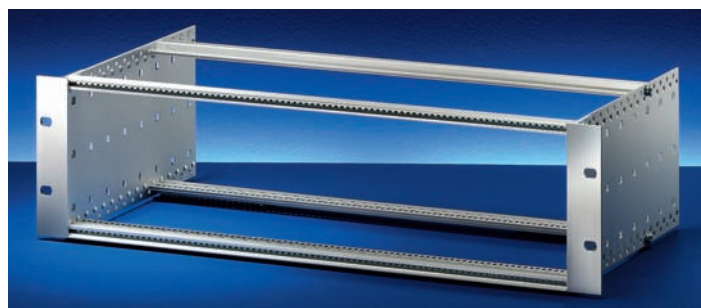
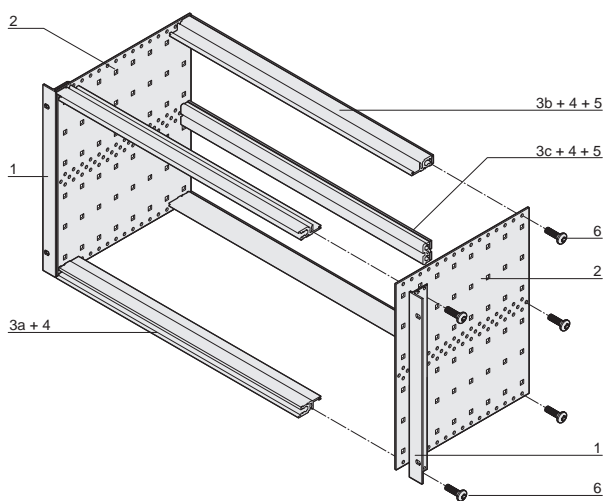


# Subracks - europac PRO Kits

## Kit, unshielded, "light", for backplane mounting

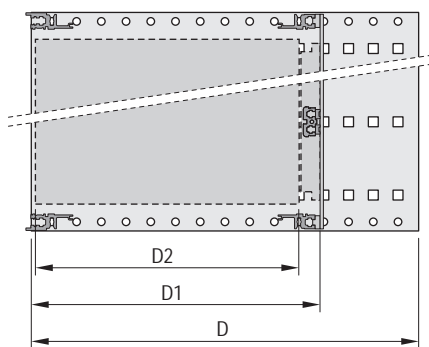


06102007



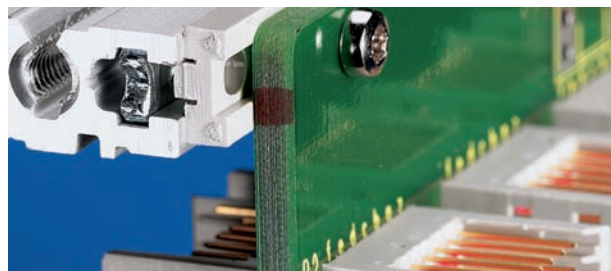
06102081

6 U



06108051

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



04400001

Rear horizontal rail with insulation strip for backplane mounting

- Subrack in lightweight version ("light")
- Rear horizontal rail with insulation strip for backplane mounting

### Delivery comprises (kit)

Item	Qty		Description
	3 U	6 U	
1	2	2	19" support bracket for stainless steel EMC gasket
2	2	2	Side panel type F
3a	2	2	Front horizontal rail (L-KD)
3b	2	2	Rear horizontal rail (L-ST) for backplane mounting with insulation strip
3c	-	1	Centre horizontal rail (ST)
4	4	6	Threaded inserts, to front and rear, pre-fitted
5	2	4	Insulation strip (pre-fitted)
6	1	1	Assembly kit
7	1	1	User manual

### Order Information

Height	Width	Depth	Depth D1	Depth D2	Part no.
U	HP	mm	mm	mm	
3	84	175	175	160	<b>24563-131</b>
3	84	235	175/235	160/220	<b>24563-132</b>
3	84	295	175/235/295	160/220/280	<b>24563-133</b>
3	84	355	175/235/295/355	160/220/280/340	<b>24563-134</b>
3	84	415	175/235/295/355	160/220/280/340	<b>24563-135</b>
3	84	475	175/235/295/355	160/220/280/340	<b>24563-136</b>
6	84	175	175	160	<b>24563-431</b>
6	84	235	175/235	160/220	<b>24563-432</b>
6	84	295	175/235/295	160/220/280	<b>24563-433</b>
6	84	355	175/235/295/355	160/220/280/340	<b>24563-434</b>
6	84	415	175/235/295/355	160/220/280/340	<b>24563-435</b>
6	84	475	175/235/295/355	160/220/280/340	<b>24563-436</b>
<b>Assembly kit, PU 8 x screw, washer, nut for assembly of subracks in a 19" case or a cabinet</b>					<b>21100-435</b>

### Guide rails (standard), ESD clips

Tiefe D2	Qty/PU	Part no.
mm		
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

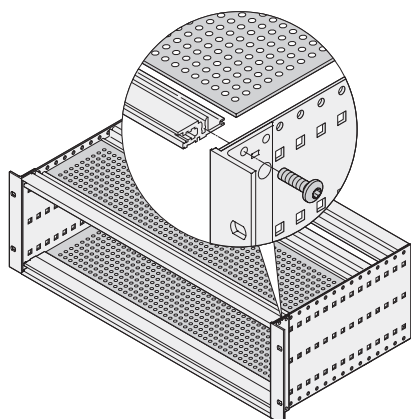
- Perforated rail, cover plates and assembly kit from page 6.10
- Further accessories from page 6.57
- ServicePLUS configuration from page 6.16



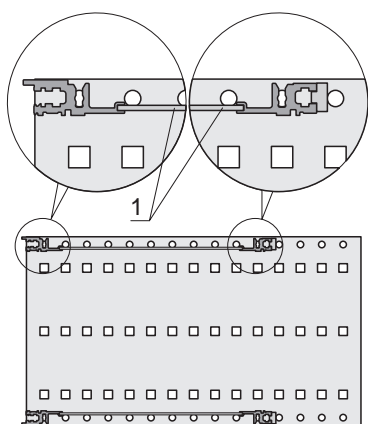
ServicePLUS see page 6.16

## Subracks - europac PRO Kits

### Cover plates for 'light' subrack



06108077



06108058

- Mechanical cover to push into the groove of the horizontal rails type "light"
- Perforation degree 60 %

#### Delivery comprises

Item	Qty	Description
1	2	Cover plate, perforated aluminium plate, 1.2 mm, hole diameter 3.8 mm, untreated

#### Order Information

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

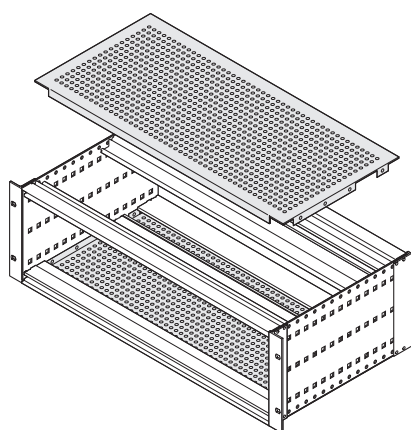
#### Note

- Other dimensions available on request



For further information [www.schroff.biz/oneclick](http://www.schroff.biz/oneclick)  
oneClick search code = Part no.

### Cover plates for subrack



06102084

- Mechanical cover to bolt onto the side panel
- For fitting of 160, 220 or 280 mm deep PCBs
- Suitable for all horizontal rails
- Perforation degree 58 %

#### Delivery comprises

Item	Qty	Description
1	2	Cover plate, Al, 1.0 mm, hole diameter 4.0 mm, iridescent green chromated
2	16/20/ 32	Torx screws, 4 x 6, pentaform, self-tapping, St, zinc-plated

#### Order Information

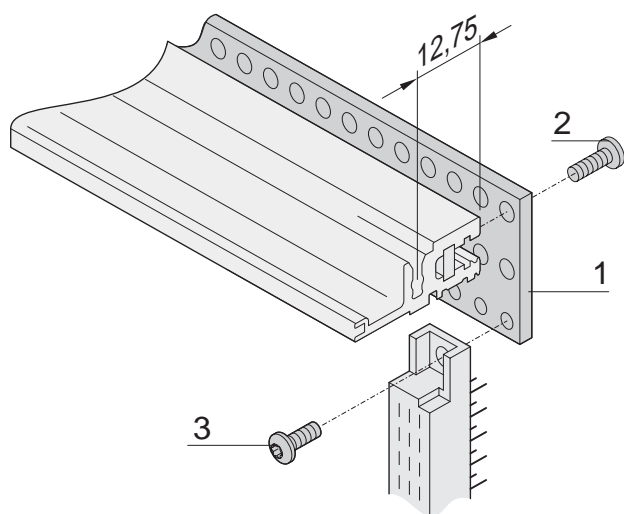
Depth D2 mm	Width HP	Qty/PU	Part no.
160	84	2	<b>24560-078</b>
220	84	2	<b>24560-079</b>
280	84	2	<b>24560-080</b>
340	84	2	<b>24560-081</b>



For further information [www.schroff.biz/oneclick](http://www.schroff.biz/oneclick)  
oneClick search code = Part no.

## Subracks - europac PRO Kits

### Perforated rail for connector EN 60603-2/DIN 41612



06708051

- Insulated mounting of connectors (EN 60603-2/DIN 41612) on subracks (e.g. connector for a power supply unit)
- Perforated rails are bolted to the subrack for connector mounting (rear horizontal rail type ST, threaded insert fitted, insulation strip)

#### Delivery comprises

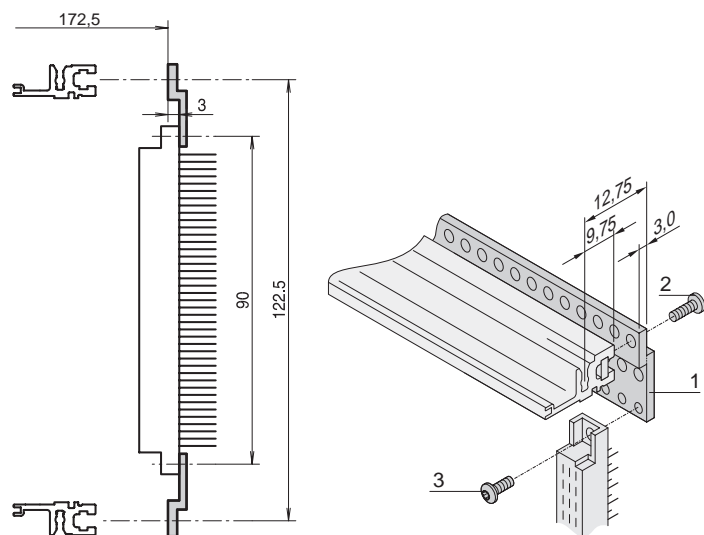
Item	Qty	Description
1	4	Perforated rail, 2 mm, Al clear passivated, mounting holes 2.8 mm, fixing for connectors M2.5

#### Order Information

Usable length HP	Length mm	Qty/PU	Part no.
28	142.24	4	<b>20822-049</b>
42	213.36	4	<b>20822-050</b>
60	304.8	4	<b>20822-047</b>
84	426.7	4	<b>20822-048</b>
<b>Item 2</b> Torx panhead screw for fixing perforated rails to the horizontal rail, M2.5 × 10, PU 100 pieces			<b>24560-148</b>
<b>Item 3</b> Torx panhead screw to fix connector to perforated rail, M2.5 × 7, PU 100 pieces			<b>24560-147</b>

- Connectors see page 11.4

### Z-rail for connector mounting



bza45849 06708063  
06708063

- in accordance with EN 60603-2 (DIN 41612)

#### Delivery comprises

Item	Qty	Description
1	1	Z-rail, Al extrusion, anodised

#### Order Information

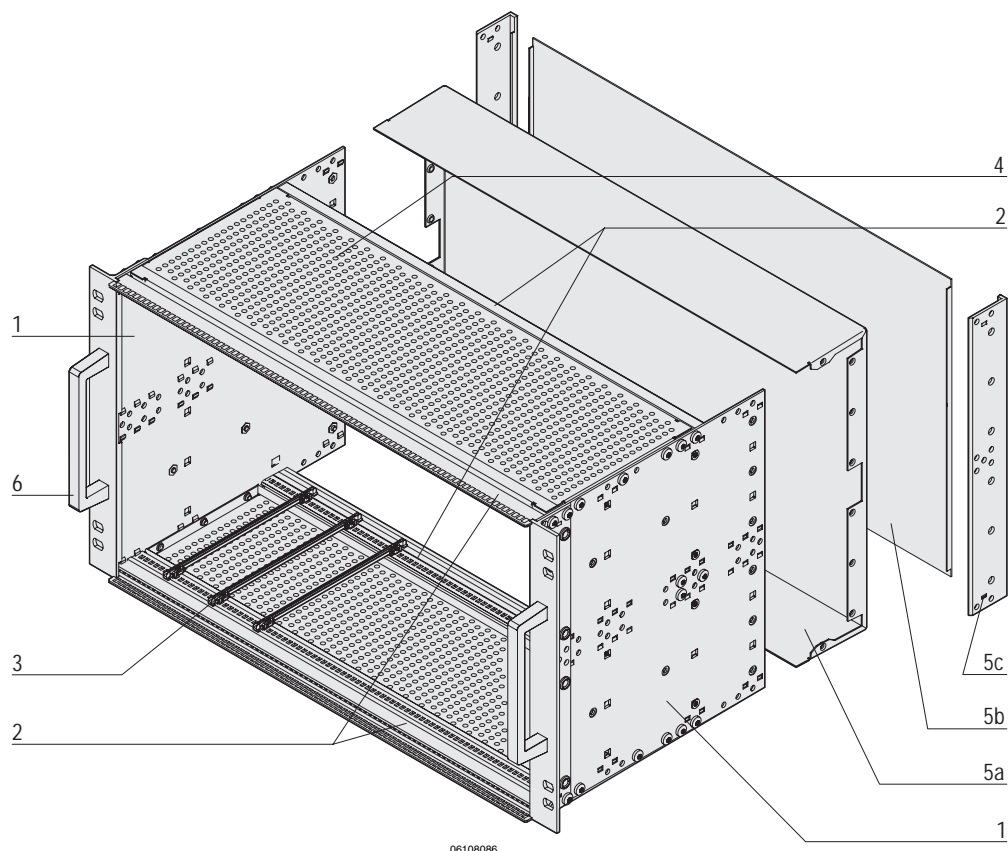
Usable length HP	Length mm	Part no.
28	142.24	<b>30822-033</b>
40	203.2	<b>30822-045</b>
42	213.36	<b>30822-047</b>
60	304.8	<b>30822-065</b>
84	426.7	<b>30822-089</b>
<b>Item 2</b> Torx panhead screw, M2.5 × 10, PU 100 pieces		<b>24560-147</b>
<b>Item 3</b> Torx panhead screw, M2.5 × 7, PU 100 pieces		<b>24560-148</b>

#### Note

- To fix Z-rail onto horizontal rail a threaded insert is needed, see page 6.32

# Subracks - *europac* PRO ServicePLUS

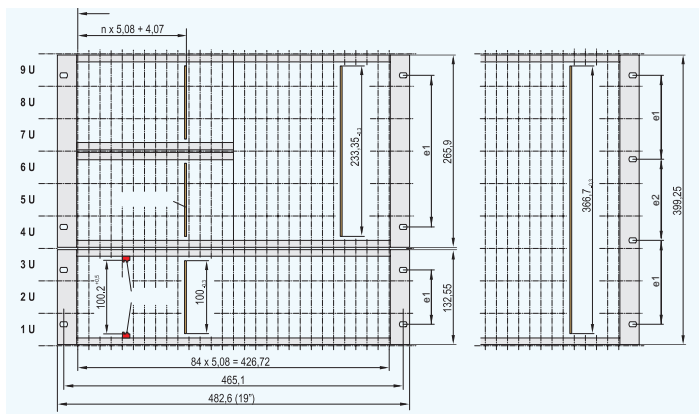
## Overview of individual components for shielded or unshielded subracks



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. In three versions: The "flexible" one with separate 19" brackets as well as two others with integrated 19" brackets for "light" and "heavy" applications.	6.19
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 at front, 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).	6.26
Item 3	Guide rails	Guide rails serve as interface between subracks and boards, for different PCB formats, are from plastic or metal, optionally codable and can, also optionally, be assembled with ESD clips to deflect electrostatic discharge.	6.34
Item 4	Cover plates	Provide mechanical protection and/or EMC shielding and are perforated.	6.42
Item 5	Rear/front	Rear hood (5a) or front panel (5b) with corner profiles (5c) as carriers for EMC seals in combination with use of shielded front panels. Note: Rear hood and corner profile cannot be fitted simultaneously.	6.46
Item 6	Handles	Handles can be mounted on the 19" brackets.	6.25
-	EMC shielding (without illustration)	Extensive component range for specific shielding of subrack according to your application.	6.51
-	Internal mounting (without illustration)	Universal assemblies, e.g. for horizontal and vertical mounting and for mounting plates.	6.57

# Subracks - *europac* PRO ServicePLUS

## Subrack dimensions

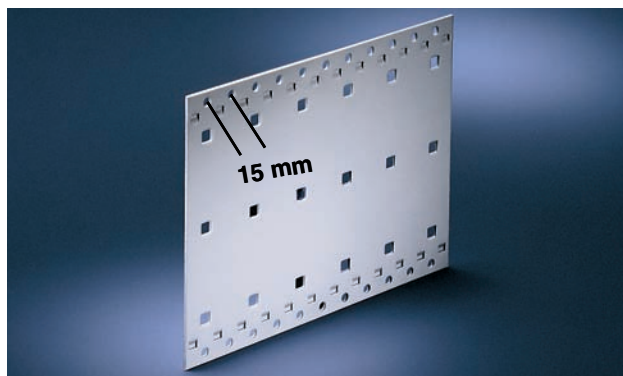


20304051

■ Dimensions conform to 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 aid positioning of 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

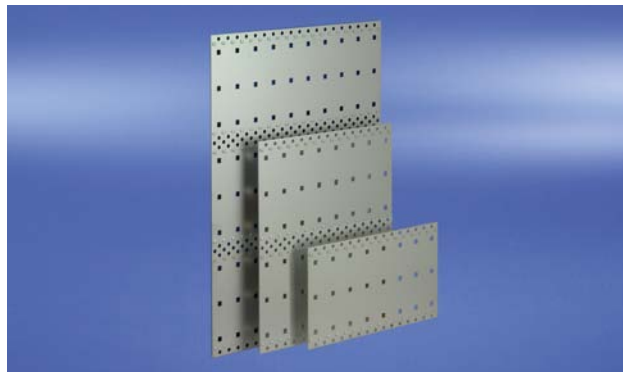


06103001

### Description

#### Depth grid

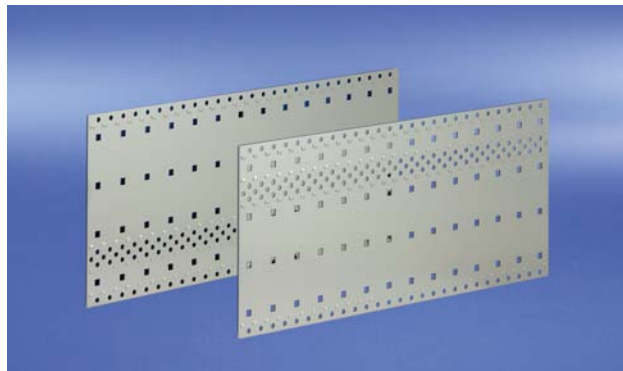
The depth grid is 15 mm, the mounting holes in the side panel are decisive for the configurability of individual components; thus any combinations of various individual parts are possible



06108008

#### 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)

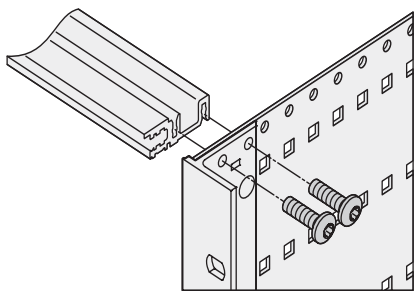


06108011

#### 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

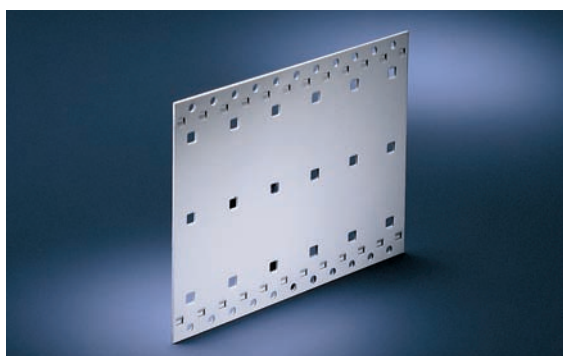
## Side panels



Side panel - horizontal rail assembly

06108062

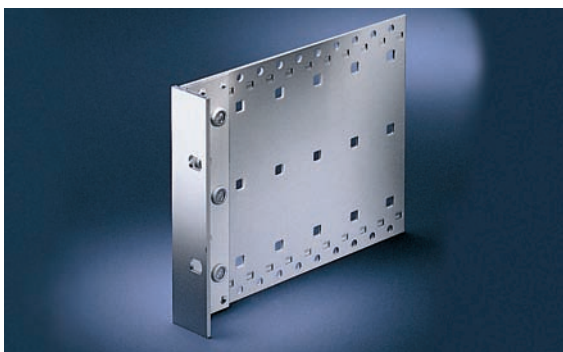
- Aluminium, 2 mm
- Holes for assembly of horizontal rails (depth grid 15 mm)
- The stampings on the internal surface of the side panels serve as anti-rotation guard and to position the horizontal rails
- Square holes (6 x 6 mm) serve for universal fixture of components like backplane shielding; version 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)
- 3 versions of the side panel:
  - **Type F = flexible**
  - **Type H = heavy**
  - **Type L = light**



06197003

### Type F (flexible)

- Universal version: 19"-bracket (please order separately) can be fitted variably to front, rear or recessed
- Heights: 3, 4, 6 and 9 U  
depths: 175, 235, 275, 277.75, 295, 355, 415 and 475 mm  
other dimensions available on request
- 2 EMC shielding concepts for front/rear side:  
EMC gasketing (stainless steel or textile gaskets)



06197004

### Type H (heavy)

- 19" bracket Tox-cold welded to side panel; specifically intended for demanding mechanical conditions (vibration resistance; shock and vibration requirements, e.g. IEC 61587-2)
- Heights: 3 and 6 U  
depths: 175, 235, 295 and 355 mm  
other dimensions available on request
- 2 EMC shielding concepts for front/rear side:  
EMC gasketing (stainless steel or textile gaskets)



06197002

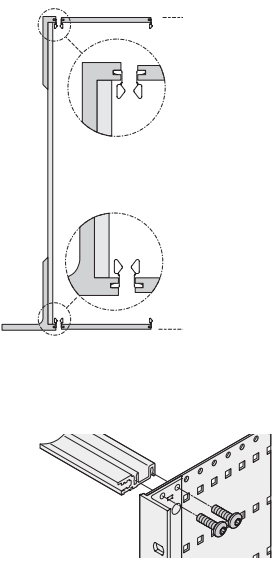
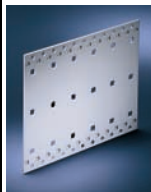
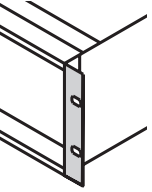
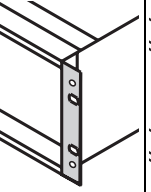
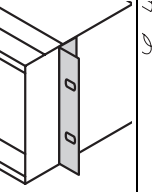
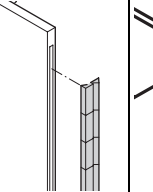
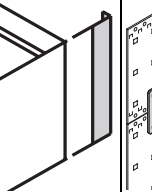
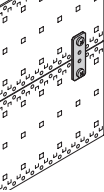
### Type L (light)

- Side panel with formed 19" brackets, for standard applications, unshielded
- Particularly cost-effective versions (not suited for EMC applications)
- Heights: 3 and 6 U  
depths: 175, 235 and 295 mm  
other dimensions available on request

# Subracks - europac PRO ServicePLUS

## Type F Side panel type F for stainless steel EMC gasket

### Order Information

		 06197003 without 19" bracket, Al, 2 mm, passivated, please order 19" bracket and corner profile separately	 bza45819 with lateral grooves for EMC stainless steel gasket, Al extrusion, rear side etched, front anodised	 06106050 with lateral grooves for stainless steel EMC gasket, Al extrusion, rear side etched, front anodised, please order front handles separately, see page 6.25	 06102501 Al extrusion, passivated	 BGA45760 inserted laterally into the slots of the front panel, stainless steel	 BZA46573 Al extrusion, surface clear passivated; with lateral grooves for EMC stainless steel gasket; rear hood cannot be mounted simultaneously	 BPA45867 Zn die-cast, incl. assembly kit, for linking two by two side panels (above one another)
Height	Depth							
U	mm	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>						
3	295	<b>34560-189</b>	<b>24560-197</b>	<b>24560-198</b>	<b>24560-199</b>	<b>21101-705</b>	<b>24561-198</b>	<b>21101-954</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>24560-297</b>	<b>24560-298</b>	<b>24560-299</b>	<b>21101-713</b>	<b>24561-298</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>						
6	295	<b>34560-489</b>	<b>24560-497</b>	<b>24560-498</b>	<b>24560-499</b>	<b>21101-707</b>	<b>24561-498</b>	<b>21101-954</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>24560-797</b>	<b>24560-798</b>	<b>24560-799</b>	<b>21101-709</b>	<b>24561-798</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 assembly of horizontal rails on side panels		<b>24560-130</b>	<b>24560-130</b>	<b>24560-130</b>	<b>24560-130</b>	–	<b>24560-130</b>	–

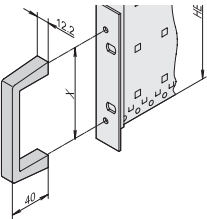
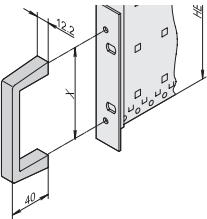
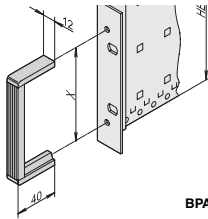
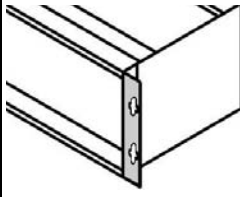
1) CompactPCI 2) VME64x 3) Grid holes of side panel 3 + 1 U

■ View of side panels 3, 4, 6, 9 U see page 6.18

# Subracks - *europac* PRO ServicePLUS

## Front handles, wall-mounting bracket

### Order Information

Height U	Depth mm	X mm	Front handle		Universal front handle	Wall-mounting bracket
			clear anodised	black anodised		
						
				BZA42327	BPA45855	06104063
					3 parts: Al extrusion, anodised, 2 end pieces, plastic, PA, black width 12 mm, depth 40 mm	Screw fixed on the subrack instead of the 19" bracket, Al, 2.5 mm, passivated
			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	88.0	<b>10501-005</b>	<b>10501-026</b>	<b>10502-057</b>	<b>24562-197</b>
3	235	88.0				
3	275	88.0				
3	277.75	88.0				
3	295	88.0				
3	355	88.0				
3	415	88.0				
3	475	88.0				
4	175	133.4	<b>10501-018</b>	-	<b>10502-059</b>	<b>24562-297</b>
4	235	133.4				
4	295	133.4				
4	355	133.4				
4	415	133.4				
4	475	133.4				
6	175	235.0	<b>10501-008</b>	<b>10501-029</b>	<b>10502-065</b>	<b>24562-497</b>
6	235	235.0				
6	275	235.0				
6	277.75	235.0				
6	295	235.0				
6	355	235.0				
6	415	235.0				
6	475	235.0				
6	970	235.0				
9	175	235.0	<b>10501-008</b>	<b>10501-029</b>	<b>10502-065</b>	<b>24562-797</b>
9	235	235.0				
9	295	235.0				
9	355	235.0				
9	415	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>

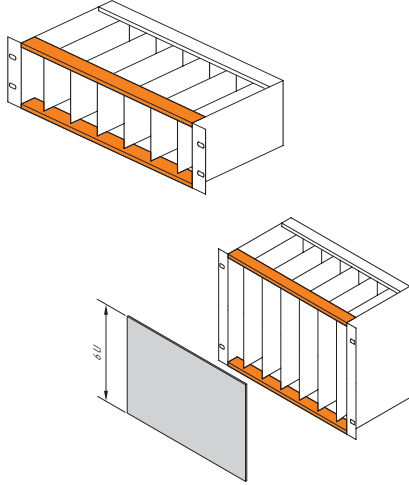
1) SPQ (standard pack quantity): Order number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple



# Subracks - *europac* PRO ServicePLUS

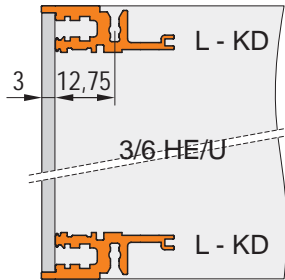
## Front horizontal rail ("light", "heavy")

Assembly 3 U, 2 x 3 U, 6 U  
3 U/6 U



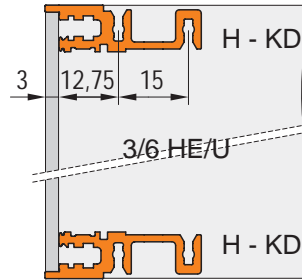
bza44980 bza44974

"light" (L)  
Short lip



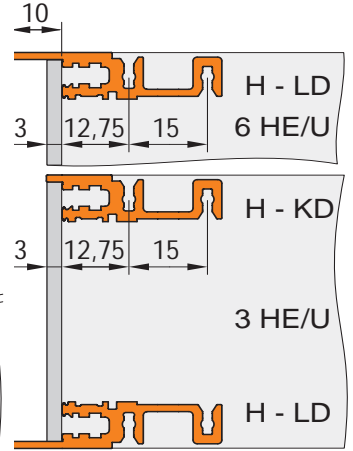
06105060

"heavy" (H)  
Short lip



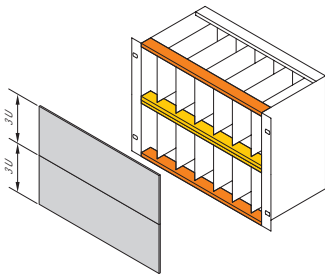
06105061

"heavy" (H)  
Long lip

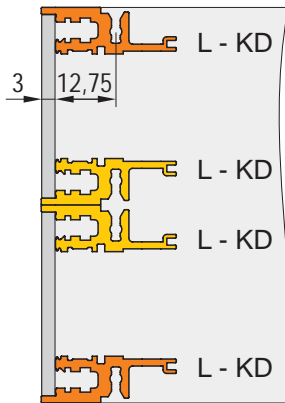


06108063

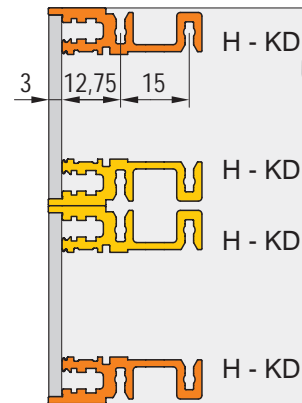
2 x 3 U



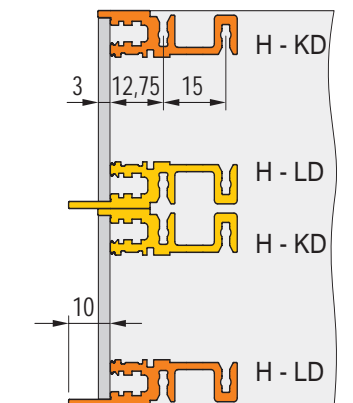
bza44972



06105062

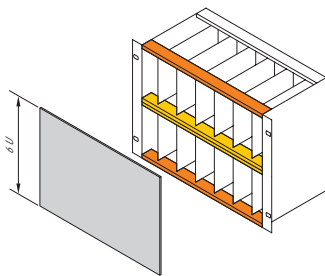


06105063

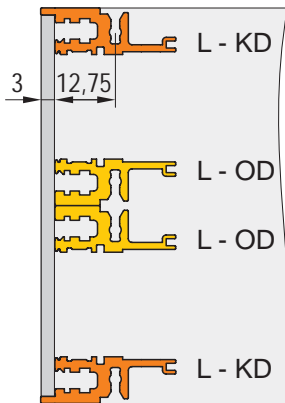


06108064

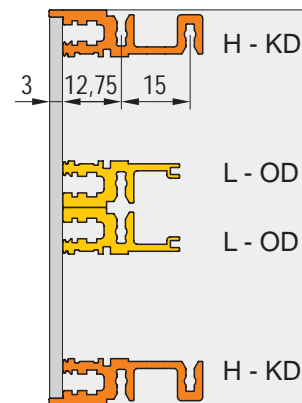
2 x 3 U, 6 U



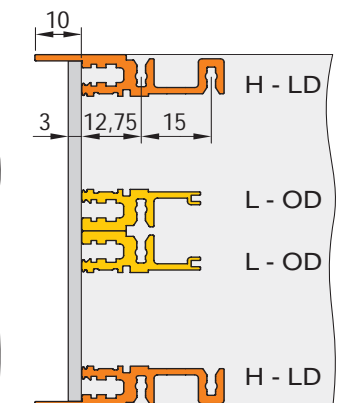
06105059



06105064



06105065



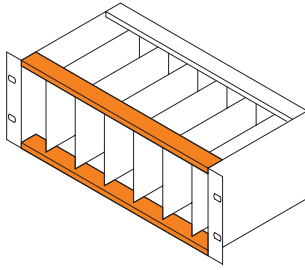




06108065

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

# Subracks - *europac* PRO ServicePLUS

## Front horizontal rails

### Order Information

 <p>bza44980</p> <p>with HP markings from 28 HP, Al extrusion, anodised finish, conductive surface</p>	<p><b>"light"</b> Type L-OD without lip</p>  <p>06197006</p> <p>Al extrusion, surface anodised, conductive contact surface</p>	<p><b>"light"</b> Type L-KD short lip</p>  <p>06197007</p> <p>Al extrusion, surface anodised, conductive contact surface</p>	<p><b>"heavy"</b> Type H-KD short lip</p>  <p>06197008</p> <p>Al extrusion, surface anodised, conductive contact surface</p>	<p>With long lip to prise out/ in CompactPCI, VME64x boards <b>"heavy"</b> Type H-LD long lip</p>  <p>06197009</p> <p>Al extrusion, surface anodised, conductive contact surface</p>	
	<p>Usable length HP</p> <p>Length mm</p>	<p>1 piece (SPQ 10)<sup>1)</sup></p>	<p>1 piece (SPQ 10)<sup>1)</sup></p>	<p>1 piece (SPQ 10)<sup>1)</sup></p>	<p>1 piece (SPQ 10)<sup>1)</sup></p>
20	106.68	<b>34560-020</b>	<b>34560-120</b>	<b>34560-220</b>	<b>34560-320</b>
28	147.32	<b>34560-028</b>	<b>34560-128</b>	<b>34560-228</b>	<b>34560-328</b>
40	208.28	<b>34560-040</b>	<b>34560-140</b>	<b>34560-240</b>	<b>34560-340</b>
42	218.44	<b>34560-042</b>	<b>34560-142</b>	<b>34560-242</b>	<b>34560-342</b>
63	325.12	<b>34560-063</b>	<b>34560-163</b>	<b>34560-263</b>	<b>34560-363</b>
84	431.80	<b>34560-084</b>	<b>34560-184</b>	<b>34560-284</b>	<b>34560-384</b>
–	1000	<b>34560-001</b>	<b>34560-101</b>	<b>34560-201</b>	<b>34560-301</b>
Screw, M4 x 14, PU 100 pieces		<b>24560-130</b>	<b>24560-130</b>	<b>24560-130</b>	<b>24560-130</b>
Bolt, M4 x 10, required if guide rails are screwed to slot 1, PU 100 pieces		–	–	<b>24560-155</b>	<b>24560-155</b>
Threaded inserts see page		6.32	6.32	6.32	6.32

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

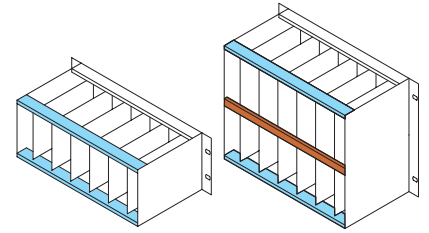
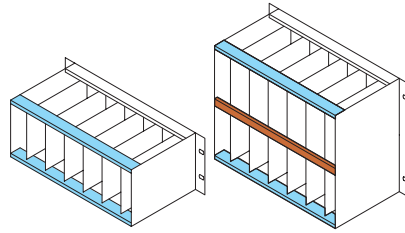
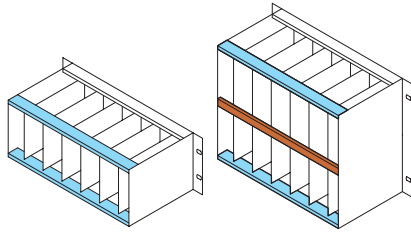
"light": loading capacity up to approx. 7.5 kg; "heavy": loading capacity L 7.5 kg

### Note

- 1000 mm version without M4 thread to front, without print and notch for 19" bracket

# Subracks - europac PRO ServicePLUS

## Rear horizontal rail ("light", "heavy")

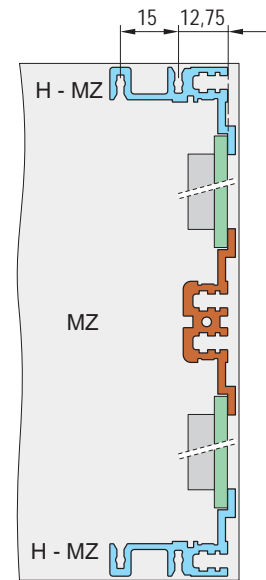
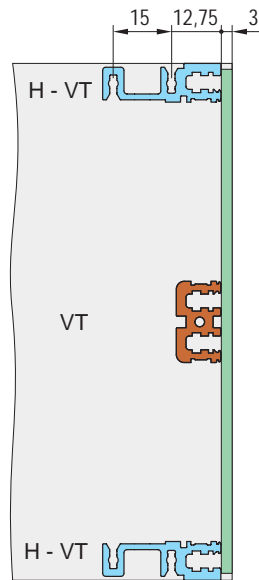
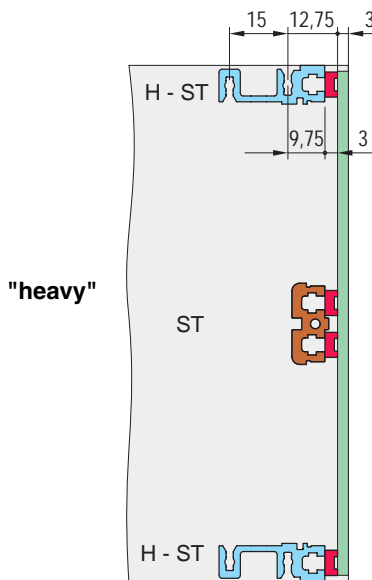
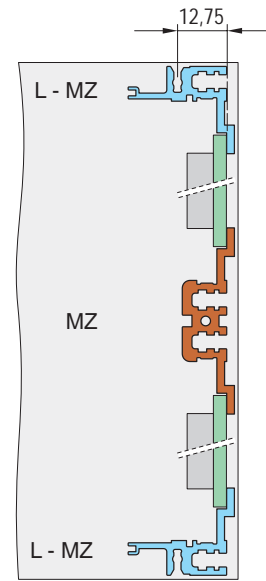
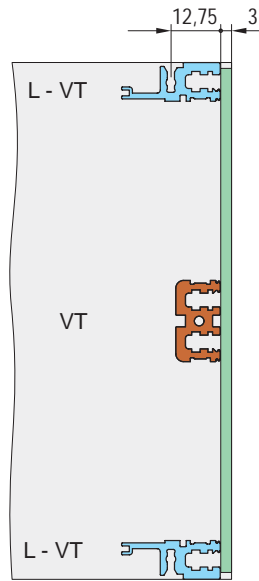
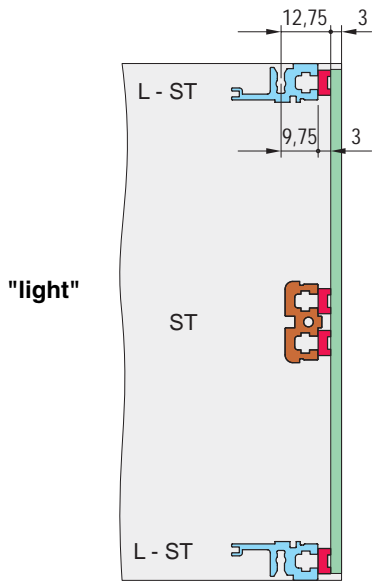


06105074 bza44981

Indirect backplane mounting  
(with insulation strips)

Direct backplane mounting

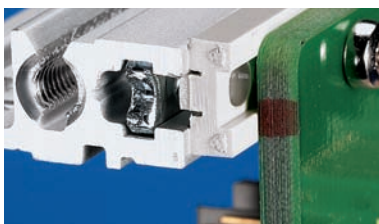
Connector fitting with Z



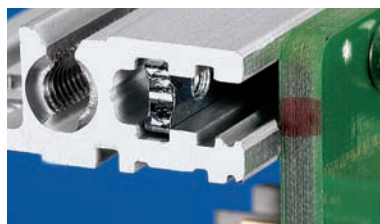
ST = standard, L = "light", H = "heavy"

VT = recessed, L = light, H = "heavy"

WZ = with z-rail, L = light, H = "heavy"



0440001



0440002

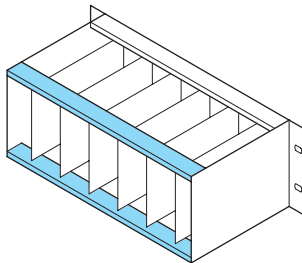











0440003

# Subracks - *europac* PRO ServicePLUS

## Rear horizontal rails

### Order Information

 <p>06105074</p> <p>With HP markings from 28 HP, Al extrusion, anodised finish, conductive surface</p>	<p><b>For indirect backplane mounting, with insulation strip</b></p>  <p>06197011</p>		<p><b>For indirect backplane mounting</b></p>  <p>06197011</p>		<p><b>For direct mounting of connectors to EN 60603-2 (DIN 41612)</b></p>  <p>06197011</p>		
	<p><b>"light"</b> Type L-ST standard</p>  <p>06197010</p> <p>Al extrusion, surface anodised, conductive contact surface</p>	<p><b>"heavy"</b> Type H-ST standard</p>  <p>06197011</p> <p>Al extrusion, surface anodised, conductive contact surface</p>	<p><b>"light"</b> Type L-VT + 3 mm</p>  <p>BZA45782</p> <p>Al extrusion, surface anodised, conductive contact surface</p>	<p><b>"heavy"</b> Type H-VT + 3 mm</p>  <p>06197009</p> <p>Al extrusion, surface anodised, conductive contact surface</p>	<p><b>"light"</b> Type L-MZ with Z-rail</p>  <p>06197014</p> <p>Al extrusion, surface anodised, conductive contact surface</p>	<p><b>"heavy"</b> Type H-MZ with Z-rail</p>  <p>06197015</p> <p>Al extrusion, surface anodised, conductive contact surface</p>	
<p><b>Usable length HP</b></p>	<p><b>Length mm</b></p>	<p><b>1 piece (SPQ 10)<sup>1)</sup></b></p>	<p><b>1 piece (SPQ 10)<sup>1)</sup></b></p>	<p><b>1 piece (SPQ 10)<sup>1)</sup></b></p>	<p><b>1 piece (SPQ 10)<sup>1)</sup></b></p>	<p><b>1 piece (SPQ 10)<sup>1)</sup></b></p>	<p><b>1 piece (SPQ 10)<sup>1)</sup></b></p>
20	106.68	<b>34560-420</b>	<b>34560-520</b>	<b>34560-620</b>	<b>34560-720</b>	<b>34560-820</b>	<b>34560-920</b>
28	147.32	<b>34560-428</b>	<b>34560-528</b>	<b>34560-628</b>	<b>34560-728</b>	<b>34560-828</b>	<b>34560-928</b>
40	208.28	<b>34560-440</b>	<b>34560-540</b>	<b>34560-640</b>	<b>34560-740</b>	<b>34560-840</b>	<b>34560-940</b>
42	218.44	<b>34560-442</b>	<b>34560-542</b>	<b>34560-642</b>	<b>34560-742</b>	<b>34560-842</b>	<b>34560-942</b>
63	325.12	<b>34560-463</b>	<b>34560-563</b>	<b>34560-663</b>	<b>34560-763</b>	<b>34560-863</b>	<b>34560-963</b>
84	431.80	<b>34560-484</b>	<b>34560-584</b>	<b>34560-684</b>	<b>34560-784</b>	<b>34560-884</b>	<b>34560-984</b>
–	1000	<b>34560-401</b>	<b>34560-501</b>	<b>34560-601</b>	<b>34560-701</b>	<b>34560-801</b>	–
Screw, M4 x 14, PU 100 pieces, for assembly of horizontal rails on side panels		<b>24560-130</b>	<b>24560-130</b>	<b>24560-130</b>	<b>24560-130</b>	<b>24560-130</b>	<b>24560-130</b>
Bolt, 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>
Perforated rail for connector mounting with insulation strip see page		6.33	6.33	–	–	–	–
Z-rail for connector mounting without insulation strip see page		6.33	6.33	–	–	–	–
Insulation strips see page		–	–	6.32	6.32	–	–
Threaded inserts see page		6.32	6.32	6.32	6.32	6.32	6.32

1) SPQ (standard pack quantity): Order 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 L 7.5 kg

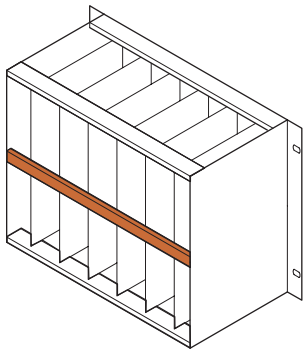



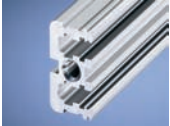


### Note

- 1000 mm version without M4 thread in end without print

# Subracks - europac PRO ServicePLUS

## Horizontal rails rear, middle

### Order Information

 <p>06108090</p>	<p><b>For indirect backplane mounting, with insulation strip</b></p>  <p>06197016</p> <p><b>Type ST</b></p>  <p>06197016</p> <p>Al extrusion, finish anodised, conductive contact surface; without marking</p> <p><b>1 piece (SPQ 10)<sup>1)</sup></b></p>	<p><b>For direct backplane mounting</b></p>  <p>06197017</p> <p><b>Type VT</b></p>  <p>06197017</p> <p>Al extrusion, finish anodised, conductive contact surface; without marking</p> <p><b>1 piece (SPQ 10)<sup>1)</sup></b></p>	<p><b>For direct mounting of connectors in accordance with EN 60603-2 (DIN 41612)</b></p>  <p>06197018</p> <p><b>Type MZ</b></p>  <p>06197018</p> <p>Al extrusion, finish anodised, conductive contact surface; without marking</p> <p><b>1 piece (SPQ 10)<sup>1)</sup></b></p>																																																						
	<table border="1"> <thead> <tr> <th>Usable length HP</th> <th>Length mm</th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>20</td> <td>106.68</td> <td><b>34561-020</b></td> <td><b>34561-120</b></td> <td><b>34561-220</b></td> </tr> <tr> <td>28</td> <td>147.32</td> <td><b>34561-028</b></td> <td><b>34561-128</b></td> <td><b>34561-228</b></td> </tr> <tr> <td>40</td> <td>208.28</td> <td><b>34561-040</b></td> <td><b>34561-140</b></td> <td><b>34561-240</b></td> </tr> <tr> <td>42</td> <td>218.44</td> <td><b>34561-042</b></td> <td><b>34561-142</b></td> <td><b>34561-242</b></td> </tr> <tr> <td>63</td> <td>325.12</td> <td><b>34561-063</b></td> <td><b>34561-163</b></td> <td><b>34561-263</b></td> </tr> <tr> <td>84</td> <td>431.80</td> <td><b>34561-084</b></td> <td><b>34561-184</b></td> <td><b>34561-284</b></td> </tr> <tr> <td>–</td> <td>1000</td> <td><b>34561-001</b></td> <td><b>34561-101</b></td> <td><b>34561-201</b></td> </tr> <tr> <td>Screw, M4 x 14, PU 100 pieces, for assembly of horizontal rails on side panels</td> <td></td> <td><b>24560-130</b></td> <td><b>24560-130</b></td> <td><b>24560-130</b></td> </tr> <tr> <td>Insulation strips see page</td> <td></td> <td>6.32</td> <td>–</td> <td>–</td> </tr> <tr> <td>Threaded inserts see page</td> <td></td> <td>6.32</td> <td>6.32</td> <td>6.32</td> </tr> </tbody> </table>	Usable length HP	Length mm				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 assembly of horizontal rails on side panels		<b>24560-130</b>	<b>24560-130</b>	<b>24560-130</b>	Insulation strips see page		6.32	–	–	Threaded inserts see page		6.32	6.32	6.32	
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20	106.68	<b>34561-020</b>	<b>34561-120</b>	<b>34561-220</b>																																																					
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1) SPQ (standard pack quantity): Order 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 L 7.5 kg

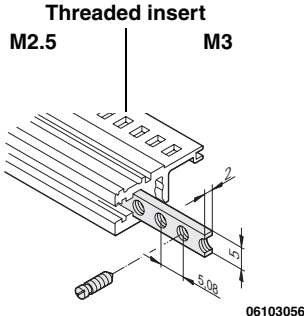
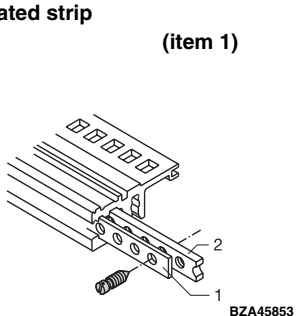
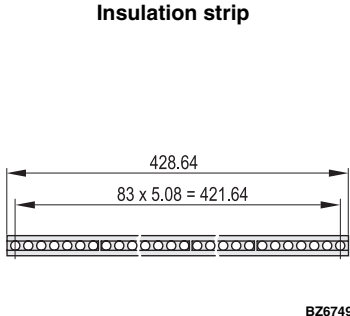
### Note

- All horizontal rails without print
- 1000 mm version without M4 thread in end

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

## Threaded inserts, perforated strips, insulation strips

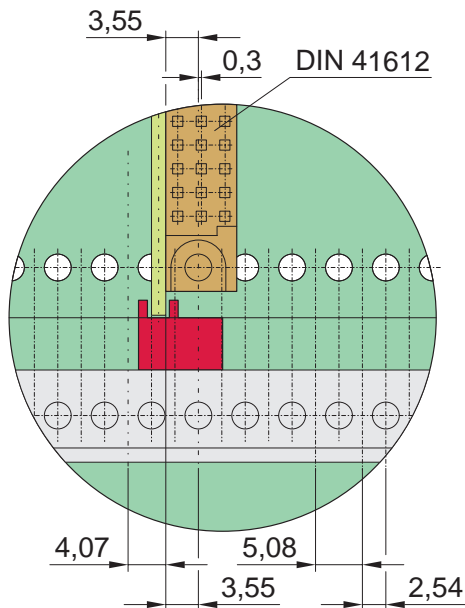
### Order Information

Usable length HP	Threaded insert		Perforated strip		Insulation strip	
	M2.5	M3	(item 1)			
	 <p>06103056</p>		 <p>BZA45853</p>		 <p>BZ6749</p>	
	required for assembly of front panel on horizontal rail; please use collar screw 12.3 mm, see page 6.68		for centring of shielded plug-in units, AI, 1 mm, please order grub screw for fixing separately		for insulated assembly of backplane	
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	106.68	<b>34561-320</b>	106.48	<b>30845-189</b>	101.50	<b>24560-820</b>
28	147.32	<b>34561-328</b>	147.12	<b>30845-197</b>	144.20	<b>24560-828</b>
40	208.28	<b>34561-340</b>	208.08	<b>30845-209</b>	205.12	<b>24560-840</b>
42	218.44	<b>34561-342</b>	218.24	<b>30845-211</b>	210.40	<b>24560-842</b>
63	325.12	<b>34561-363</b>	324.92	<b>30845-232</b>	316.88	<b>24560-863</b>
84	431.80	<b>34561-384</b>	431.60	<b>30845-253</b>	428.64	<b>24560-884</b>
196	1000.00	<b>34565-196</b>	1000.00	<b>34565-396</b>		–
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		–		–		–

1) SPQ (standard pack quantity): Order 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) Order no. includes one packing unit (PU); delivery is exclusively made in PU

## 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, ...).

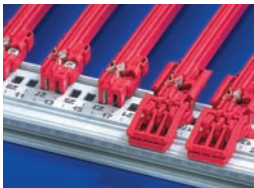
Guide rails for standard applications are 2 HP wide. Guide rails with coding (e.g. for CompactPCI or VME64bus applications) are 4 HP wide. Groove widths are 2 mm and 2.5 mm.

The guide rails are clipped into the rectangular cut-outs of the horizontal rails. They can be additionally bolted to the horizontal rail (type H only) for higher shock and vibration requirements. The HP marking on the horizontal rail (28 HP and above) allows the rails to be simply fitted in the correct position (position of sub-assembly = "number in viewing window" or in front of the arrow marking on the guide rails).

### Application



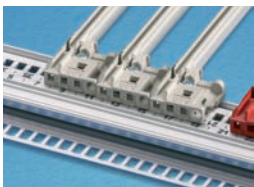
06102001



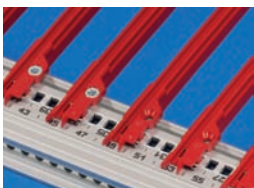
06102002



06102005



06106004



06104009

### Applications for guide rails

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

For boards without own front panel  
(type: accessories or robust version)

For CompactPCI or VME64x plug-in units  
(type: IEEE with coding; frame-type plug-in units may not be installed)

For drive unit plug-in units or boards of 4.4" (111.7 mm) height (type 4.4")

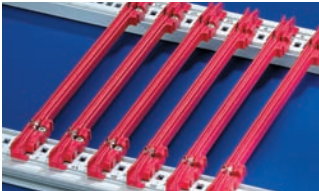
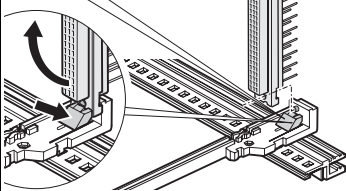
Accessories:

- ESD clips
- Keying/coding pegs
- PCB retainers

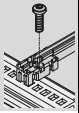
# Subracks - *europac* **PRO** Service**PLUS**

## 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		
- can be clipped into Al extruded horizontal rails - into 1.5 mm thick plates			Standard		
Storage temperature from -40 °C ... 130 °C			DIN connector mounting as standard		
					
					
			up to 220 mm length, PBT, UL 94 V-0; L 280 mm length, multi-part, end piece PBT, UL 94 V-0, middle part Al extrusion		
			PBT, UL 94 V-0		
			PBT, UL 94 V-0, connector is clipped directly onto the guide rails, only suitable for euroboards 100 x 160 mm or 100 x 220 mm		
Board lengths mm	Groove width mm	Colour mm	PU 10 pieces <sup>2)</sup>	1 piece (SPQ 50) <sup>1)</sup>	PU 1 pair
70	2	red	–	<b>34579-230</b>	–
70	2	grey	–	<b>34579-231</b>	–
160	2	red	<b>24560-351</b>	<b>64560-001</b>	<b>64560-074</b>
220	2	red	<b>24560-353</b>	<b>64560-002</b>	<b>64560-075</b>
280	2	red	<b>24560-379</b>	–	–
340	2	red	<b>24560-380</b>	–	–
160	2.5	red	–	<b>64560-096</b>	–
220	2.5	red	–	<b>64560-098</b>	–

### Accessories

Retention screw, PU 100 pieces		<b>24560-141</b>
ESD clip, PU 50 pieces		<b>24560-255</b>

1) SPQ (standard pack quantity): Order 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) Order no. includes one packing unit (PU); delivery is exclusively made in PU

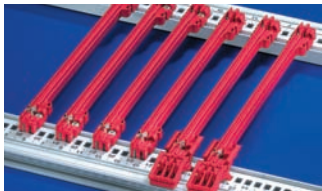
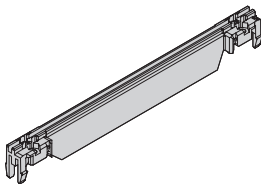
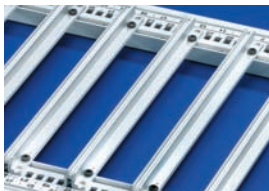
Description of accessories see from page 6.41



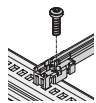
# Subracks - *europac* PRO ServicePLUS

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

### Order Information

<b>Assembly</b> - can be clipped into Al extruded horizontal rails - into 1.5 mm thick plates  <b>Storage temperature</b> from -40 °C ... 130 °C			<b>"Accessories"</b>		<b>Guide rails type</b>		<b>"Accessories" strengthened</b>	<b>For heavy modules, Al extrusion, silver, robust version</b>
			 up to 220 mm length, PBT, UL 94 V-0; L 280 mm length, multi-part, end piece PBT, UL 94V-0, middle part Al extrusion		 PBT, UL 94 V-0; with additional centre materials to strength guide rails		 Al extrusion; is screwed to horizontal rail "heavy" with retention screws	
<b>Board lengths</b>	<b>Groove width</b>	<b>Colour</b>	<b>PU 10 pieces<sup>2)</sup></b>	<b>1 piece (SPQ 50)<sup>1)</sup></b>	<b>1 piece (SPQ 50)<sup>1)</sup></b>	<b>1 piece (SPQ 10)<sup>1)</sup></b>		
100	2	red	–	<b>64560-082</b>	–	–	–	–
160	2	red	<b>24560-373</b>	<b>64560-005</b>	<b>64560-076</b>	–	–	–
160	2	grey	–	<b>64560-055</b>	–	<b>34562-881</b>	–	–
220	2	red	<b>24560-374</b>	<b>64560-006</b>	<b>64560-078</b>	–	–	–
220	2	grey	–	<b>64560-166</b>	–	<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 	<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>	–
Board locking, red, PU 10 pieces	<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>	–
Identification strips for board handle, red, PU 1 sheet = 438 pieces	<b>60817-228</b>	<b>60817-228</b>	<b>60817-228</b>	–
Keying/coding	see page 6.40			–

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

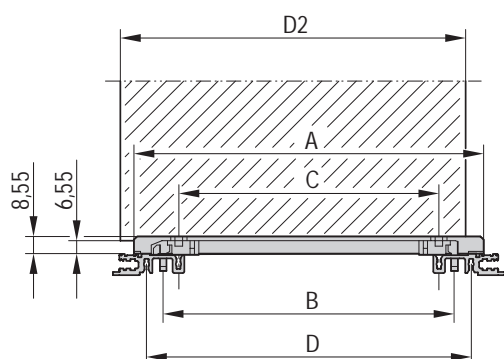
2) Order no. includes one packing unit (PU); delivery is exclusively made in PU

For description of accessories see from page 6.40

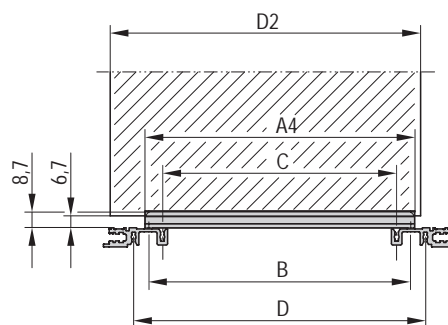
# Subracks - *europac* PRO ServicePLUS

## Dimension drawings of guide rails

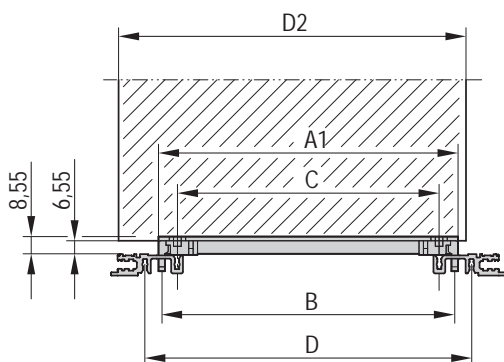
Standard



Robust version

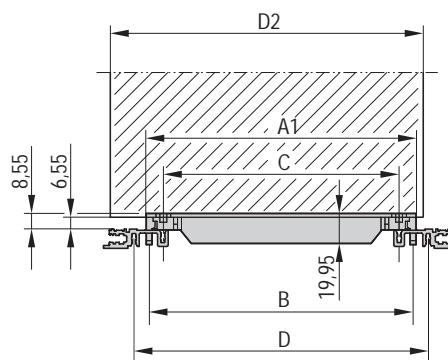


For accessories



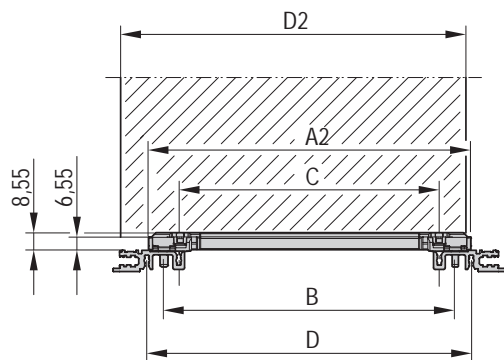
bza45808

For accessories, strengthened



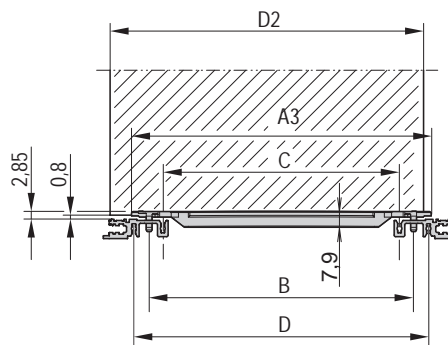
06105074

CompactPCI, VME64x



bza45808

4.4" (111.7 mm)



bza46552

06105068

06105069

### Dimensions table

Board height L	Dimensions							
	A	A1	A2	A3	A4	B	C	D
mm	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

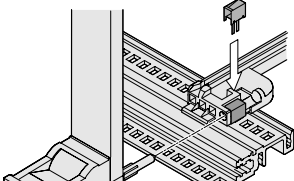
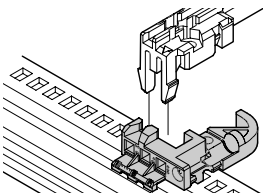
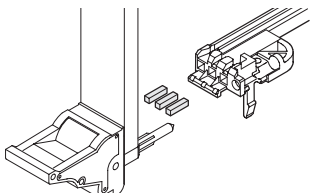
C: Pitch of guide rail retention screws

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	
			Keying/coding block for guide rails "accessories"	Keying/coding for CompactPCI, VME64x handles to IEEE 1011.10 and IEC 60297-3-103
		 <p>06103052</p> <p>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; it ensures conductive contact between the alignment pin of the insertion/extraction handle (IEL or IET handle) and the horizontal rail</p>	 <p>06103051</p> <p>PBT, UL 94 V-0, keying/coding block is clipped into the horizontal rail next to the guide rails; please order keying/coding pegs separately</p>	 <p>bga46316</p> <p>PC, UL 94 V0, RAL 7035; the keying/coding pegs (3 each) are inserted into the coding block or the handle</p>
<b>Assembly</b>	<b>Colour</b>	PU 50 pieces	1 piece (SPQ 50) <sup>1)</sup>	PU 100 pieces
At the top	red	–	<b>34579-232</b>	–
	grey	–	<b>34579-233</b>	<b>20817-501</b>
	silver	<b>24560-256</b>	–	–
At the bottom	red	–	<b>34579-234</b>	–
	grey	–	<b>34579-235</b>	<b>20817-501</b>
	silver	<b>24560-256</b>	–	–

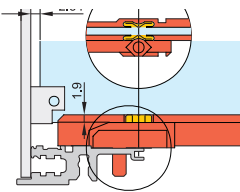
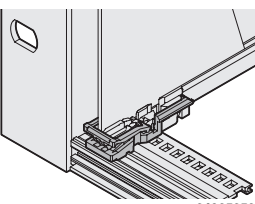
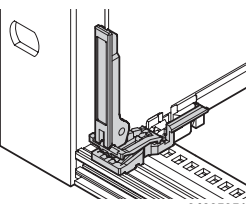
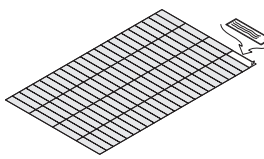
1) SPQ (standard pack quantity): Order number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple

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

# Subracks - *europac* PRO ServicePLUS

## Guide rail accessories

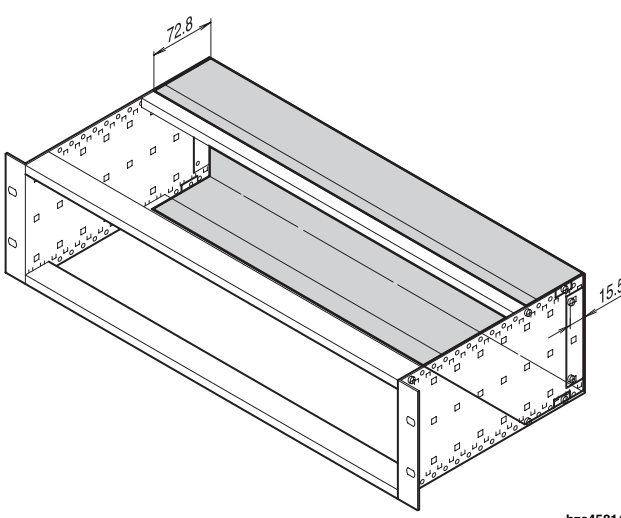
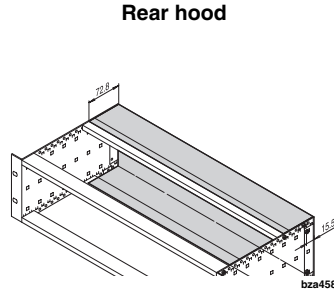
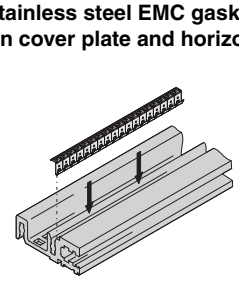
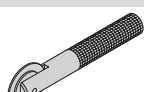
### Order Information

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

# Subracks - *europac* PRO ServicePLUS

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

### Order Information

 <p><b>Height</b></p> <table border="1"> <thead> <tr> <th>U</th> <th>Width</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> <p><b>Width</b></p> <p><b>HP</b></p> <p>bza45814</p>	U	Width	3	42	3	84	6	63	6	84	<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> <table border="1"> <thead> <tr> <th>1 piece</th> </tr> </thead> <tbody> <tr> <td><b>34561-750</b></td> </tr> <tr> <td><b>34561-752</b></td> </tr> <tr> <td><b>34561-763</b></td> </tr> <tr> <td><b>34561-764</b></td> </tr> </tbody> </table>	1 piece	<b>34561-750</b>	<b>34561-752</b>	<b>34561-763</b>	<b>34561-764</b>	<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>PU 10 pieces</th> <th>PU 100 pieces</th> </tr> </thead> <tbody> <tr> <td><b>24560-241</b></td> <td>—</td> </tr> <tr> <td><b>24560-245</b></td> <td>—</td> </tr> <tr> <td><b>24560-243</b></td> <td>—</td> </tr> <tr> <td><b>24560-245</b></td> <td><b>24560-246</b></td> </tr> </tbody> </table>	PU 10 pieces	PU 100 pieces	<b>24560-241</b>	—	<b>24560-245</b>	—	<b>24560-243</b>	—	<b>24560-245</b>	<b>24560-246</b>
U	Width																										
3	42																										
3	84																										
6	63																										
6	84																										
1 piece																											
<b>34561-750</b>																											
<b>34561-752</b>																											
<b>34561-763</b>																											
<b>34561-764</b>																											
PU 10 pieces	PU 100 pieces																										
<b>24560-241</b>	—																										
<b>24560-245</b>	—																										
<b>24560-243</b>	—																										
<b>24560-245</b>	<b>24560-246</b>																										
<p>Torx panhead screw, M4 × 6, St, zinc-plated, PU 100 pieces</p> <p>Assembly tool, for stainless steel EMC gasket (horizontal rails), 1 piece</p> 	<p><b>24560-135</b></p>	<p>—</p> <p><b>24560-271</b></p>																									

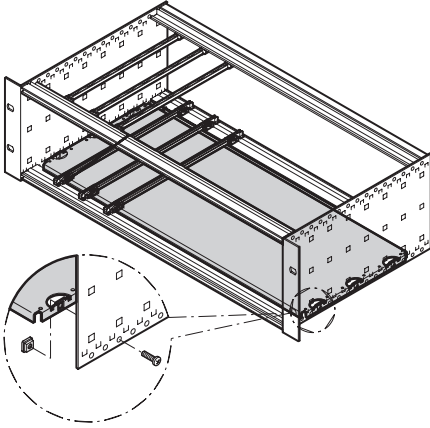
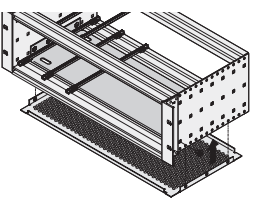
### Note

- Other dimensions of rear hood available on request

# Subracks - *europac* PRO ServicePLUS

## Mounting plates

### Order Information

 <small>bpa45875</small>			Mounting plate can be used in combination with cover plates	Mounting plate	
			 <small>bza45819</small>	for use without cover plate	Assembly strips for partial widths
Width HP	W mm	Board lengths mm	1 piece	1 piece	1 piece
28	146.88	160	<b>34563-001</b>	<b>34562-745</b>	<b>30840-021</b>
28	146.88	220	<b>34563-009</b>	<b>34562-749</b>	<b>30840-033</b>
28	146.88	160	–	<b>34562-753</b>	30840-045
28	146.88	220	–	<b>34562-757</b>	<b>30840-057</b>
42	217.99	160	<b>34563-002</b>	<b>34562-746</b>	<b>30840-021</b>
42	217.99	220	<b>34563-014</b>	<b>34562-750</b>	<b>30840-033</b>
42	217.99	160	–	<b>34562-754</b>	30840-045
42	217.99	220	–	<b>34562-758</b>	<b>30840-057</b>
63	324.67	160	<b>34563-003</b>	<b>34562-747</b>	<b>30840-021</b>
63	324.67	220	<b>34563-019</b>	<b>34562-751</b>	<b>30840-033</b>
63	324.67	160	–	<b>34562-755</b>	30840-045
63	324.67	220	–	<b>34562-759</b>	<b>30840-057</b>
84	431.35	160	<b>34563-004</b>	<b>34562-748</b>	<b>30840-021</b>
84	431.35	220	<b>34563-024</b>	<b>34562-752</b>	<b>30840-033</b>
84	431.35	160	–	<b>34562-756</b>	30840-045
84	431.35	220	–	<b>34562-760</b>	<b>30840-057</b>
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; M4 square nut, St, zinc-plated, 10 pieces)			<b>24560-184</b>	<b>24560-184</b>	–
Assembly kit for assembly strips of mounting plate Torx screw M2.5 x 5, St, zinc-plated, PU 100 pieces			–	–	<b>24560-146</b>

### Note

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