</b>	30840-045	
63	324.67	340	-	<b>34562-759</b>	30840-057	
84	431.35	160	<b>34563-004</b>	<b>34562-748</b>	30840-021	
84	431.35	220	<b>34563-024</b>	<b>34562-752</b>	30840-033	
84	431.35	280	-	<b>34562-756</b>	30840-045	
84	431.35	340	-	<b>34562-760</b>	30840-057	
Assembly kit for mounting plate, PU 1 kit (Torx countersunk screw M4 x 5, St, zinc-plated, 12 pieces; screw M4 x 6, St, zinc-plated, 10 pieces; square nut M4, St, zinc-plated, 10 pieces)			<b>24560-184</b>	<b>24560-184</b>	-	
Assembly kit for fixing strips for partial width mounting plates Torx screw M2.5 x 5, St, zinc-plated, PU 100 pieces			-	-	<b>24560-146</b>	

Note

- For installation and fixing of heavy components
- In addition to the mounting plate, (EMC) cover plates can also be fitted to the subrack
- The mounting plate is as wide as the subrack or system case and is fixed to the side panels
- A guide rail can be fitted on the first and last slot
- Guide rails type "4.4" and type "strengthened" cannot be used

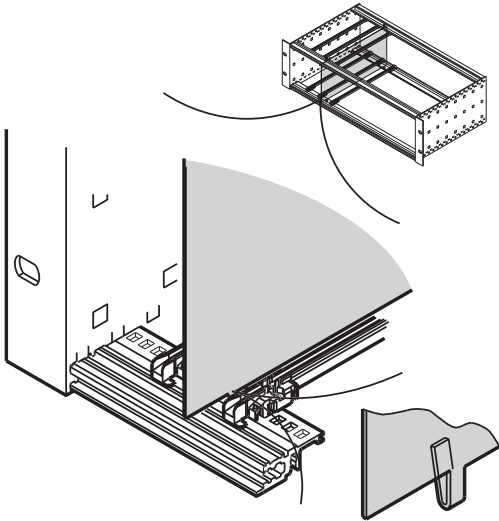
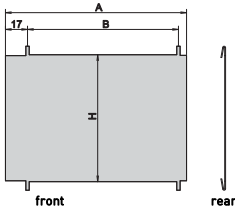
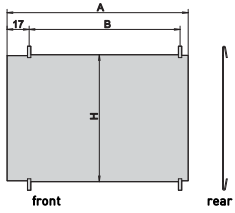
## Central locking

### Order Information

	<p style="text-align: center;"><b>Central locking for PCBs without front panels</b></p>  <p>Item 1: central rail, Al, anodised;              item 2: ID cardboard, white;              item 3: transparent cover strip, plastic;              item 4: 2 x knurled screw;              item 5: 2 x slide nut;              item 6: 2 x hexagon nut M2.5;              item 7: rubber gasket;</p> <p>central locking allows joint locking of PCBs and serves as identification strip;              can be fitted to front and rear horizontal rails,              suitable for 84 HP width</p>	<p>bza45819</p>
<p><b>Width</b> HP 84</p>	<p><b>Length</b> mm 426.0</p>	<p>06197010</p>

## Divider plate

### Order Information

	<b>Divider plate</b>				
	<p><b>Mounting position when stainless steel EMC gasket is used</b></p>  <p style="text-align: right;">bpa45911</p>	<p><b>Mounting position when textile EMC gasket is used</b></p>  <p style="text-align: right;">06105078</p>			
<p><b>Height</b> U</p>	<p><b>Depth</b> mm</p>	<p><b>A</b> mm</p>	<p><b>B</b> mm</p>	<p><b>H</b> mm</p>	<p>bpa45912</p>
3	160	158.3	135.0	113.5	<p><b>PU 10 pieces</b> <b>34562-761</b></p>
3	220	218.3	195.0	113.5	<p><b>34562-762</b></p>
6	160	158.3	135.0	246.9	<p><b>34562-763</b></p>
6	220	218.3	195.0	246.9	<p><b>34562-764</b></p>

Stainless steel, 1 mm, is mounted by clipping onto horizontal rail,  
 space requirement on component side 2 mm;  
 mounting direction varies with shielding design (EMC stainless steel or textile gasket);  
 retrofitting the divider plate in an already-assembled subrack/case  
 will first require dismantling of the horizontal rails;  
 where front panels are unshielded, both mounting directions are possible

Subracks - *europac* **PRO**ServicePLUS

Air baffles for slots

Order Information

			Air baffle without front panel	Air baffle with front panel	
				Front panel with lateral groove for stainless steel EMC gasket	U front panel for textile EMC gasket
<p>06101507</p>			<p>06108085</p> <p>Al, 1 mm, incl. fixing material kit; prevents an air short circuit in unused slot positions; is pushed into the groove of the guide rail</p>	<p>06108087</p> <p>Air baffle, Al, 1 mm; front panel, Al, 2.5 mm, front anodised, rear conductive; stainless steel EMC gasket; fixing material kit prevents an air short circuit in unused slot positions; is pushed into the groove of the guide rail</p>	<p>06108088</p> <p>Air baffle, Al, 1 mm, front panel, Al extrusion, 2.5 mm, front anodised, rear conductive; textile EMC gasket, fixing material kit prevents an air short circuit in unused slot positions; is pushed into the groove of the guide rail</p>
Depth mm	Width HP	Height U	1 piece	1 piece	1 piece
160	4	3	<b>34562-823</b>	<b>20848-712</b>	<b>20848-728</b>
160	4	6	<b>34562-826</b>	<b>20848-720</b>	<b>20848-736</b>
160	8	3	<b>34562-833</b>	20848-714	20848-730
160	8	6	<b>34562-836</b>	20848-722	20848-738
160	12	3	<b>34562-843</b>	20848-716	20848-732
160	12	6	<b>34562-846</b>	20848-724	20848-740
220	4	3	<b>34562-824</b>	20848-713	20848-729
220	4	6	<b>34562-827</b>	20848-721	20848-737
220	8	3	<b>34562-834</b>	20848-715	20848-731
220	8	6	<b>34562-837</b>	20848-723	20848-739
220	12	3	<b>34562-844</b>	20848-717	20848-733
220	12	6	<b>34562-847</b>	20848-725	20848-741
Assembly tool for stainless steel EMC gasket, 1 piece			-	<b>24560-270</b>	-

Note

- Air baffle for 280 mm deep and for 80 mm rear I/O boards available on request

## Simple telescopic slide for assembly of subracks in cabinets

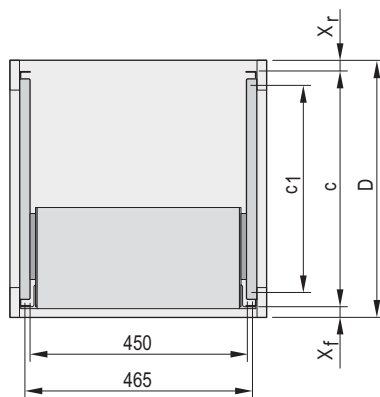


06101006

- For mounting 84 HP wide subracks in the 19" plane
- Loading capacity: 25 kg per pair
- The guiding profile is matched to the fixing dimension in the cabinet (it is bolted to the 19" profile of the cabinet); the adaptor rail is matched to the depth and fixing dimension on the subrack (it is inserted into the guiding profile like a telescopic slide)
- Safety note:  
No protection against extraction, no stop at full extension

### Order Information

#### Telescopic slides with guiding profile for fitting in cabinets



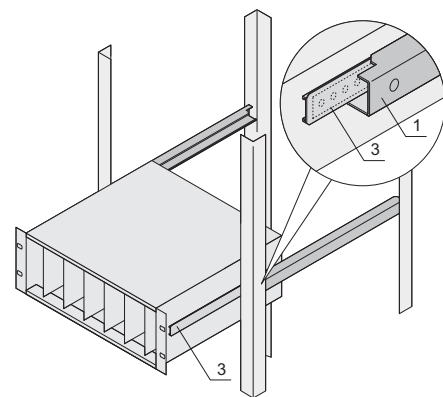
06108082

Description	Depth D mm	$x_f$ mm	$x_r$ mm	C mm	c1 mm	Part no.
VARISTAR	600	50	50	500	369	<b>24562-464</b>
VARISTAR	800	50	50	700	569	<b>24562-466</b>
VARISTAR	900	50	50	800	669	<b>24562-467</b>
VARISTAR	1000	50	50	900	769	<b>24562-468</b>
VARISTAR	1100	50	50	1000	869	<b>24562-472</b>
VARISTAR	1200	50	50	1100	969	<b>24562-473</b>
eurorack	600	60	60	480	397	<b>24562-449</b>
eurorack	800	60	60	680	597	<b>24562-451</b>
eurorack	900	60	60	780	697	<b>24562-452</b>
NOVASTAR	500	33	60	407	350	<b>24562-460</b>
NOVASTAR	600	33	60	507	450	<b>24562-461</b>
NOVASTAR	800	33	60	707	650	<b>24562-474</b>
Lab rack	250	0	0	250	162	<b>24562-446</b>

$x_f$ ,  $x_r$ : Distance of 19" plane to cabinet edge (front, rear)  
 c: Distance of 19" planes from each other,  
 c1: Fixing dimension of guiding profile on 19" panel/slide mounts

### Order Information

#### Telescopic slides with adaptor rail for subracks



06108072

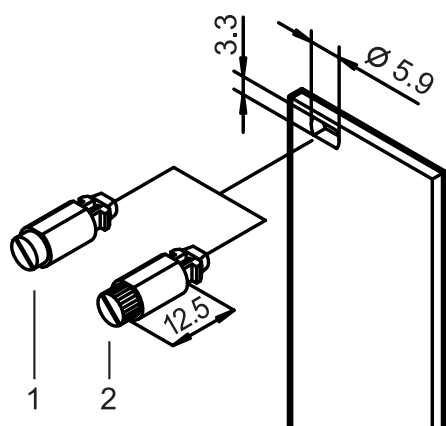
For subrack depth mm	Part no.
175	<b>24562-453</b>
235	<b>24562-454</b>
295	<b>24562-455</b>
355	<b>24562-456</b>
415	<b>24562-457</b>
475	<b>24562-458</b>

Subracks - *europac* PRO ServicePLUS

## Assembly parts

- Quick-release fasteners
- Sleeves
- Screws
- Cage nuts
- Tools

## Quick-release fasteners



06702062

- Vibration and shock proof
- 1/4 rotary lock with defined stop
- Detection of locking position through slot position

## Delivery comprises

Qty	Description
1	Locking pin, St, locking, Zn die-cast
1	Press-in sleeve, POM

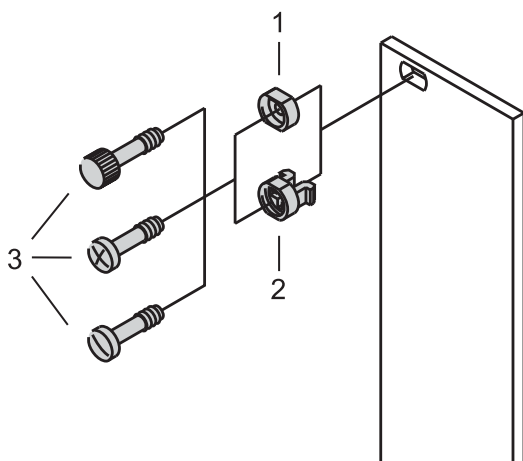
## Order Information

Item	Description	Qty/PU	Part no.
1	With slotted head, grey	100	<b>21101-847</b>
1	With slotted head, black	100	<b>21101-848</b>
2	With knurled and slotted head, grey	100	<b>21101-849</b>
2	With knurled and slotted head, black	100	<b>21101-850</b>

## Note

Quick-release fasteners: mounting without threaded inserts

## Sleeves



06702061

## Order Information

Item	Description	Qty/PU	Part no.
2	Plastic sleeve, PA, grey	100	<b>21100-464</b>
2	Plastic sleeve, PA, black	100	<b>21100-591</b>
1	Metal sleeve, brass, nickel-plated	10	<b>21100-659</b>
1	Metal sleeve, brass, nickel-plated	100	<b>21100-660</b>
1	Metal sleeve, brass, black	100	<b>21100-886</b>
1	Metal sleeve, stainless steel	10	<b>21100-661</b>
1	Metal sleeve, stainless steel	100	<b>21100-662</b>

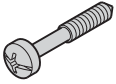
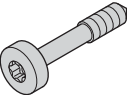
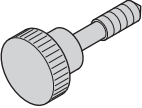
## Note

- Metal sleeves must be pressed-in in front panels
- Sleeve does not fit in 2 HP wide front panels

## Subracks - *europacPRO* ServicePLUS

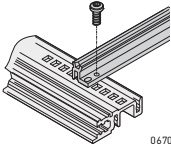
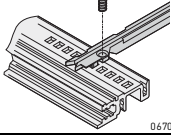
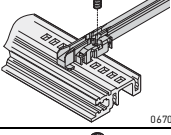
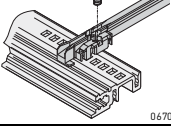
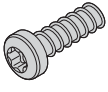
### Collar screws

#### Order Information

Description	Application	Material	Dimension	Qty/PU	Part no.
 Collar screw with pozidrive/slot <small>AZA46586</small>	For mounting of front panels when using threaded inserts	St, nickel-plated	M2.5 x 12.3	100	<b>21101-101</b>
		St, zinc-plated, black	M2.5 x 12.3	100	<b>21101-102</b>
 Torx collar screw <small>AZA45941</small>	For mounting of front panels when using threaded inserts	St, nickel-plated	M2.5 x 12.3	100	<b>21101-782</b>
		St, zinc-plated, black	M2.5 x 12.3	100	<b>21101-783</b>
 Collar screw with knurled head <small>aza45929</small>	For mounting of front panels when using threaded inserts	Brass, nickel-plated	M2.5 x 12.3	100	<b>21101-749</b>
	For mounting of front panels when using threaded inserts for horizontal rails with long lip	Brass, nickel-plated	M2.5 x 12.3	100	<b>21101-909</b>

### Torx screws, self-forming


#### Order Information

Description	Application	Material	Dimension	Qty/PU	Part no.
 Torx panhead screw, self-forming <small>06707058</small>	For extra-robust Al guide rails; torque max. 0.2 Nm	St, zinc flake coating, black	2.5 x 7.3	100	<b>24560-157</b>
 Torx countersunk screw, self-forming <small>06707058</small>	For 4.4" board height, guide rail on horizontal rail, europacPRO, ratiopacPRO; torque max. 0.2 Nm	St, zinc-plated	2.5 x 7.7	100	<b>24560-158</b>
 Torx panhead screw, self-forming <small>06707058</small>	For plastic guide rail on horizontal rail; for panel bracket on horizontal rail; torque max. 0.2 Nm	St, zinc-plated	2.5 x 9.3	100	<b>24560-141</b>
 Torx panhead screw, self-locking <small>06707058</small>	For plastic guide rails on horizontal rails	St, zinc-plated	2.5 x 9.3	100	<b>21500-039</b>
 Torx panhead screw <small>06707058</small>	For 6 U support member, backplane mounting, centre horizontal rail	St, zinc-plated	2.5 x 10	100	<b>24560-179</b>

Subracks - *europacPRO*ServicePLUS

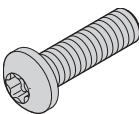

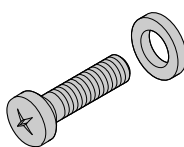
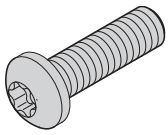
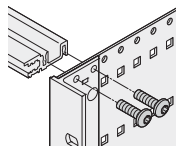
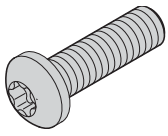
## Countersunk screws

## Order Information

Description	Application	Material	Dimension	Qty/PU	Part no.
 Torx screw <small>AZA46585</small>	For support profiles europacPRO, ratiopacPRO	St, zinc-plated	M4 x 5	100	<b>24560-139</b>
	For mixed board assembly and assembly of shortened horizontal rail on support member, with GND/earthing function	St, zinc-plated	M4 x 14	100	<b>24560-145</b>

## Torx panhead screws

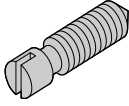
## Order Information

Description	Application	Material	Dimension	Qty/PU	Part no.
 Torx panhead screw <small>aza45940</small>	For Z-rails and connector assembly	St, nickel-plated	M2.5 x 7	100	<b>24560-147</b>
	For perforated rails	St, nickel-plated	M2.5 x 10	100	<b>24560-148</b>
	For backplane mounting	St, nickel-plated	M2.5 x 12	100	<b>24560-161</b>
		St, nickel-plated	M2.5 x 14	100	<b>24560-162</b>
 Washer <small>aza45178</small>	For insulated backplane mounting	Plastic, PA	2.8 x 6.3 x 2	100	<b>21101-964</b>
 Screw + plastic washer (PA) <small>aza45940</small>	For backplane mounting	St, nickel-plated	M2.5 x 12	100	<b>21100-777</b>
 Torx panhead screw <small>aza45940</small>	To bolt on support bracket, rear hood, corner profile on side panel, lengthening bracket and connecting bracket	St, zinc-plated	M4 x 6	100	<b>24560-135</b>
	To bolt-on cover plate or mounting plate, with GND/earthing function	St, zinc-plated	M4 x 6	100	<b>24560-151</b>
	To bolt-on cover plate or mounting plate, with GND/earthing function, self-forming thread	St, zinc-plated	M4 x 6	100	<b>21101-884</b>
 Torx panhead screw <small>06707058</small>	For horizontal rail on side panel if guide rails are bolted to slot 1	St, zinc-plated	M4 x 10	100	<b>24560-155</b>
	For horizontal rail on side panel, with GND/earthing function	St, zinc-plated	M4 x 14	10	<b>24560-131</b>
 Torx panhead screw <small>aza45940</small>	For horizontal rail on side panel, with GND/earthing function	St, zinc-plated	M4 x 14	100	<b>24560-130</b>

## Subracks - *europac* PRO ServicePLUS

### Grub screws

#### Order Information

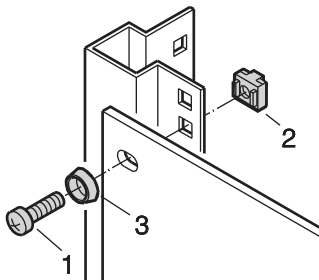
Description	Application	Material	Dimension	Qty/PU	Part no.
 <small>06702053</small>	For threaded inserts M2.5 and perforated strips	Stainless steel	M2.5 x 9	100	<b>21101-359</b>
	For threaded inserts M2.5	St, nickel-plated	M2.5 x 8	100	<b>21100-276</b>
	For threaded inserts M3	St, zinc-plated	M3.0 x 8	100	<b>21100-646</b>

### Square nuts

#### Order Information

Description	Application	Material	Dimension	Qty/PU	Part no.
 <small>AZA45921</small>	For fixing: parts to side panels, support profiles, mounting plates	St, zinc-plated	M4	100	<b>24560-140</b>

### Assembly kits



SC128XXX

- For assembly of subracks in cabinets or 19" cases
- For assembly of desk-top cases in cabinets by means of 19" brackets

#### Delivery comprises (kit)

Item	Qty	Description
1	1	Pozidrive screw M6 x 16, zinc-plated
2	1	Plastic washer, ABS, black
3	1	Cage nut M6, zinc-plated

#### Order Information

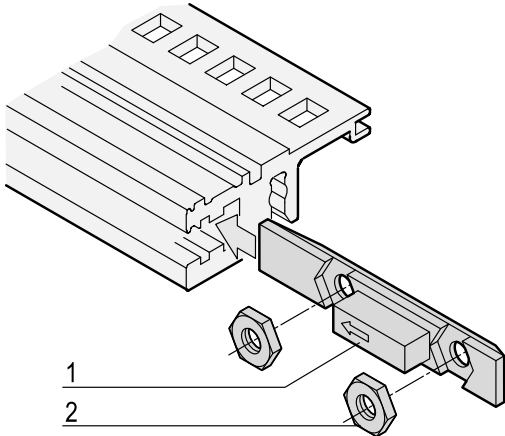
Description	Part no.
PU = 8 x screw, washer, nut	<b>21100-435</b>
PU = 50 each of M6 screw, washer and cage nut	<b>21101-809</b>
PU = 100 each of M6 screw, washer and cage nut	<b>21101-810</b>

- For 19" brackets with material thickness of 1.5 mm, see "Assembly kits" in chapter Cabinet accessories



Subracks - *europac* **PRO**ServicePLUS

Slide, to accomodate 2 nuts



- The slide is pushed into the groove of the horizontal rail to front or rear (type VT)

Delivery comprises (kit)

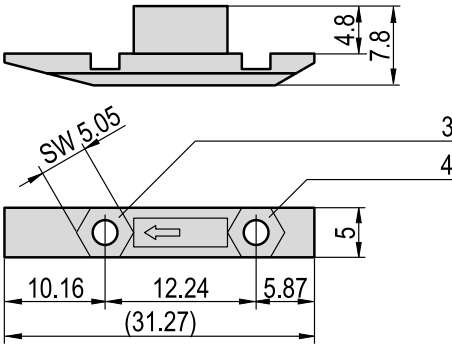
Item	Qty	Description
1	1	Slide, PBT, red, UL 94 V-0
2	2	Nut, M2.5, St, zinc-plated

Order Information

Description		Part no.
Slide nut kit 1	100 slides/200 nuts	<b>24560-165</b>
Slide nut kit 2	12 slides/24 nuts	<b>24560-166</b>

Note

- Nuts used in item 3 suitable for:
  - hinged front panels, 84 HP
  - front or rear panels, 84 HP
- Nuts used in item 4 suitable for:
  - hinged front panels
- Nuts used in item 3 and 4 suitable for:
  - two front panels

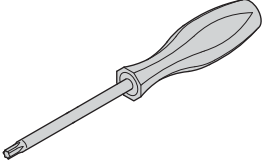
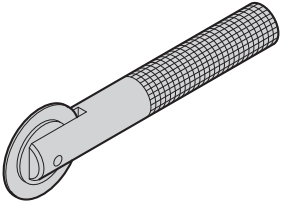
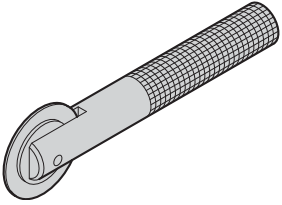


06702060

## Subracks - *europac* **PRO** ServicePLUS

### Assembly tools

#### Order Information

	Description	Application	Dimension	Qty/PU	Part no.
	Torx screwdriver	T 8 torx	T8	1	64560-026
		T 20 torx	T20	1	64560-027
	Assembly tool	Exclusively to fix stainless steel EMC gaskets in horizontal rails	-	1	24560-271
	Assembly tool	To fix stainless steel EMC gaskets on front panels with lateral slots	-	1	24560-270

#### Note

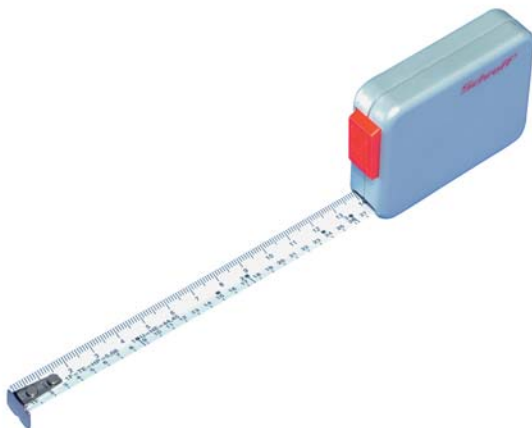
- Assembly tool to insert keying/coding pegs in guide rails is available on request

### Tape measure

- Measuring tape with cm, U-, HP-division (length 2 m)
- Plastic housing, metal measuring tape with automatic collection

#### Order Information

Description	Qty/PU piece	Part no.
Tape measure	1	89009-001



32506001

# Subracks - *europac PRO* ServicePLUS

## Application examples

### Application: Transportation/defense sectors



- Mounting frame to accommodate a 36 HP wide railway subrack, frame from stainless steel

06108006



- Robust assembly by double bolt-on fixing
- Lateral ducting in cabinet
- Combined mounting 6 U+ 2 x 3 U

06103001

### Application: Measurement, control and instrumentation sectors



- Combined mounting with 2 x 3 U in 6 U
- Divider plate to separate different sections
- Installation with strengthened guide rails

06108002



- Subrack with additional telescopic fan unit
- Adaptation at bottom and top integrated into the side panel

06108003

### Application: Telecoms sectors



- Shielded subrack for special applications with mounting plate, cover and base plate
- Mounting plate for heavy assemblies

06112023



- Subrack with plastic cable ducting for fibre optic cables
- Terminal area at top

06101005

## Appendix – Order notes

### Packaging units

A packaging unit (PU) - e.g. carton, bag - contains the stated quantity. If you order the quantity 1, you will automatically receive the quantity defined as PU.

Example: EMC textile gasket  
See page 5.22  
Part number 21101-853

Quantity (per part number): 10 pieces

Order quantity: . . . . . Delivery quantity:

1 . . . . .	10 pieces
2 . . . . .	20 pieces
3 . . . . .	30 pieces

### Price list

Our price list is available by e-mail from your customer consultant. Please find all contact details at [www.schroff.biz/contact](http://www.schroff.biz/contact).

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**VARISTAR:** [www.varistar.co.uk](http://www.varistar.co.uk)

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**IT Infrastructure:** [www.schroff.co.uk/datacom](http://www.schroff.co.uk/datacom)

### Standard pack quantity (SPQ)

Please take into consideration that deliveries may be carried out in the stated SPQs (SPQ, e.g. 5 pieces, 10 pieces, 50 pieces, etc.). Differing order quantities (e.g. 2 pieces) may be changed to the next possible delivery quantity = Standard Pack Quantity (in this case 10 pieces).

Example: Front horizontal rail  
See page 5.31  
Part number 34560-228

Quantity (per part number): 1 piece  
Standard pack quantity (SPQ): 10 pieces

Order quantity: . . . . . Delivery quantity:

≤ 10 . . . . .	10 pieces
> 10 ≤ 20 . . . . .	20 pieces
> 20 ≤ 30 . . . . .	30 pieces

### Delivery times

Part numbers in bold face type are ready for despatch within 2 working days; part numbers in normal type are ready for despatch within 10 working days.

### Business relations

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The data in this catalogue have been thoroughly edited and checked - in assistance with an accredited Quality Management System in accordance with EN ISO 9001:2008.

Faults and spelling mistakes, but mainly changes due to improvements and further developments of our products are subject to change. There is no possibility to claim indemnity/compensation.

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