



CONNECT AND PROTECT

Inpac


SCHROFF

19" chassis – Inpac

OVERVIEW

MAIN KATALOG

Cabinets	1
Wall mounted cases	2
Accessories for cabinets and wall mounted cases	3
Climate control	4
Electronics cases	5
Subracks/ 19" chassis	6
Front panels, plug-in units	7
Systems	8
Power supply units	9
Backplanes	10
Connectors, front panel component system	11
Appendix	12

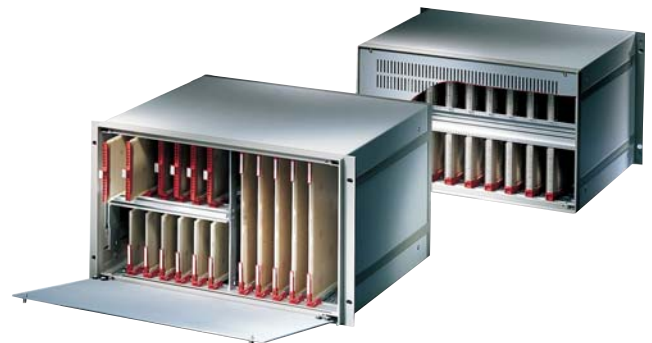


02192001



Robust 19" chassis, also for board assembly

02192005



Assembly with boards and hinged front panel

02196001

STANDARDS

- External dimensions in accordance with:
IEC 60297-3-101
- Ingress protection IP 20 to IEC 60529
- GND/earthing connectors to:
DIN EN 50178/VDE 0160
DIN EN 60950/VDE 0805
DIN EN 61010-1/VDE 0411 part 1
DIN EN 61010-1A2/VDE 0411 part 1/A1

19" chassis – Inpac

OVERVIEW

19" CHASSIS WITH HIGH MECHANICAL STABILITY

- Also usable as desk-top case
- Robust cases from aluminium die-cast frames to front and rear
- Flexible assembly for standardised board formats or individually, e.g. for mounting plates
- Cost benefit with mounting service and custom processing in ServicePLUS



02192002

19" CHASSIS/DESK-TOP ENCLOSURE

- 2 U, 3 U, 4 U and 6 U heights



02192003

INPAC BUILT INTO 19" CABINET

SERVICEPLUS

- e.g. individual configuration and assembly from 1 piece
- e.g. printing
- e.g. cut-outs in front or rear panels or cover plates
- e.g. modification (special colours)
- e.g. custom solutions (special depths, electromagnetically shielded applications)

Overview 6.128

inpac
19" chassis 6.130

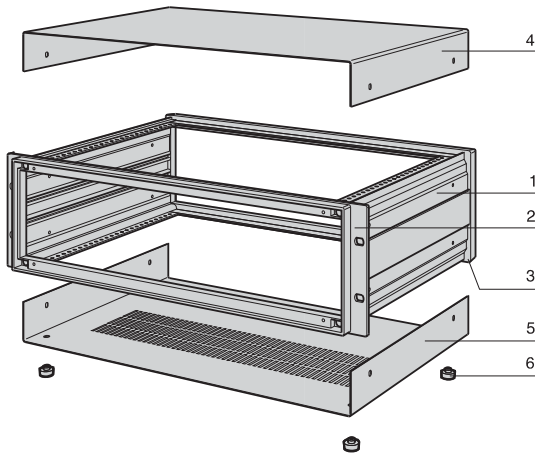
Accessories
Full-width front
panels 6.131
Full-width rear panels
..... 6.131
Support rails 6.132
Horizontal rails ... 6.132
Front handles 6.133
GND/earthing kit ... 6.133
Guide rails 6.134
Dimensions 6.136

19" chassis – Inpac

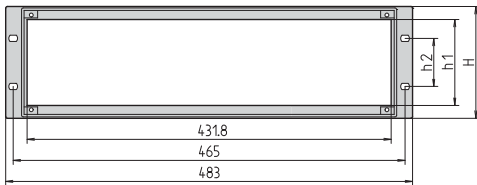
19" CHASSIS



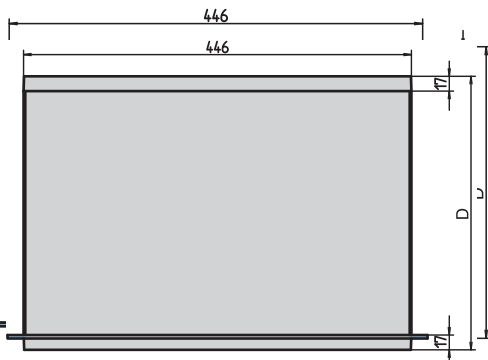
02192006



ipa30632



h1 = useable height



IPA30635



IPA30704

IPA30706

- For assembly with 19" components or individually with mounting plates
- Three rows ventilation slots in base for air inlet

DELIVERY INCLUDES (Kit)

Item	Qty	Description
1	2	Side panel, Al extrusion, RAL 7030, at 6 U: 2 Al corner profiles, 1 divider plate (steel plate)
2	1	Front frame, Al die-cast, RAL 7030, rear side with counterbores for drill holes to mount handles and front panels
3	1	Rear frame, Al die-cast, RAL 7030
4	1	Cover plate, St, 1 mm, zinc-coated RAL 7035, with GND/earthing connection
5	1	Base plate, St, 1 mm, zinc-coated RAL 7035, with GND/earthing connection
6	4	Case foot with anti-slip protection, PC, UL 94 V-0
7	1	Assembly kit

ORDER INFORMATION

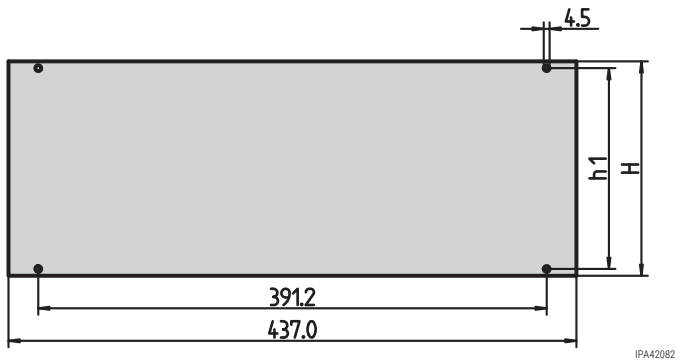
Height H U	Height H mm	h mm	h1 mm	h2 mm	Depth D mm	Part no.
2	88.0	86.0	57.5	76.2	254.5	10828-171
2	88.0	86.0	57.5	76.2	314.5	10828-172
2	88.0	86.0	57.5	76.2	374.5	10828-173
3	132.5	130.5	102.0	57.2	254.5	10828-151
3	132.5	130.5	102.0	57.2	314.5	10828-152
3	132.5	130.5	102.0	57.2	374.5	10828-153
3	132.5	130.5	102.0	57.2	434.5	10828-154
4	177.0	174.5	146.5	101.6	254.5	10828-156
4	177.0	174.5	146.5	101.6	314.5	10828-157
4	177.0	174.5	146.5	101.6	374.5	10828-158
4	177.0	174.5	146.5	101.6	434.5	10828-159
6	265.9	263.5	235.4	190.5	374.5	10828-168
6	265.9	263.5	235.4	190.5	434.5	10828-169

NOTE

- Max. installation space when fitting 19" components is 75 HP
- Scope of delivery includes screws to fix rear and front panels
- Cover- and base plate available in other colors
- Modifications such as breakouts or other dimensions possible
- or mounting / extension parts, see the following pages

19" chassis – Inpac

FRONT PANEL



DELIVERY COMPRISES

Item	Qty	Description
1	1	Front panel, Al, 2.5 mm, anodised, cut edges untreated

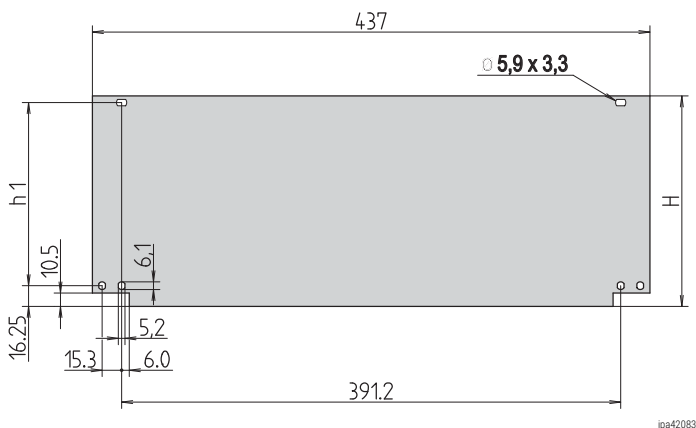
ORDER INFORMATION

Height U	Height H mm	h1 mm	Part no.
2	76.0	65.6	30828-055
3	120.5	110.0	30828-058
4	165.0	154.5	30828-061
6	253.8	243.4	30828-067

Note

- The assembly kit for the front panel is included with the 19" chassis

FRONT PANEL, BOTTOM-HINGED



DELIVERY COMPRISES

Item	Qty	Description
1	1	Front panel, hinged, Al, 2.5 mm, anodised, cut edges untreated

ORDER INFORMATION

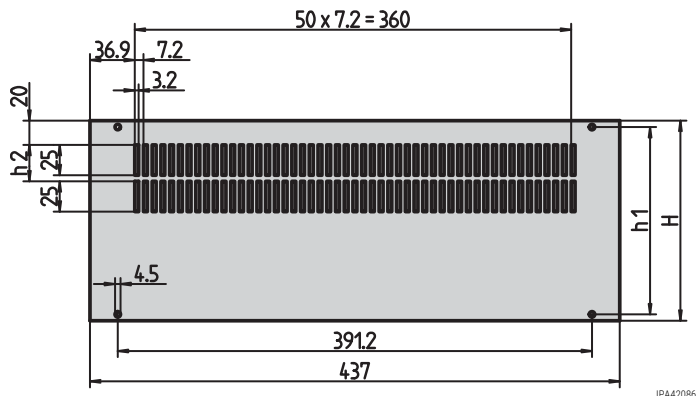
Height U	Height H mm	h1 mm	Part no.
2	76.0	54.5	30828-085
3	120.5	99.0	30828-088
4	165.0	143.5	30828-091
6	253.8	232.3	30828-097

Hinge for front panel PPE, UL 94 V-0,
PU 1 kit (includes fixing material kit and 2 collar screws)

Note

- Please order hinge for front panel separately

REAR PANEL WITH VENTILATION OPENINGS



DELIVERY COMPRISES (kit)

Item	Qty	Description
1	1	Rear panel, incl. assembly kit, Al, 2 mm, anodised, cut edges untreated

ORDER INFORMATION

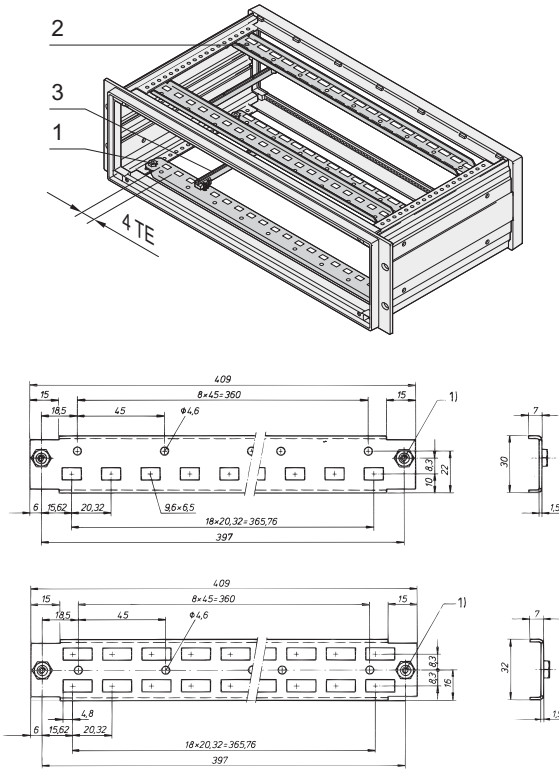
Height U	Height H mm	h1 mm	h2 mm	Part no.
2	76.0	65.6	–	30828-070
3	120.5	110.0	–	30828-073
4	165.0	154.5	–	30828-076
6	253.8	243.4	30	30828-082

Note

- The scope of delivery of the 19" chassis includes an assembly kit for the front panel

19" chassis – Inpac

SUPPORT RAIL FOR GUIDE RAILS



Dimension drawing top: Front support rail,
dimension drawing bottom: rear support rail;
1) bush M4, pressed-in

- 4 support rails to fix PCBs with guide rails
- Support rail can also be used to fix a custom mounting plate

ORDER INFORMATION

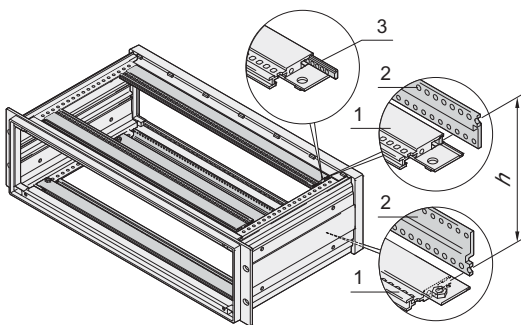
Item	Description	Part no.
1	front support rail, St, 1.5 mm, blue-passivated, 1 piece	30828-165
2	rear support rail, St, 1.5 mm, blue-passivated, 1 piece	30828-174

Accessories

Guide rail 160 mm (Item 3), PBT, UL 94 V-0, with integrated fixture for connector to EN 60603 (DIN 41612), PU 1 pair	60817-078
Guide rail 220 mm (Item 3), PBT, UL 94 V-0, with integrated fixture for connector to EN 60603 (DIN 41612), PU 1 pair	60817-079
Screw for mounting of support rails, M4 x 8, flathead bolts with posidrive, PU 100 pieces	21100-677

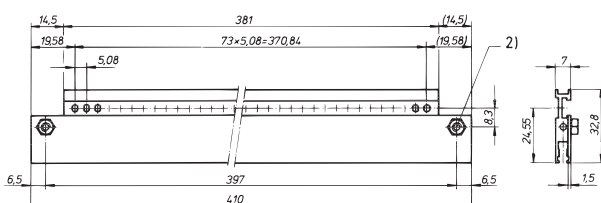
- Guide rails see page 6.134

HORIZONTAL RAIL FOR GUIDE RAILS, BACKPLANE AND CONNECTOR MOUNTING



Item 1: horizontal rail, item 2: Z-rail, item 3: threaded insert

h	Bolt-on dimension of backplane
U	mm
2	75.40
3	119.80
4	164.30
6	252.90



2) bush M4, pressed-in

- 4 horizontal rails to fix guide rails (for PCBs) and for backplane or connector mounting
- Useable width 75 HP

ORDER INFORMATION

Item	Description	Qty/PU	Part no.
1	Horizontal rail 75 HP, Al extrusion, anodised	1	30828-128

Accessories

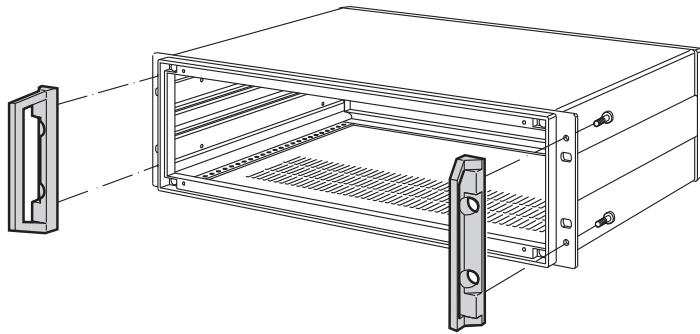
Z-rail (item 2), Al extrusion, anodised, 1 piece	30814-513
Threaded insert (item 3), St, zinc-plated (blue), 1 piece	30819-604
Screw to fix horizontal rails, M4 x 8, Pozidrive flathead screw, 100 pieces	21100-677
Cheesehead screw with slot M2.5 x 6, DIN 84, PU 100 pieces M2.5 x 6, DIN 84, 100 pieces	21100-146

Note

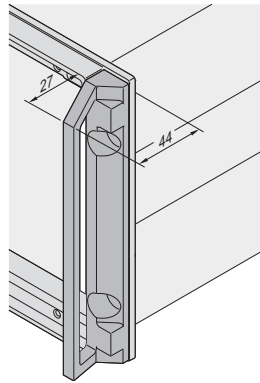
- Threaded inserts cannot be used at front
- For backplane mounting, threaded inserts are required in the rear horizontal rails
- For connector mounting, threaded inserts and Z-rails are required in the rear horizontal rails
- Guide rails see page 6.134

19" chassis – Inpac

FRONT HANDLES



IPA30636



02108050

- Load-carrying capacity 35 kg per pair

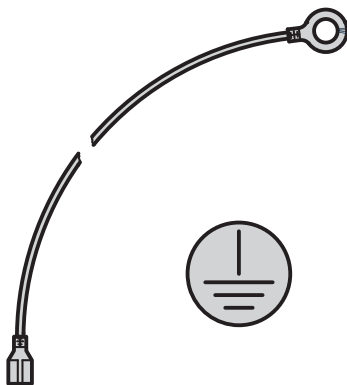
DELIVERY COMPRISES (kit)

Item	Qty	Description
1	2	Front handle, Al die-cast, powder-coated, RAL 7030, incl. assembly kit

ORDER INFORMATION

Height	Part no.
U	
3	20828-127
4	20828-128
6	20828-129

GND/EARTHING KIT



92843284

- The GND/earthing kit allows VDE-compliant earthing of the case to:
 - DIN EN 50178/VDE 0160
 - DIN EN 60950/VDE 0805
 - DIN EN 61010-1/VDE 0411 Part 1
 - DIN EN 61010-1A2/VDE 0411 Part 1/A
- VDE inspection has been carried out

ORDER INFORMATION

Description	Qty/PU	Part no.
GND/earthing kit, Cu wire, 1.5 mm ² , PVC sleeve, green/yellow, links side panels, top cover, base plate and rear panel	1	21100-814

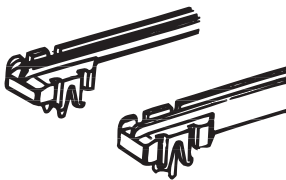
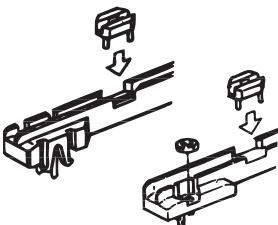
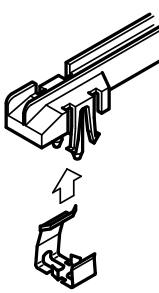
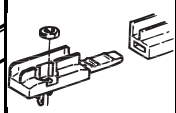
19" chassis – Inpac

GUIDE RAILS



04292012

ORDER INFORMATION

									
		Light version, snap-in	Standard version, snap-in	Version with board fixing, snap-in	Version with board fixing, bolt-on	Version for heavy load-carrying capacity, snap-in	Version with ESD clip	Universal version with AI middle section, bolt-on	
Board lengths	Groove width	Part no.	Part no.	Part no.	Part no.	Part no.	Part no.	Part no.	
mm	mm	1 piece (SPQ 50) ¹⁾	1 piece (SPQ 50) ¹⁾	1 piece (SPQ 50) ¹⁾	1 piece (SPQ 50) ¹⁾	1 piece (SPQ 50) ¹⁾	Qty/PU 1 piece	Qty/PU 1 piece	
100	2	–	60817-015	–	–	–	–	–	–
160	2	60817-064	60817-103	60817-001	60817-053	60817-102	20817-368	–	–
160	2.5	–	60817-076	–	–	–	–	–	–
180	2	–	–	60817-026	–	–	–	–	–
220	2	–	60817-149	60817-016	60817-083	60817-085	20817-369	–	–
220	2.5	–	–	–	–	60817-098	–	–	–
280	2	–	–	–	–	60817-080	–	–	–
340	2	–	–	–	–	–	–	20825-120	–
400	2	–	–	–	–	–	–	20825-121	–
		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							

Accessories

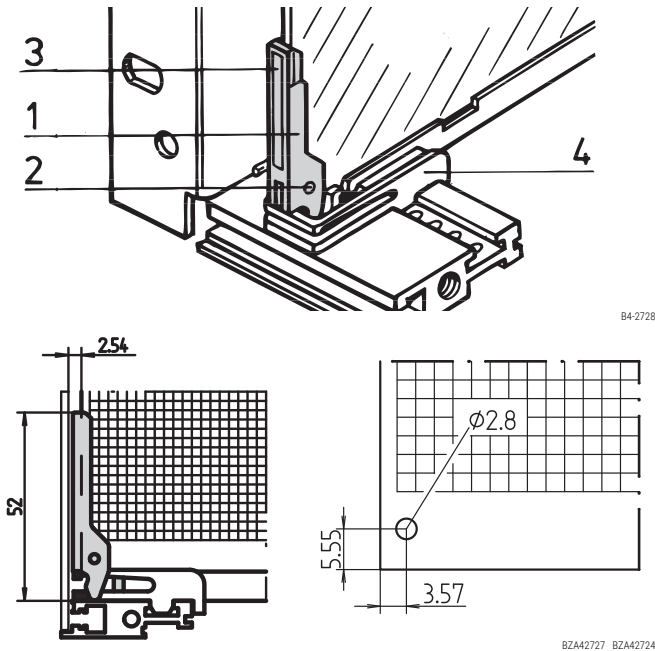
Spring clip PPE, UL 94 V-0, red, PU 10 pieces	21100-553	21100-553	–	–	–
Spring clip PPE, UL 94 V-0, red, PU 100 pieces	21100-554	21100-554	–	–	–
Assembly parts for 50 guide rails PU (100 screws, 100 nuts)	–	21101-990	–	–	21101-990

Note

- For a detailed description of the guide rails see our website; please enter part number in "oneclick" search

19" chassis – Inpac

PCB HANDLE A



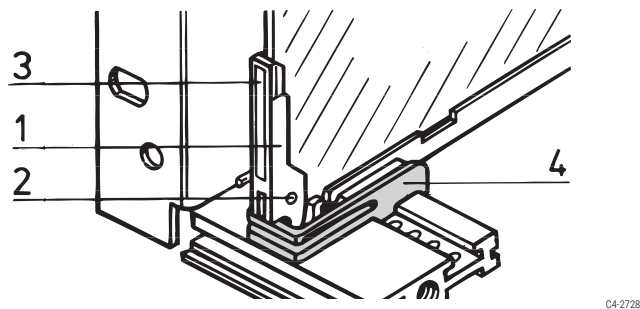
- To be mounted behind front panel, for PCB thickness 1.6 mm
- Insertion and extraction function
- Can be labelled

ORDER INFORMATION

Item	Description	Material	Colour	Qty/PU	Part no.
1	PCB handle A	PBT, UL 94 V-0	red	1 piece (SPQ 10)	60817-096
2	Pivot pin DIN 7	Stainless steel	–	100	21100-671
3	Identification strip	Polyester film, self-adhesive	mat-silver	100	21100-672

SPQ (Standard Pack Quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity: Please order at least 10 pieces PCB handles or a multiple

PCB RETAINER A



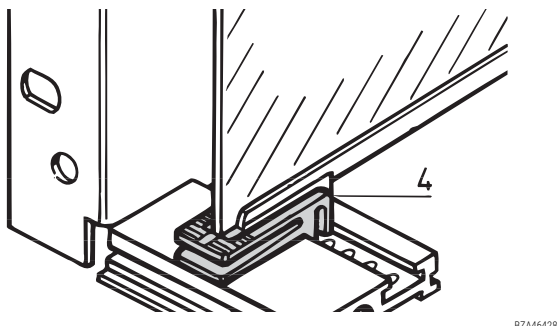
- Can also be used without PCB handle
- Application on top and bottom horizontal rail

ORDER INFORMATION

Item	Description	Material	Colour	Qty	Part no.
4	PCB retainer A for top and bottom	PPE, UL 94 V-0	red	1 piece (SPQ 10)	60817-097

SPQ (Standard Pack Quantity): Part number includes 1 piece, but delivery is exclusively made in Standard Pack Quantity: Please order at least 10 pieces PCB retainers or a multiple

PCB RETAINER B



- Can be used on upper and lower horizontal rail, for PCB thickness 1.6 mm
- Can also be used without PCB handle
- Can also be used with guide blocks

ORDER INFORMATION

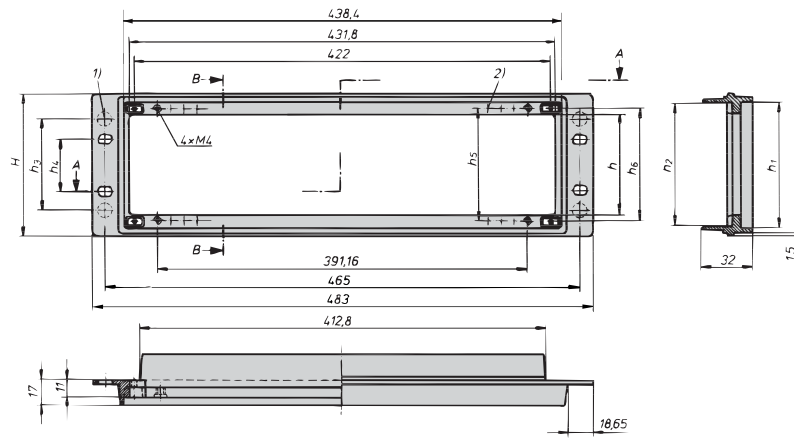
Item	Description	Material	Colour	Qty	Part no.
4	PCB retainer, bottom	PPE, UL 94 V-0	red	1 piece (SPQ 10)	60817-054
4a	PCB securing top	PPE, UL 94 V-0	black	1 piece (SPQ 10)	60817-071

SPQ (Standard Pack Quantity): Part number includes 1 piece, but delivery is exclusively made in Standard Pack Quantity: Please order at least 10 pieces PCB retainers or a multiple

19" chassis – Inpac

DIMENSIONS

19" FRONT FRAME

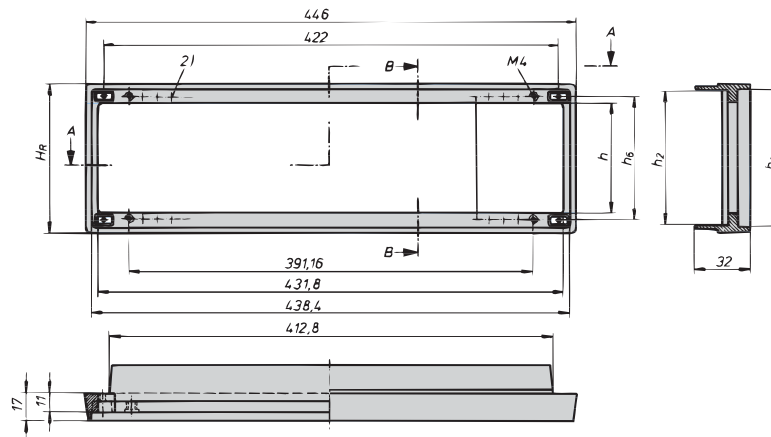


Section A-A

There are counterbores at the rear side of the front frame which can be drilled if required:

- 1) For handle mounting
- 2) For mounting of partial-width front panel (grid 5.08 mm)

19" REAR FRAME



Section A-A

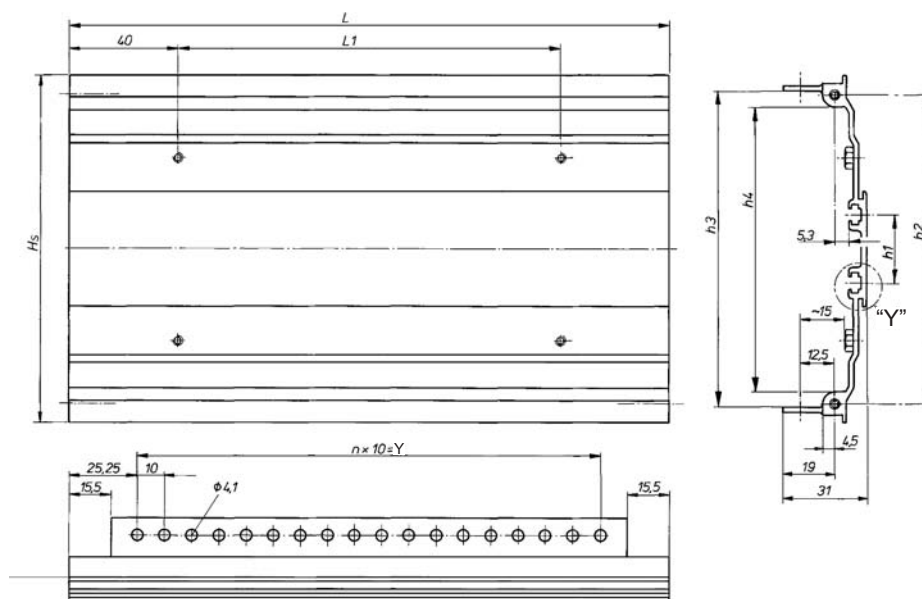
Dimensions table

Height in U	H	H _R	h	h ₁	h ₂	h ₃	h ₄	h ₅	h ₆	h ₇
2	88,0	86,0	57,5	77,3	69,8	25,0	76,2	65,5	68,0	68,4
3	132,5	130,5	102,5	121,8	114,3	90,0	57,1	110,0	112,5	112,8
4	177,0	175,0	146,5	166,3	158,8	134,5	101,6	154,5	157,0	157,3
6	265,9	263,9	235,4	255,2	247,7	233,4	190,4	243,4	245,9	245,9

19" chassis – Inpac

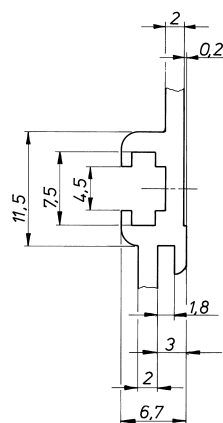
DIMENSIONS

SIDE PANEL



A3-304a

Detail "Y"



A3-304b

Dimensions table										
Height in U	H	h ₁	h ₂	h ₃	h ₄	L	L ₁	(n)	Y	T
2	82,6	–	68,0	71,4	59,0	220,5	140,5	17,0	170	254,5
2	82,6	–	68,0	71,4	59,0	280,5	200,5	23,0	230	314,5
2	82,6	–	68,0	71,4	59,0	340,5	260,5	29,0	290	374,5
3	127,0	24,0	112,5	115,8	103,5	220,5	140,5	17,0	170	254,5
3	127,0	24,0	112,5	115,8	103,5	280,5	200,5	23,0	230	314,5
3	127,0	24,0	112,5	115,8	103,5	340,5	260,5	29,0	290	374,5
4	171,0	68,5	157,0	160,3	148,0	220,5	140,5	17,0	170	254,5
4	171,0	68,5	157,0	160,3	148,0	280,5	200,5	23,0	230	314,5
4	171,0	68,5	157,0	160,3	148,0	340,5	260,5	29,0	290	374,5
6	260,4	157,1	245,9	248,9	236,5	220,5	140,5	17,0	170	254,5
6	260,4	157,1	245,9	248,9	236,5	280,5	200,5	23,0	230	314,5
6	260,4	157,1	245,9	248,9	236,5	340,5	260,5	29,0	290	374,5

North America

Warwick, RI, USA

Tel +1.800.525.4682

San Diego, CA, USA

Tel +1.800.854.7086

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**

Tel +44 1442 24 04 71

Lainate, Italy

Tel +39 02 932 714 1

Dubai, United Arab Emirates

Tel +971 4 37 81 700

Bangalore, India

Tel +91 80 67152000

Istanbul, Turkey

Tel +90 216 250 7374

Asia Pacific

Shanghai, China

Tel +86 21 2412 6943

Singapore

Tel +65 6768 5800

Shin-Yokohama, Japan

Tel +81 45 476 0271

Our powerful portfolio of brands:

CADDY ERICO HOFFMAN RAYCHEM SCHROFF TRACER



nVent.com/SCHROFF