

CONNECT AND PROTECT

**EuropacPRO
Rugged**

05/2025

Subracks – EuropacPRO Rugged

OVERVIEW

MAIN KATALOG

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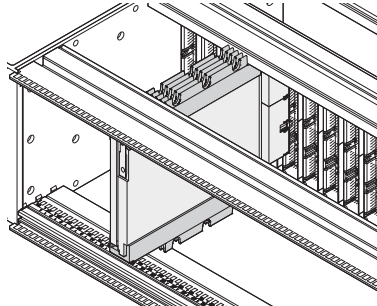


06112020



06112004

"rugged" horizontal rail with 3 hole fixing for increased stability (+60 % compared to 2 hole fixing of "heavy" horizontal rail)



06112052

Special adaptor rails allow conducted cooled assemblies to be fitted



Y-axis_001a1

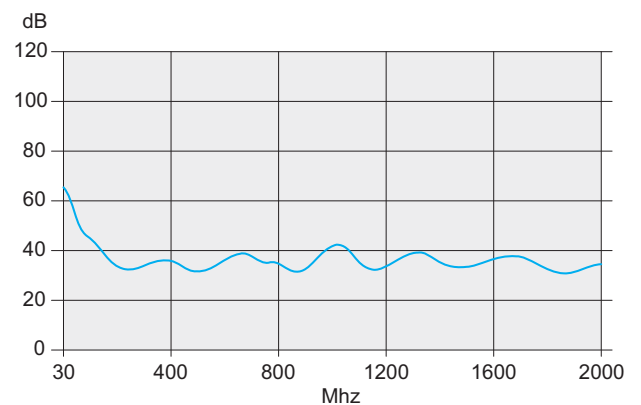
Shock and vibration resistant in all three axial directions

Standards/Approvals

- Internal and external dimensions in accordance with:
IEC 60297-3-100, -101, -102, -103, -104, -105,
IEEE 1101.1, IEEE 1101.10/11
- Type of protection IP 20, in accordance with IEC 60529
- EMC testing to IEC 61587-3
- Shock and vibration test report;
MIL 167, IEC 61587 DL 3,
MIL 810 G, MIL 901 D

Note

- Other finishes e.g. yellow chromated on request
- Subrack with telescopic slides can be adapted for cabinet mounting on request



06108081

EMC curve

Subracks – EuropacPRO Rugged

OVERVIEW

19" SUBRACKS

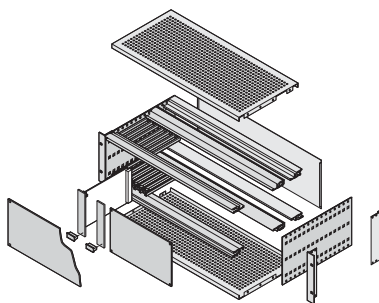
- Shock and vibration resistant up to 25 g
- Kits or individually configured subracks
- A product and accessory platform for the most different customers' requirements and applications
- Suitable for CompactPCI and VMEbus insertion and extractor handles
- EMC shielding can easily be retrofitted
- 3D PDF or CAD 3D data available for download



06112017

Kits

- All required parts are available under one part number, even partly assembled
- Most popular versions and dimensions available from stock
- For installed loads up to 25 kg
- Supplied as a space-saving flat pack



06105058

ServicePLUS individual configuration

- Single parts may individually be configured, respectively assembled on request (from quantity 1)
- Wide range of variants in height, width and depth
- Guide rails for different applications
- EMC shielding material to improve EMC performance
- Other accessories and assembly kits

ServicePLUS

e.g. modification (cut-outs)

e.g. downloads (CAD drawings, user manuals, test reports)

e.g. custom solutions (special depths, electromagnetically shielded applications)

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Subracks for mobile railway applications 6.70

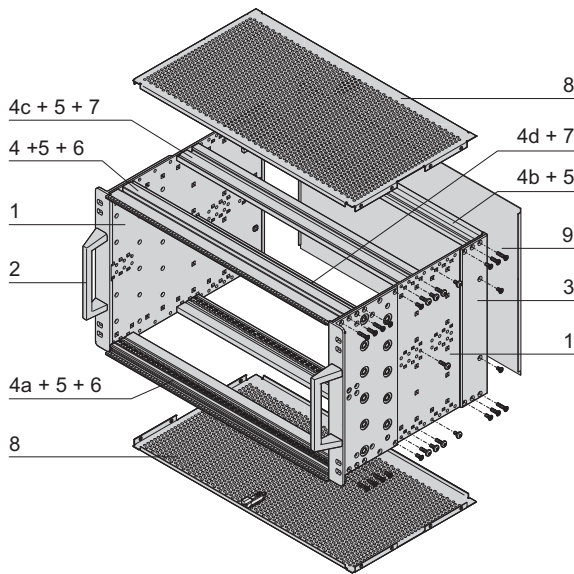
europacPRO for industrial applications 6.86

Subracks – EuropacPRO Rugged

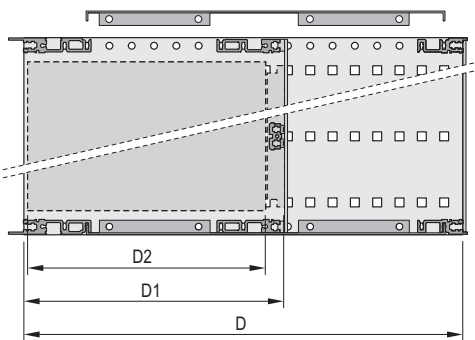
KIT, RUGGED, SHIELDED, FOR BACKPLANE MOUNTING



Illustration shows 3 U subrack



6 U



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



Rear horizontal rail for backplane mounting with insulation strip

06112017

06112055

06112054

- Subrack with robust side panel and horizontal rail, type R "rugged"
- Rear horizontal rail for backplane mounting with insulation strip
- Shielding typically 40 dB at 1 GHz, 30 dB at 2 GHz (as per VG 95373, part 15), on condition that the front is closed with sealed front panels
- Shock and vibration resistant to 25 g

DELIVERY COMPRISES (Kit)

Item	Qty 3 U	6 U	Description
1	2	2	Side panel type R, Al, 3 mm, clear passivated, with 19" support bracket 3.5 mm (tox-cold welded); for EMC gasketing (textile)
2	2	2	Front handle incl. fixing material kit
3	2	2	Rear corner profile for EMC gasketing (textile)
4	1	-	Front horizontal rail (R-KD)
4a	1	2	Front horizontal rail (R-LD)
4b	2	2	Rear horizontal rail (H-KD)
4c	2	2	Rear horizontal rail, centre (R-ST)
4d	-	1	Rear horizontal rail, centre (ST)
5	6	8	Threaded insert (pre-fitted)
6	2	2	Perforated strip (pre-fitted)
7	2	4	Insulation strip (pre-fitted)
8	2	2	EMC cover plate, rugged, with top cover locking
9	1	1	EMC rear panel
10	1	1	EMC gasketing material, fixing material kit, user manual

ORDER INFORMATION

Height U	Width HP	Depth D mm	Depth D1 mm	Part no.
3	84	295	175	24567-149
6	84	295	175	24567-449

Accessories

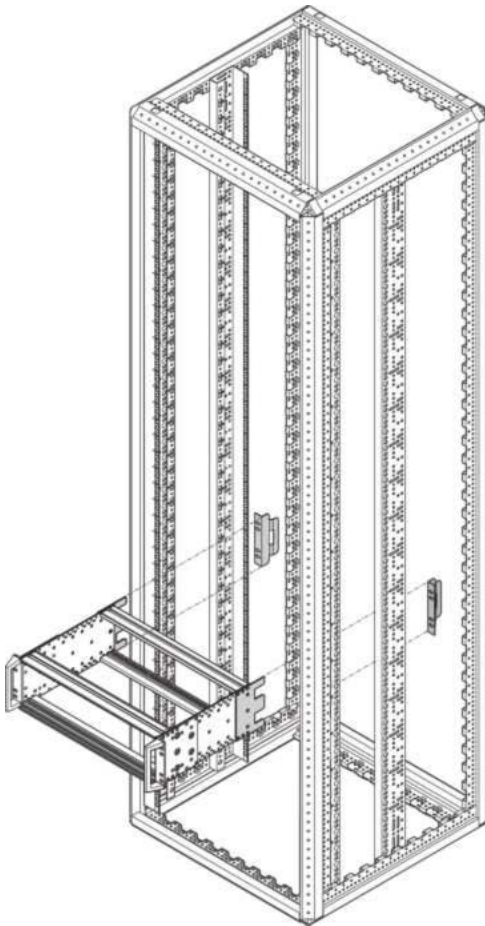
Guide rails, accessories, 160 mm deep PC, UL 94 V-0, red, groove width 2 mm, PU 10 pieces	24568-361
Torx panhead screw 2.5 x 9.3, zinc-plated, PU 100 pieces; torque max. 0.2 Nm	24560-141
ESD clip for guide rails PU 50 pieces	24560-255
Guide rail accessories for heavy PCBs, extra strong Al extrusion, groove width 2 mm, 160 mm deep, 1 piece (SPQ 10)	34562-881
Torx pan head screw 2.5 x 7.3, zinc flake coating, black, 100 pieces; torque max. 0.2 Nm	24560-157
Adaptor to accommodate conduction cooled assemblies (CCA) for VPX applications, 160 mm deep, PU 1 pair; includes fixing material kit	24566-004
Adaptor to accommodate conduction cooled assemblies (CCA) for CompactPCI applications, 160 mm deep, PU 1 pair; includes fixing material kit	24566-005
19" dual fixing materials kit suitable for a subrack with double fixing holes (bolts, washers and nuts), PU 1 kit	24566-109

NOTE

- Test reports online
- For further accessories see from page 6.19

Subracks – EuropacPRO Rugged

EUROPACPRO ADAPTER FOR REAR FIXING DL3 STANDARD IN A CABINET



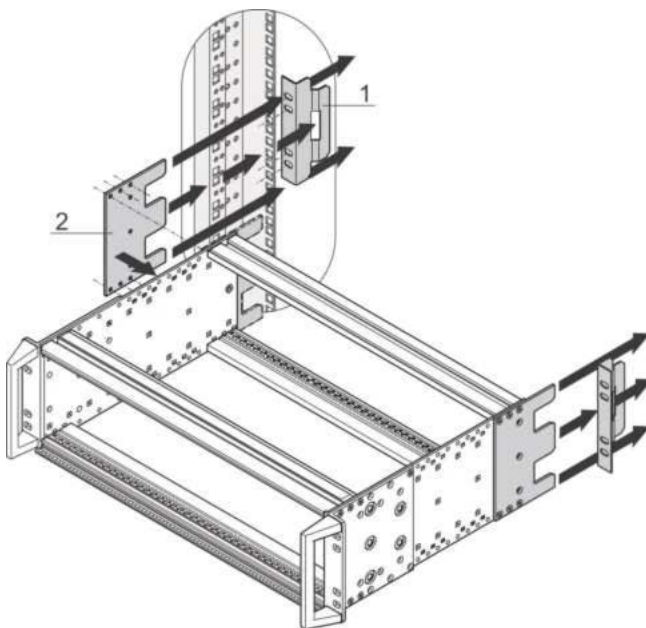
- Guarantees vibration resistance up to 25g as per IEC 61587 DL3
- Adapters for other cabinet models available on request
- Mounts onto rear of ruggedized subrack and to Varistar CP cabinet uprights

DELIVERY COMPRISES (Kit)

Item	Qty		Description
	3 U	6 U	
1	2	4	Bracket, St, 1.5 mm, AlZn; mounts to Varistar CP cabinet
2	2	2	Plate, Al, 3 mm, anodized; mounts to subrack
3	1	1	Fixing materials kit (19" dual fixing, adapter mounting, rugged subracks); user manual

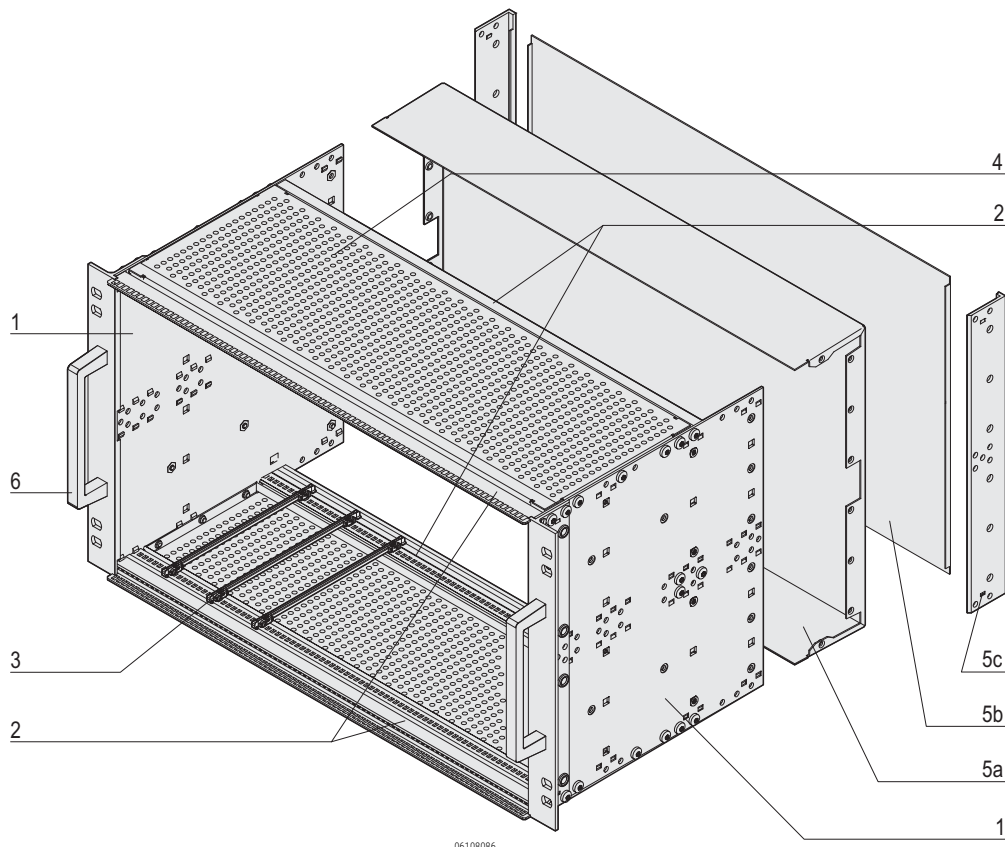
ORDER INFORMATION

Height	Part no.
U	
3	24568-198
6	24568-498



Subracks – EuropacPRO Rugged

OVERVIEW OF INDIVIDUAL COMPONENTS FOR SHIELDED OR UNSHIELDED SUBRACKS

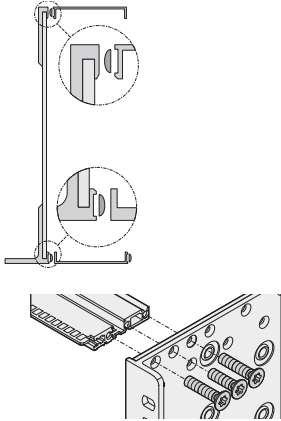

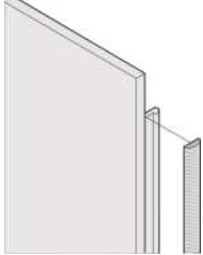
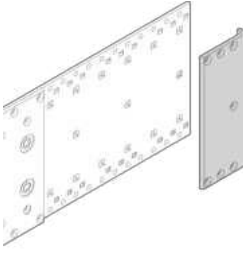
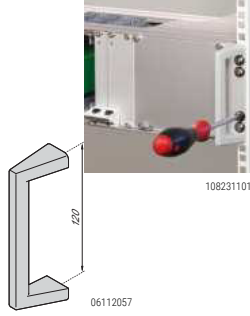


Item	Description	Description	page
Item 1	Side panels	Establish the height and depth of the subrack; Al, 3 mm, with universal hole positions for mounting of accessories	6.97
Item 2	Horizontal rails	Establish the width of the subrack; Al extrusion, with defined hole positions for guide rails, grooves for threaded inserts, M4 thread at front, functional rail shapes, basically differing with regard to their mechanical loading capacity: rugged loading up to 15 kg	6.98
Item 3	Guide rails	Guide rails act as interface between subracks and boards, for different board formats, are available in plastic or metal, optionally codable and optionally can be fitted with ESD clip to allow electrostatic discharge	6.105
Item 4	Cover plates	Provide mechanical protection and/or EMC shielding and are perforated	6.108
Item 5	Rear/front	Rear hood (5a) or front panel (5b) with corner profile (5c) 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	Handles can be mounted on the 19" brackets	6.97
–	EMC shielding (without illustration)	Extensive component range for specific shielding	6.110
–	Internal mounting (without illustration)	Universal assemblies, e.g. for horizontal and vertical mounting and for mounting plates	6.109 6.60

Subracks – EuropacPRO Rugged

SIDE PANEL TYPE R, EMC SEALING, CORNER PROFILE, FRONT HANDLE

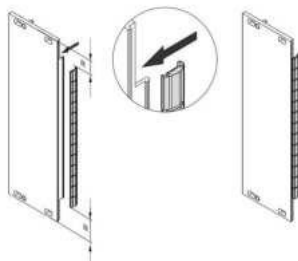
ORDER INFORMATION

		Side panel type R for textile gasket	EMC textile gasket		Corner profile, rugged	Front handle
 <p>06112054 06112056</p>		 <p>108230769</p> <p>Side panel, Al 3 mm, tox-cold welded with 19" Al bracket, 3.5 mm with handle hole, clear passivated, front anodised;</p> <p>please order front handles separately</p>	 <p>107887390</p> <p>Textile gasket, core: foam, sleeve textile cladding with CuNi coating, UL 94 V-0,</p> <p>temperature range</p> <p>-40°C to +70 °C -40°C to +85 °C</p>		 <p>11043486</p> <p>Al extrusion, 3 mm, finish clear passivated; with lateral grooves for EMC stainless steel gasket; rear hood cannot be used simultaneously</p>	 <p>108231101</p> <p>06112057</p> <p>Die-cast Al profile, powder-coated, RAL 9006; load-carrying capacity 30 kg, fixing material kit with Screw safety lacquer</p>
Height U	Depth mm		PU 10 pieces	PU 10 pieces	PU 1 pair	PU 1 kit
3	175	24568-145	21101-853	21102-853	24566-199	24566-010
3	235	24568-147				
3	275	24568-143				
3	277.75	24568-144				
3	295	24568-149				
3	355	24568-151				
6	175	24568-445	21101-855	21102-855	24566-499	24566-010
6	235	24568-447				
6	275	24568-443				
6	277.75	24568-444				
6	295	24568-449				
6	355	24568-451				
CompactPCI Corner profile						
3	275	24568-143	21101-853	21102-853	24566-197	24566-010
6	275	24568-443	21101-855	21102-855	24566-497	

Fixing material kits see page 6.103

EMC gasket stainless steel

- Easy mounting by clipping the gasket onto the right front panel bracket
- Temperature Range: -200 bis +160°C



- 1 kit, EMC stainless steel gasket, for U-shaped front panel, 3U, 10x
- 1 kit, EMC stainless steel gasket, for U-shaped front panel, 3U, 100x
- 1 kit, EMC stainless steel gasket, for U-shaped front panel, 6U, 10x
- 1 kit, EMC stainless steel gasket, for U-shaped front panel, 6U, 100x

21102-105
21102-106
21102-107
21102-108

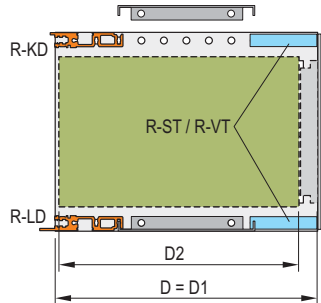
SIDE PANEL, TYPE R

- For high mechanical demands up to 25 g (vibration resistance, shock and vibration requirements to e.g. IEC 61587-DL 3)
- 19" bracket is fixed firmly to side panel (tox-cold welded)
- Height 3 U and 6 U
- Depths 175, 235, 275, 277.75, 295 and 355 mm
- EMC shielding concept for front/rear with EMC textile gasket
- Other dimensions on request

Subracks – EuropacPRO Rugged

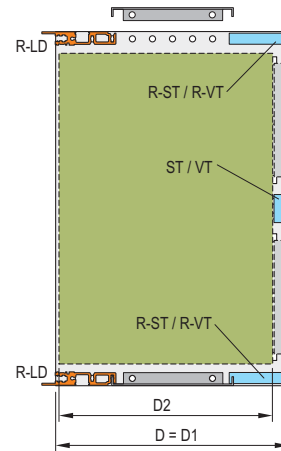
MOUNTING POSITION OF HORIZONTAL RAIL/CENTRAL RAILS

3 U (board depth 160, 220, 280 mm)



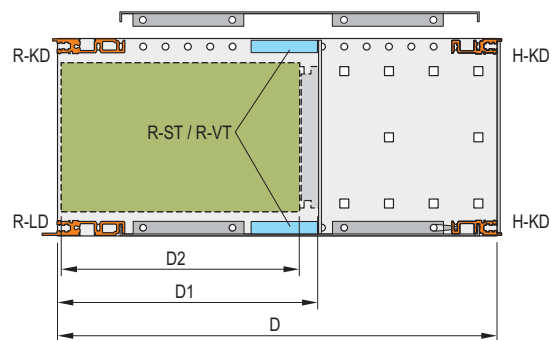
06112061

6 U (board depth 160, 220, 280 mm)

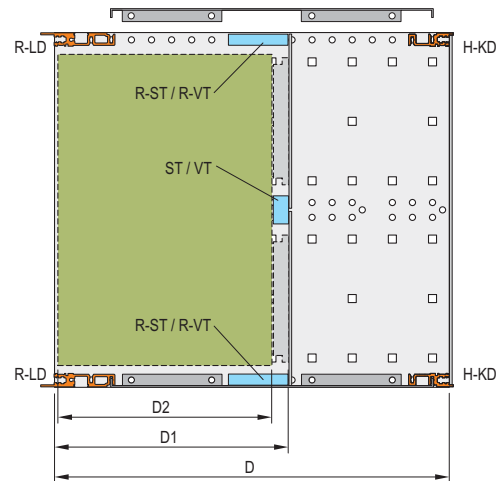


06112062

3 U (board depth 160, 220, 280 mm)



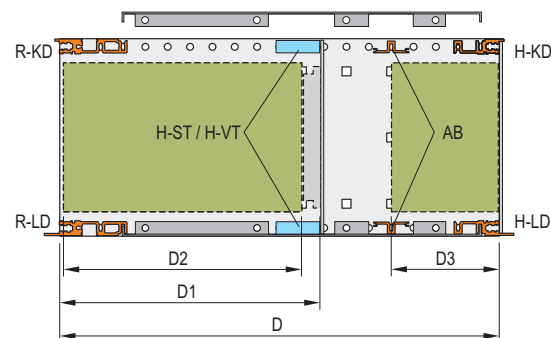
6 U (board depth 160, 220, 280 mm)



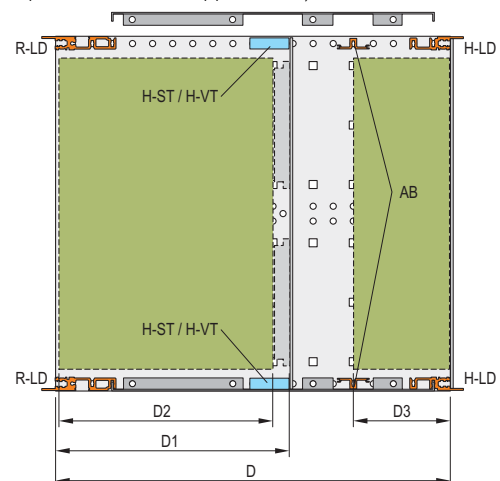
06112063

06112064

3 U (for CompactPCI/VME64x applications)



6 U (for CompactPCI/VME64x applications)



06112065

06112066

Horizontal rails

R-ST



06112070

R-VT



06112071

H-ST



06112072

H-VT



06112073

ST



06112074

VT



06112075

Subracks – EuropacPRO Rugged

FRONT HORIZONTAL RAILS

ORDER INFORMATION

		With long lip for insertion/ extraction of CompactPCI and VME64x boards	With long lip for insertion/ extraction of CompactPCI and VME64x boards	With short lip	With short lip
 <p>bza44980</p> <p>With HP markings from 28 HP, Al extrusion, anodised finish, conductive contact surface</p>		<p>"rugged" Type R-LD long lip</p>  <p>06112004</p> <p>Al extrusion, anodised finish, conductive contact surface, with HP markings</p>	<p>"heavy" Type H-LD long lip</p>  <p>06197009</p> <p>Al extrusion, anodised finish, conductive contact surface, with HP markings</p>	<p>"rugged" Type R-KD short lip</p>  <p>06112013</p> <p>Al extrusion, anodised finish, conductive contact surface, with HP markings</p>	<p>"heavy" Type H-KD short lip</p>  <p>06197008</p> <p>Al extrusion, anodised finish, conductive contact surface, with HP markings</p>
Usable length HP	Length mm	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾
20	106.68	34566-320	34560-320	34566-220	34560-220
28	147.32	34566-328	34560-328	34566-228	34560-228
40	208.28	34566-340	34560-340	34566-240	34560-240
42	218.44	34566-342	34560-342	34566-242	34560-242
63	325.12	34566-363	34560-363	34566-263	34560-263
84	431.80	34566-384	34560-384	34566-284	34560-284
–	1000	34566-301	34560-301	34566-201	34560-201
<p>Cover strips to cover the horizontal rail perforations Al, untreated, 0.8 mm, length 431.5 mm, 1 piece (SPQ 10)</p> 		34566-184	–	34566-184	–
Threaded inserts see page		6.104	6.104	6.104	6.104
Fixing material kits see page		6.103	6.103	6.103	6.103

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

"heavy" load > 7.5 kg; "rugged" load > 15 kg;

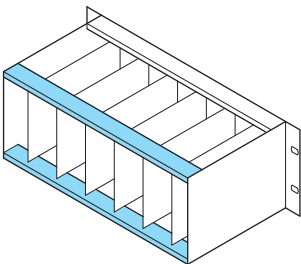
NOTE

- 1000 mm version without M4 thread to front, without printing and without notch for 19"-bracket
- EMC gasket see page 6.56
- For further horizontal rails see page 6.29

Subracks – EuropacPRO Rugged

REAR HORIZONTAL RAILS

ORDER INFORMATION

		For indirect backplane fixing with insulation strip		For direct backplane fixing		For direct fixing of connectors in accordance with EN 60603-2 (DIN 41612)
 <						

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
"heavy" load > 7.5 kg; "rugged" load > 15 kg;

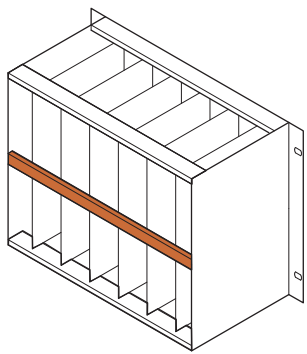






NOTE

- 1000 mm version without M4 thread to front, without printing and without notch for 19"-bracket
- EMC gasket see page 6.56
- For further horizontal rails see page 6.29

Subracks – EuropacPRO Rugged

REAR HORIZONTAL RAILS, CENTRE, FOR 6 U

ORDER INFORMATION

		For indirect backplane fixing with insulation strip	For direct backplane fixing	For direct fixing of connectors in accordance with EN 60603-2 (DIN 41612)
 06108090		 04400001 Type ST  06197016 Al extrusion, finish anodised, conductive contact surface; without markings	 04400002 Type VT  06197017 Al extrusion, finish anodised, conductive contact surface; without markings	 04400003 Type MZ  06197018 Al extrusion, finish anodised, conductive contact surface; without markings
Usable length HP	Length mm	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾
20	106.68	34561-020	34561-120	34561-220
28	147.32	34561-028	34561-128	34561-228
40	208.28	34561-040	34561-140	34561-240
42	218.44	34561-042	34561-142	34561-242
63	325.12	34561-063	34561-163	34561-263
84	431.80	34561-084	34561-184	34561-284
–	1000	34561-001	34561-101	34561-201
Insulation strips see page		6.104	–	–
Threaded inserts see page		6.104	6.104	6.104
Fixing material kits see page		6.103	6.103	6.103

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
 "heavy" load > 7.5 kg; "rugged" load > 15 kg;

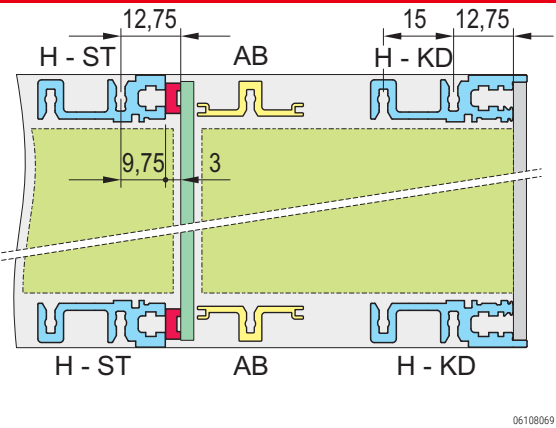




NOTE

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

Subracks – EuropacPRO Rugged

HORIZONTAL RAILS (TYPE AB) FOR REAR I/O APPLICATIONS

ORDER INFORMATION

		For CompactPCI in rear I/O area	For CompactPCI in rear I/O area with notch
 <div>06108069</div>		 Type AB  <div>06108009</div> <div>06197019</div> <p>Al extrusion, finish anodised, conductive contact surface; horizontal rail type AB (AB = support) is required to fix the guide rails for the 80 mm rear I/O boards; without markings</p>	 Typ AB, with notch  <p>Al extrusion, finish anodised, conductive contact surface; horizontal rail type AB (AB = support) is required to fix the guide rails for the 80 mm rear I/O boards; without markings</p>
Usable length HP	Length mm	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾
20	106.68	34561-520	
28	147.32	34561-528	
40	208.28	34561-540	
42	218.44	34561-542	34579-042
63	325.12	34561-563	
84	431.80	34561-584	34579-040
–	1000	34561-501	
Fixing material kits see page		6.103	6.103









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
 "heavy" load > 7.5 kg; "rugged" load > 15 kg;

NOTE

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

Subracks – EuropacPRO Rugged

SCREWS OVERVIEW

	Description	Material	Dimension	Qty/PU	Part no.
 137813741	Countersunk screw, with thread locking compound Application: Rugged side panel to horizontal rail; for area of tox-cold welded brackets and corner profiles except when guide rail is fitted to slot 1	Stainless steel	M4 x 18	100	24566-100
 137813739	Countersunk screw, with thread locking compound Application: Rugged side panel to horizontal rail; for area of tox-cold welded brackets and corner profiles if guide rail is fitted to slot 1	Stainless steel	M4 x 14	100	24566-101
 137813734	Panhead screw, with thread locking compound Application: Rugged side panel to horizontal rail; not for area of tox-cold welded brackets and corner profiles except when guide rail is fitted to slot 1	Stainless steel	M4 x 14	100	24566-102
 137813736	Panhead screw, with thread locking compound Application: Rugged side panel to horizontal rail; not for area of tox-cold welded brackets and corner profiles if guide rail is fitted to slot 1	Stainless steel	M4 x 10	100	24566-103
 137813737	Panhead screw, with thread locking compound Application: Rugged side panel to cover plate, not for area of tox-cold welded brackets and corner profiles	Stainless steel	M4 x 8	100	24566-104
 137813742	Torx countersunk screw , with thread locking compound Application: : Rugged side panel to cover plate, for area of tox-cold welded brackets and corner profiles	Stainless steel	M4 x 10	100	24566-106
 137813740	Torx countersunk screw, with thread locking compound Application: Rugged side panel to corner profile; in EMC-shielded subracks and to increase robustness	Stainless steel	M4 x 7	100	24566-105
 137813738	Square nut Application: Rugged side panel to corner profile; in EMC-shielded subracks and to increase robustness	Zinc-plated steel	M4	100	24560-140

19" Dual fixing material kit, page 6.104

24566-109

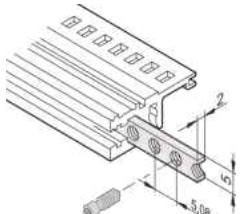
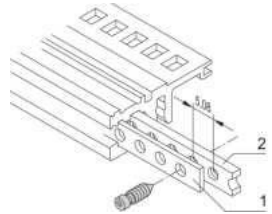
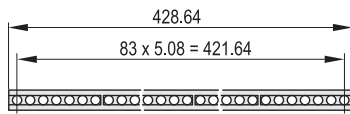
NOTE

- Stainless steel screws; with organic surface layer (silver)

Subracks – EuropacPRO Rugged

THREADED INSERTS, PERFORATED STRIPS, INSULATION STRIPS

ORDER INFORMATION

	Threaded insert		Perforated strip		Insulation strip		
	M2.5	M3	Item 1				
	<div><p>required for fixing the front panel to the horizontal rail; St, zinc-plated; use collar screw 12.3 mm, see page 6.66</p></div>		<div><p>for centring shielded plug-in units, Al, 1 mm, please order grub screw separately</p></div>		<div><p>for insulated mounting of backplane; PC, UL 94 V-0, grey</p></div>		
Usable length HP	Threaded insert Length mm	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	Perforated strip Length mm	1 piece (SPQ 10) ¹⁾	Insulation strip Length mm	PU 10 pieces
20	106.18	34561-320	–	106.48	30845-189	101.50	24560-820
28	146.82	34561-328	–	147.12	30845-197	144.20	24560-828
40	207.78	34561-340	–	208.08	30845-209	205.12	24560-840
42	217.94	34561-342	–	218.24	30845-211	210.40	24560-842
63	324.62	34561-363	–	324.92	30845-232	316.88	24560-863
84	431.30	34561-384	34561-484	431.60	30845-253	428.64	24560-884
196	1000.26	34565-196	–	1000.26	34565-396		–

Accessories

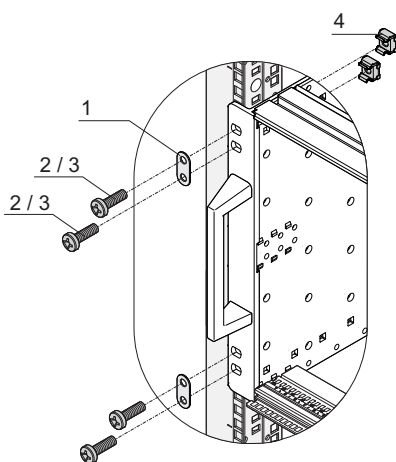
Grub screw M2.5 x 8, PU 100 pieces	21100-276	–	–	–	–	–
Grub screw M2.5 x 9, Torx 8, PU 100 pieces	–	–	–	21102-980	–	–
Grub screw M3 x 8, PU 100 pieces	–	21100-646	–	–	–	–

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

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

19" DUAL FIXING MATERIALS KIT



- For fixing a subrack with dual fixing holes to 19" mounting brackets (e.g. rugged and railroad subracks)

DELIVERY COMPRISES

Item	Qty	Description
1	4	Double washer, stainless steel
2	8	M6 x 16 (Torx 30 drive) + Nomel washer
3	8	M6 x 16 (Pozidrive) + Nomel washer
4	8	Cage nut KM6
1	4	User manual

ORDER INFORMATION

Description	Part no.
19" dual fixing materials kit	24566-109

Subracks – EuropacPRO Rugged

ADAPTOR TO ACCOMMODATE CONDUCTION COOLED ASSEMBLIES (CCA)


ORDER INFORMATION

Adaptor to accomodate conduction cooled assemblies (CCA) in subracks		
		
	Al die-cast, silver, can be screw-fixed, 0.8" pitch; suitable for heavy and rugged horizontal rails, incl. fixing material kit	
Board length mm	VPX PU 1 pair	CompactPCI PU 1 pair
160	24566-004	24566-005

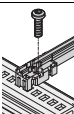
2) Part no. includes one packing unit (PU); delivery is exclusively made in PU

GUIDE RAILS FOR PLUG-IN UNITS AND FRAME TYPE PLUG-IN UNITS, ONE-PIECE, GROOVE WIDTH 2 MM AND 2.5 MM

ORDER INFORMATION

			For plug-in units and frame type plug-in units "Standard"	
Assembly Plastic guide rail - can be clipped into Al extruded horizontal rails - can be clipped into 1.5 mm thick plates Storage temperature from -40 °C ... 130 °C				
			up to 220 mm length, PC, UL 94 V-0; from 280 mm length, multi-piece, end piece PC, UL 94 V-0, central section Al extrusion	PC, UL 94 V-0
Board length mm	Groove width mm	Colour mm	PU 10 pieces ²⁾	1 piece (SPQ 50) ¹⁾
70	2	red	–	34568-230
70	2	grey	–	–
160	2	red	24568-361	64568-001
220	2	red	24568-362	64568-002
280	2	red	24568-379	–
340	2	red	24568-380	–
160	2.5	red	–	64568-096
220	2.5	red	–	64568-098

Accessories

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

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 6.107

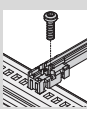



Subracks – EuropacPRO

GUIDE RAILS TYPE "ACCESSORY", ONE-PIECE, GROOVE WIDTH 2 MM AND 2.5 MM

ORDER INFORMATION

			Guide railsType Accessory		Guide railsType Accessory strengthened		for heavy modules, Al extrusion, silver, robust version
Assembly - can be clipped into Al extruded horizontal rails - can be clipped into 1.5 mm thick plates Storage temperature from -40 °C ... +130 °C Colors of Plastic Material red: RAL 3000 grey: RAL 7016							
			up to 280 mm length, PC, UL 94 V-0; > 280 mm length, multi-piece, end piece PC, UL 94 V-0, middle section Al extrusion		PC, UL 94 V-0, red; support beam of guide rails adds to strengthening		Al extrusion; is screwed to horizontal rail "heavy" with retention screws
Board length mm	Groove width mm	Colour	PU 10 pieces ²⁾		1 piece (SPQ 50)		1 piece (SPQ 10) ¹⁾
100	2	red	–		64568-082		–
160	2	red	24568-363		64568-005		–
160	2	grey/silver	–		64568-055		34562-881
220	2	red	24568-364		64568-006		–
220	2	grey/silver	–		64568-166		34562-882
280	2	red/silver	24568-381		–		34562-883
340	2	red/silver	24568-382		–		34562-884
400	2	red/silver	–		–		34562-885
160	2.5	red/silver	–		64568-100		34564-881
220	2.5	red/silver	–		64568-102		34564-882
280	2.5	red/silver	–		–		34564-883
340	2.5	silver	–		–		34564-884
400	2.5	silver	–		–		34564-885

Accessories

Retention screw, PU 100 pieces; torque max. 0.2 Nm		24560-141		24560-141		24560-141		24560-157
ESD clip, PU 50 pieces		24560-255		24560-255		24560-255		–
Board locking C, red, PU 10 pieces		24560-377		24560-377		24560-377		–
Board handle C, red, PU 10 pieces		24560-378		24560-378		24560-378		–
Identification strips for board handle, red, PU 1 sheet = 438 pieces		60817-228		60817-228		60817-228		–
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 – EuropacPRO Rugged

GUIDE RAILS FOR HEAVY ASSEMBLIES, COMPACTPCI, VME64X

ORDER INFORMATION

			For CompactPCI, VME64x with coding In accordance with IEEE 1101.10 and IEC 60297-3-103	Offset 0.1" for power supply units in accordance with IEEE 1101.10 and IEC 60297-3-103	For heavy modules, Al extrusion, silver, robust version
Assembly - can be clipped into Al extruded horizontal rails - can be clipped into 1.5 mm thick plates Storage temperature from -40 °C ... 130 °C			 124624426 One-piece for groove width 2 mm, PC, UL 94 V-0; Multi-piece for groove width 2.5 mm, end piece PC, UL 94 V-0, middle section Al extrusion	 124675998 One-piece for groove width 2 mm, PC, UL 94 V-0; For installation of power supplies in CompactPCI systems or plug-in units with SMD placement	 107888345 Al extrusion; is screwed to horizontal rail "heavy" with retention screws
Board length mm	Groove width mm	Colour mm	PU 10 pieces. ²⁾	PU 10 pieces. ²⁾	1 piece (SPQ 10) ¹⁾
70	2	red	24568-357	–	–
70	2	grey	24568-360	–	–
160	2	red	24568-356	–	–
160	2	grey	24568-358	–	34562-881
160	2	green	–	24568-359	–
220	2	grey	–	–	34562-882
220	2	green	–	–	34562-883
160	2.5	grey	–	–	34564-881
220	2.5	red	–	–	–
220	2.5	grey	–	–	34564-882
280	2.5	red	24568-331	–	–
280	2.5	grey	24568-341	–	34564-883

Accessories

ESD clips, PU 50 pieces	24560-255	–	–
ESD clips, for alignment pin, PU 50 pieces	24560-256	24560-256	–
Retention screw, PU 100 pcs.; torque max. 0.2 Nm	24560-141	24560-141	24560-157
Coding peg, PU 100 pieces	20817-501	20817-501	–

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 thereof

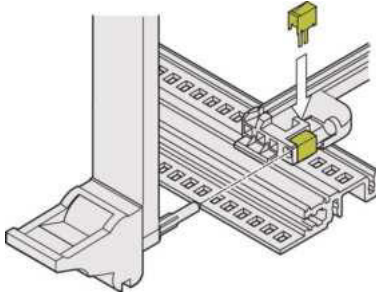
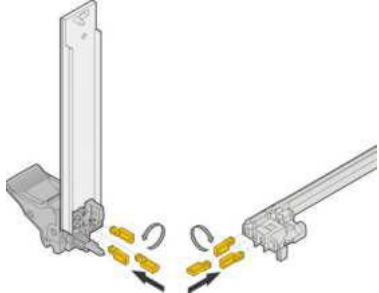
2) Order number includes one packaging unit (PU); delivery is exclusively made in PU

Description of accessories see from page 6.107

Subracks – EuropacPRO Rugged

GUIDE RAIL ACCESSORIES

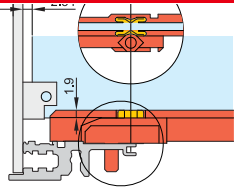
ORDER INFORMATION

	ESD clips, CompactPCI/VME 64 alignment pin for guide rails	Coding for plug-in components Keying/coding for CompactPCI, VME64x handles to IEEE 1011.10 and IEC 60297-3-103
	 <p>108230497</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; provides conductive contact between the guide pin of the inserter/extractor handle (IEL or IET handle) and the horizontal rail</p>	 <p>135276437</p> <p>Keying/coding peg, PC, 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/extraction 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.</p>
Assembly	. PU 50 pieces. ²⁾	
At the top/ at the bottom	24560-256	20817-501

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

GUIDE RAIL ACCESSORIES

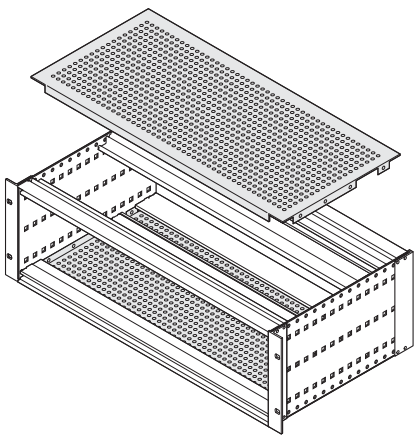
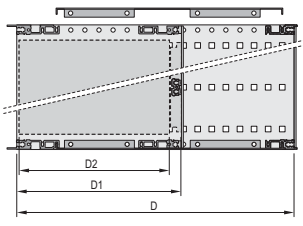
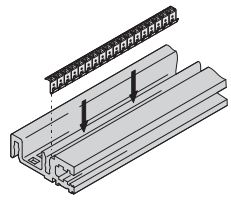
ORDER INFORMATION

	ESD clip for guide rails
	 <p>04503050</p> <p>Spring steel, tin-plated, ensures conductive contact between board and horizontal rail, on both the solder side and the component side</p>
Assembly	Colour silver PU 50 pieces
above/below	24560-255

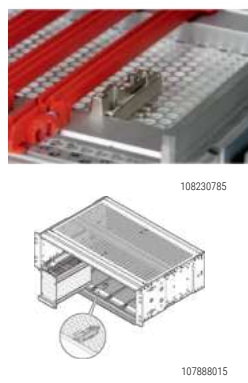
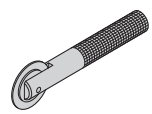
Subracks – EuropacPRO Rugged

COVER PLATES FOR BOLTING TO RUGGED SIDE PANEL

ORDER INFORMATION

			Cover plate for bolting to side panel	Stainless steel EMC gasket, between cover plate and horizontal rail	
 06197010			 06112054 Perforated Al plate, 1.2 mm, hole diameter 4.0 mm, passivated, perforation ratio 58 %, incl. retention screws; 4 stainless steel EMC contact strips per subrack are required for shielding, please order separately	 06106052 Stainless steel EMC gasket, clips into the horizontal rail and forms the contact with the cover plate; suitable for all horizontal rails	
Width HP	Depth D mm	Application	PU 1 pair	PU 10 pieces	PU 100 pieces
84	175	160 mm board depth (D2)	24568-004	24560-245	24560-246
84	235	220 mm board depth (D2)	24568-008		
84	295	280 mm board depth (D2)	24568-012		
84	275	160 mm board depth (D2) CompactPCI, 80 mm rear I/O	24568-032		
84	277.75	160 mm board depth (D2) VME, VME64, 80 mm rear I/O	24568-036		
84	295	160 mm board depth (D2), approx. 120 mm clearance behind backplane	24568-016		
84	355	220 mm board depth (D2), approx. 120 mm clearance behind backplane	24568-020		

Accessories

Cover Plate Fixing Kit  108230785 107888015 Cover plate latch, additional securing for rugged cover plate, PU 4 pieces			24566-007	–	–
Assembly tool, to fit EMC gasket, stainless steel, for horizontal rails, 1 piece 			–	24560-271	24560-271

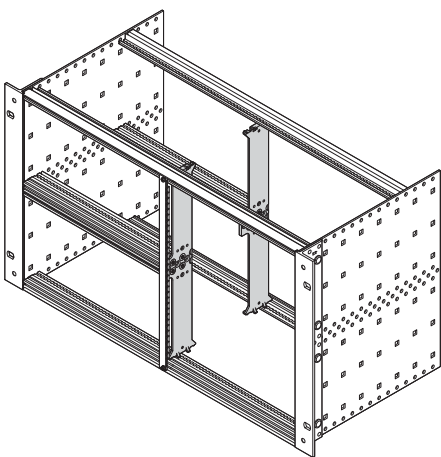
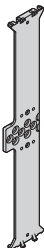
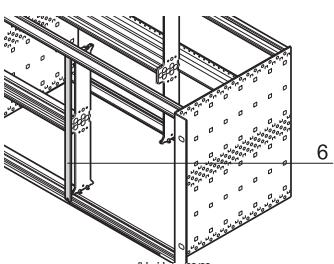
NOTE

- Cover plates without perforation available on request
- Mounting position of horizontal rails, see page 6.98

Subracks – EuropacPRO Rugged

COMBINED MOUNTING (6 U AND 2 X 3 U ONE ABOVE THE OTHER)

ORDER INFORMATION

	Rugged struts for combined mounting	Front panel for textile EMC gasket, 6 U, 2 HP . Item. 6.
 <p>06112076</p>	 <p>06112077</p> <p>6 U, die-cast zinc; fixing material kit</p>	 <p>bpa46550</p> <p>Al, 2.5 mm, U-profile with notch, 6 U, 2 HP</p>
Height U	PU 2 pieces	1 piece (SPQ 5) ¹⁾
6	24566-400	30849-140

Accessories

Pozidrive/slotted collar screw M2.5 x 12.3, St, nickel-plated, PU 100 pieces	–	21101-101
Pozidrive/slotted collar screw M2.5, black, zinc-plated, PU 100 pieces	–	21101-102
Washer 2.7 x 5 x 1, PA 6, PU 100 pieces	–	21101-121
Textile gasket, core: foam, sleeve: textile cladding with CuNi coating, UL 94 V-0, PU 10 pieces	–	21101-855

NOTE

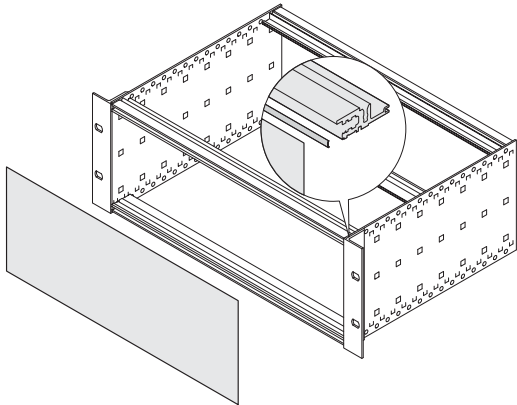
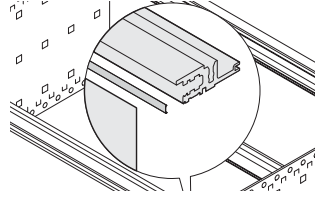
- Rugged horizontal rails in various lengths, see page 6.99

Subracks – EuropacPRO Rugged

SCHROFF

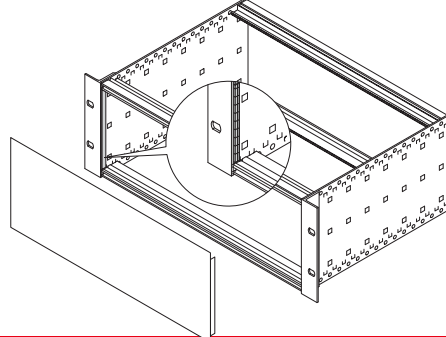

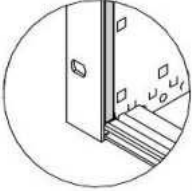
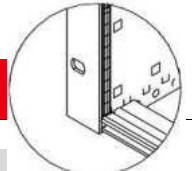
EMC GASKETS BETWEEN FRONT/REAR PANEL AND HORIZONTAL RAIL

ORDER INFORMATION

		Stainless steel EMC gasket between front panel/rear panel and horizontal rail	
		 <p>stainless steel; for front and rear horizontal rails (type VT)</p>	
Width HP	Depth mm	PU 10 pieces	PU 100 pieces
28	131.8	24560-229	–
42	202.9	24560-231	–
63	304.5	24560-233	–
84	416.6	24560-235	24560-236

EMC GASKETS BETWEEN FRONT PANEL AND 19" BRACKET/CORNER PROFILE

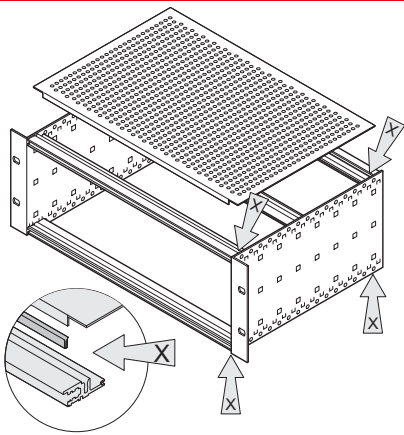
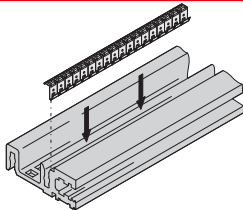
ORDER INFORMATION

		Textile EMC gasket between front panel/rear panel and 19" bracket/corner profile	
		 <p>Temperature. range -40°C to +70°C textile gasket, core: foam, sleeve: textile cladding with CuNi coating,UL 94 V-0,</p>	
Height U	Depth mm	PU 10 pieces	PU 100 pieces
3	97.5	21101-853	21101-854
6	232.5	21101-855	21101-856
		<p>Temperature. range -40°C to +85°C textile gasket, core: foam, sleeve: textile cladding with CuNi coating,UL 94 V-0,</p>	
Height U	Depth mm	PU 10 pieces	PU 100 pieces
3	97.5	21102-853	21102-854
6	232.5	21102-855	21102-856
		<p>Temperature. range -200°C to +160°C stainless steel gasket Easy mounting by clipping the gasket onto the right front panel bracket</p>	
Height U	Depth mm	PU 10 pieces	PU 100 pieces
3	97.5	21102-105	21102-106
6	232.5	21102-107	21102-108

Subracks – EuropacPRO Rugged

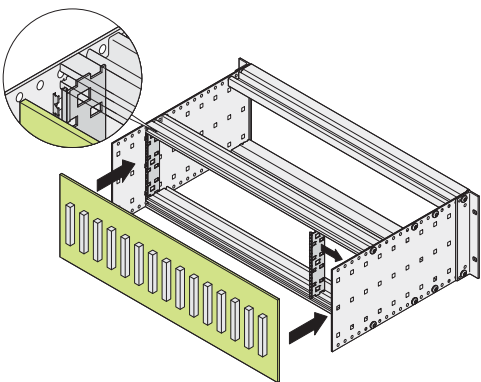
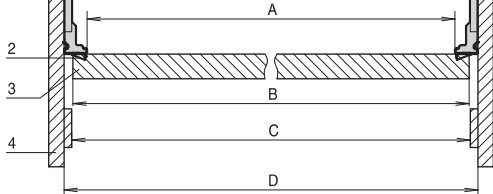
EMC GASKET BETWEEN HORIZONTAL RAIL AND COVER PLATE

ORDER INFORMATION

		Stainless steel EMC gasket, between cover plate and horizontal rail	
		 <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	PU 10 pieces	PU 100 pieces
42	202.9	24560-241	—
84	416.6	24560-245	24560-246
Assembly tool, to fit EMC gasket, stainless steel, for horizontal rails, 1 piece		24560-271	24560-271

EMC GASKET BETWEEN BACKPLANE AND SIDE PANEL

ORDER INFORMATION

		Stainless steel EMC gasket between backplane and side panel (depth-offset installation)	
		 <p>2 x support profile, Al extrusion, 2 x stainless steel EMC gasket; for vertical EMC shielding between depth-offset shielded backplane and side panel: dimensions for 84 HP A = 425.8 mm, B < 429.9 mm, C = 429.8 mm, D = 431.8 mm</p>	
Height U	Depth mm	PU 1 kit	
3	97.5	24561-199	
6	187.5	24561-499	
Torx countersunk screw M4 x 7, St, zinc-plated, PU 100 pieces		24566-105	
Square nut M4, St, zinc-plated, PU 100 piece		24560-140	

With appropriate design, the backplane can be used as shielded rear wall of the rack; in this case a rear horizontal rail (L-type VT or H-VT) must be used for deeper installation to ensure the horizontal contact.

For vertical contact the support profile can be fixed in the standard way to the europacPRO side panel (depth grid 30 mm)

Subracks – EuropacPRO

SCHROFF

PLATFORM-BASED STANDARD SOLUTIONS FOR INDIVIDUAL REQUIREMENTS

Practical technology without time-consuming assembly. The modular europacPRO product platform allows a wide range of possible applications with only a few components. The intelligent design of all components results in remarkably simple and fast management in assembly and components.

Simple assembly with europacPRO kits:

















06107001

Delivered in space-saving flat packs. The threaded inserts or EMC gasket (depending on selected kit) are already pre-mounted on the horizontal rail.

Two ways of reaching your desired product:

- Kits
- Individual configuration

Individual configuration:

	Side panel type F		19" bracket without handle holes		19" bracket with handle holes		19" bracket depth- adjustable		EMC sealing (St, stainless)		Rear angle		Side panel connection
													
	without 19" bracket, 4 x 2 mm (pre-drilled), please order 19" bracket and corner profile separately	with lateral grooves for EMC stainless steel gasket, A) serrations, rear side etched, front anodized	with lateral grooves for EMC stainless steel gasket, A) serrations, rear side etched, front anodized, please order front handle separately, see page 6.25	2 adaptor brackets, A) 2 mm, equipment support rail, height 35 mm, width 94 mm, depth 7.5 mm, pre-drilled, stainless steel, module support in subrack, power	inserted laterally into the slots of the front panel	A) serrations, surface (rear pre-drilled with lateral grooves for EMC stainless steel sealing, rear foot cannot be removed simultaneously)	On the cost, not assembling set, for joining two by two side panels (shown side and front)						
Height H	Depth mm	1 piece	PU 1 pair	PU 1 pair	PU 1 pair	PU 10 pieces	PU 1 pair	PU 4 pieces					
3	175	34560-183											
3	220	34560-187											
3	275	34579-300											
3	277.75	34579-003											
3	295	34560-189	34560-197	34560-198	34560-199	31101-705	34561-198	31101-954					
3	350	34560-191											
3	415	34560-193											
3	475	34560-195											

06109052

You design your subrack as you wish, then receive it fully assembled via our ServicePLUS assembly service (even for orders of just one). We can also carry out individual modifications and cut-outs; and when time is short can do so very fast via ServicePLUS express.

HORIZONTAL RAILS AND SIDE PANELS FOR DIFFERENT LOAD-CARRYING CLASSES



Light

06197007

Heavy

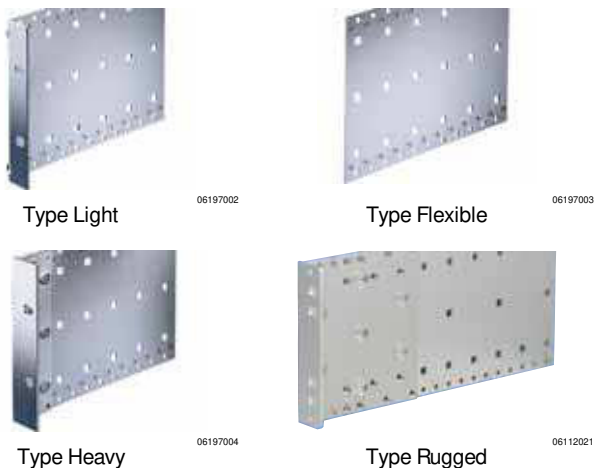
06197008

Rugged

06112004

Horizontal rails are available for three load classes:

- "light" (load up to approx. 7.5 kg)
- "heavy" (load > 7.5 kg)
- "rugged" (load 15 kg)



Type Light

06197002

Type Flexible

06197003

Type Heavy

06197004

Type Rugged

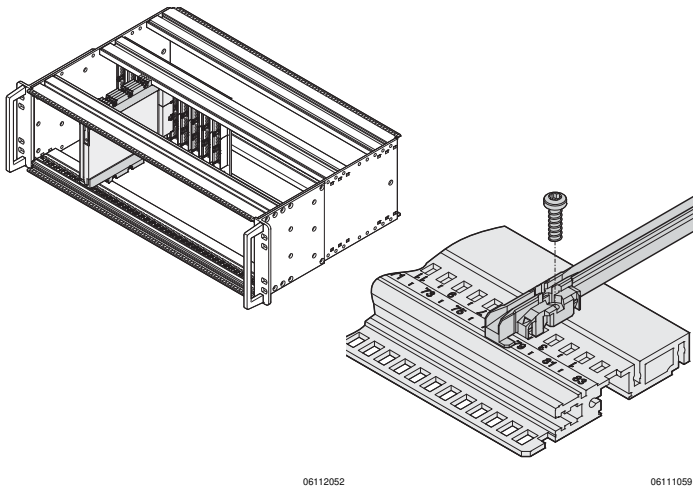
06112021

Side panels for 4 different load classes

- Light: low-cost version with built-in 19" mounting bracket
- Flexible: with separate, depth-adjustable 19" mounting bracket
- Heavy: with integrated, tox-cold welded 19" mounting bracket, e.g. for shock and vibration environments up to 5 g
- Rugged: with integrated, tox-cold welded 19" mounting bracket and higher material thicknesses for extreme mechanical stresses, e.g. for increased shock and vibration environments up to 25 g
- The combination of the 3 horizontal rail variants with the 4 types of side panel results in an almost unlimited variety of potential applications for various market requirements

Subracks – EuropacPRO

GUIDE RAILS FROM PLASTIC AND ALUMINIUM PROFILES



Guide rails form the interface between the subrack mechanics and the assemblies (boards, plug-in units, frame type plug-in units, drive unit modules, ...).

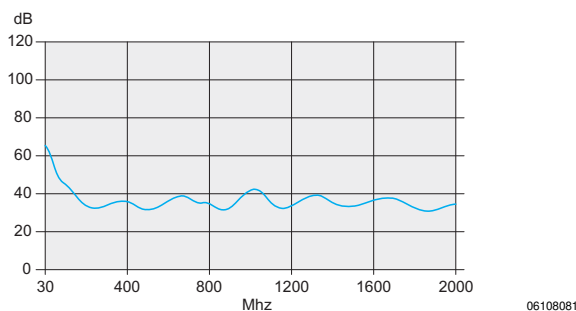
Robust snap-in fixings on the plastic rails assure a secure grip, even when exposed to vibrations. In the case of H and R-type horizontal rails the guide rails can also be bolted on. For extreme stresses, guide rails in aluminium extrusion are used.

To ensure that the wrong subassembly is not inserted into the wrong space we offer a mechanical coding to IEEE 1101.10/11 and IEC 60297-3-103.

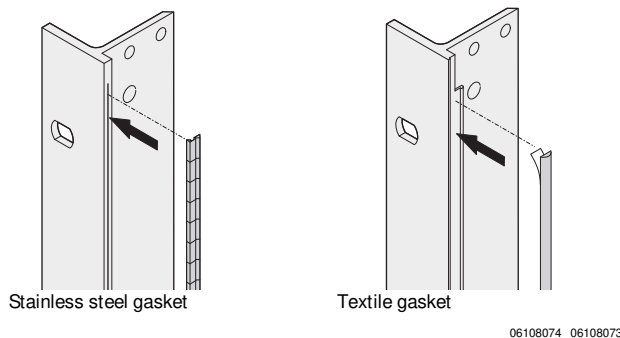
The continuous numbering on the horizontal rail (from 28 HP) and the markings on the guide rails facilitate quick fitting in the correct position.

We offer the appropriate adaptors for accommodating VPX or CompactPCI boards with strengthening frame or conduction-cooled assemblies (CCA) installed in a subrack.

ELECTROMAGNETIC SHIELDING AND ESD



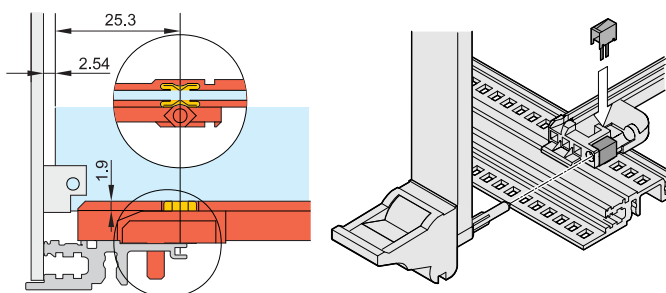
The product platform europacPRO offers a variety of off-the-shelf solutions to assure electromagnetic compatibility (EMC) and to avoid electrostatic discharge (ESD).



Two shielding concepts
It can't be more secure!

Two types of shielding concepts to front/rear of the subrack allow the use all Schroff frontpanels.

The shielding at the front of the subrack is by means of stainless steel or textile EMC gaskets.



ESD (electrostatic discharge)

To avoid electrostatic discharge when inserting PCBs, ESD contacts are clipped into the guide rails. These establish a conductive connection between PCB and subrack-earth. Under IEC 60297-3-101 two ESD areas are defined on the euroboard. The ESD clips of the guide rail of the europacPRO subrack allow the assembly of both following variants:

- ESD area (bottom and top) over the complete board length
- ESD area (bottom/top) begins at the front from 70 mm to end of board)

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Tel +1.401.738.1722

San Diego, CA, USA

Tel +1.858.740.2400

Europe, Middle East & India

Straubenhardt, Germany

Tel +49 7082 794 0

Betschdorf, France

Tel +33 3 88 90 64 90

Warsaw, Poland

Tel +48 22 209 98 35

Hemel Hempstead,

Great Britain

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Lainate, Italy

Tel +39 02 932 714 1

Dubai, United Arab Emirates

Tel +971 4 82 38 666

Bangalore, India

Tel +91 80 6715 8900

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