

Product description

MAIN FEATURES

Stylebox 15 e-motion is a portable desktop case according to the 19" standards. It is a platform that was built according to the IEC60297 standard. The scalable EMC protection, color and design variants make it the first choice for high-end electronics. The top design, the variety of sizes and variants as well as the wide range of accessories create ideal conditions for a variety of applications such as controls, measuring devices or computer systems.

- › Case system: 4 longitudinal aluminum profiles and 2 side walls as a supporting frame | sheet steel cladding
- › The front of the case can be fitted as required with cover brackets, front handles or 19" fixing brackets - this permits subsequent conversion from a desktop case to a 19" module unit and vice-versa
- › Mounting dimensions according to IEC60297
- › Numerous accessories
- › Internal mounting chassis
- › Horizontal and vertical insertion of Eurocard PCBs
- › Elegant design

PRODUCT VARIETY

- Cover plates bolted to the side
- Front of the enclosure can be equipped with cover brackets, front handles or 19" fixing brackets
- Colorless passivated inside of the cladding
- Longitudinal profiles colorless passivated (enable a large area contacting for optimal EMC protection)
- Top and bottom plates on the contact surfaces color-free
- Optional EMC seals for increased EMC protection
- Optional folding feet for use in installation angles

STYLEBOX 15 E-MOTION



POSSIBLE CUSTOMIZATIONS

- Different sizes
- Colors: White, silver (other colors on request)
- Customizations
- Standard or customized front panels
- Optional scalable EMC shielding
- Rear I/Os possible

TYPICAL APPLICATIONS

- 19" subrack systems (e.g. for IEC or IEEE controller cards)
- Measurement and test instruments
- Laboratory or field instruments
- Medical equipment

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Types

SIZES

- Height: 2 to 7 U
- Width: 42 | 63 | 84 HP
- Depth: 245, 305, 395 or 500 mm

Height	Width		
	42 HP	63 HP	84 HP
2 U			
3 U			
4 U			
6 U			
7 - 9 U (on request)			

Depth 245 mm 9.64" 305 mm 12.00" 395 mm 15.55" 500 mm 19.68"

EXECUTIONS

Table case with cover brackets

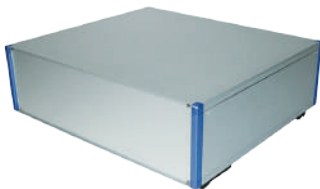


Table case with front handle



Table case with bow handle



19" slide-in enclosure with front handles



19" slide-in enclosure without front handles



Types

COLORS

- White
- Silver
- Other colors on request

SPECIAL FEATURES

- Increased EMC shielding on request
- Rear inputs and outputs

CUSTOMIZATIONS

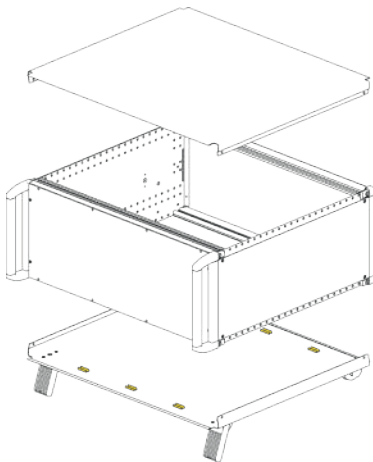
- Standardized or customized front panels
- Customized front and rear panels on request

EMC VARIANTS

EMC CONSTRUCTION AND CONFIGURATION

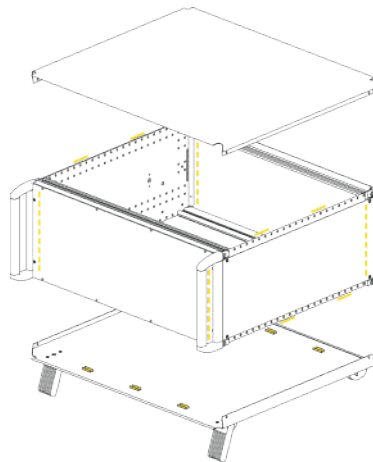
Basic level

Size: 4 U x 84 HP x 395 mm
 Standard front panel
 (cover panels perforated and unperforated)



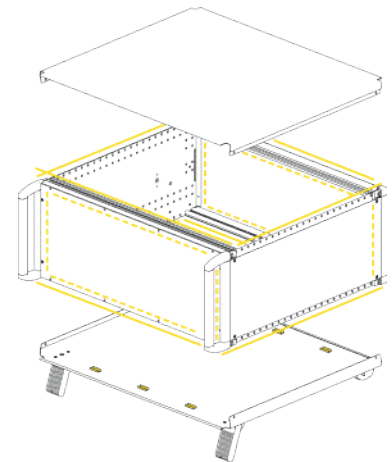
Advanced level

Size: 4 U x 84 HP x 395 mm
 EMC front panels and gasket kit
 (cover panels perforated and unperforated)



Superior level

Size: 4 U x 84 HP x 395 mm
 EMC front panels and gasket kit
 (cover panels perforated and unperforated)



Types

EMC PROTECTION

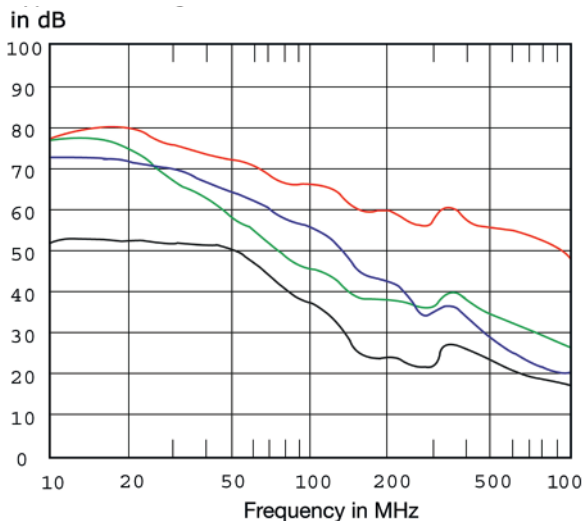
Electromagnetic compatibility is the ability of a system to operate in the intended environment without causing or suffering unacceptable degradation of performance due to unintentional electromagnetic radiation or response. The EMC characteristics of a system therefore consist of an appropriate immunity from interference (noise immunity) and a limited emission of interference (noise emission).

Elma's EMC concept describes three levels of electromagnetic shielding performance (performance level). The attenuation levels will simplify the selection of sub racks for the user. Test setup: The first measurement E1 is without the enclosure. The next measurement E2 is made with the transmitting antenna installed inside the enclosure. The difference between the received signal without and with the enclosure represents the shielding effectiveness in dB.

Performance level	30 - 230 MHz	230 - 1000 MHz	1000 - 2000 MHz
1 Elma Basic level	20 dB	10 dB	0 dB
2 Elma Advanced level	40 dB	30 dB	20 dB
3 Elma Superior level	60 dB	50 dB	40 dB

The standard configuration will provide you with a basic (Stylebox 15 Standard or e-motion) or an advanced EMC level (Stylebox 15 smart). If you require an advanced or superior EMC level for your system, you need to order additional EMC parts.

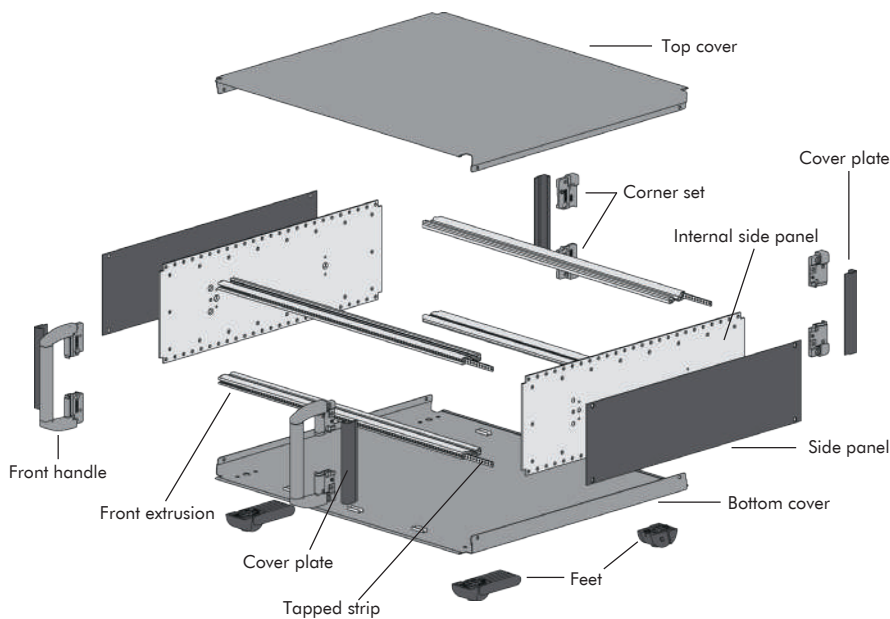
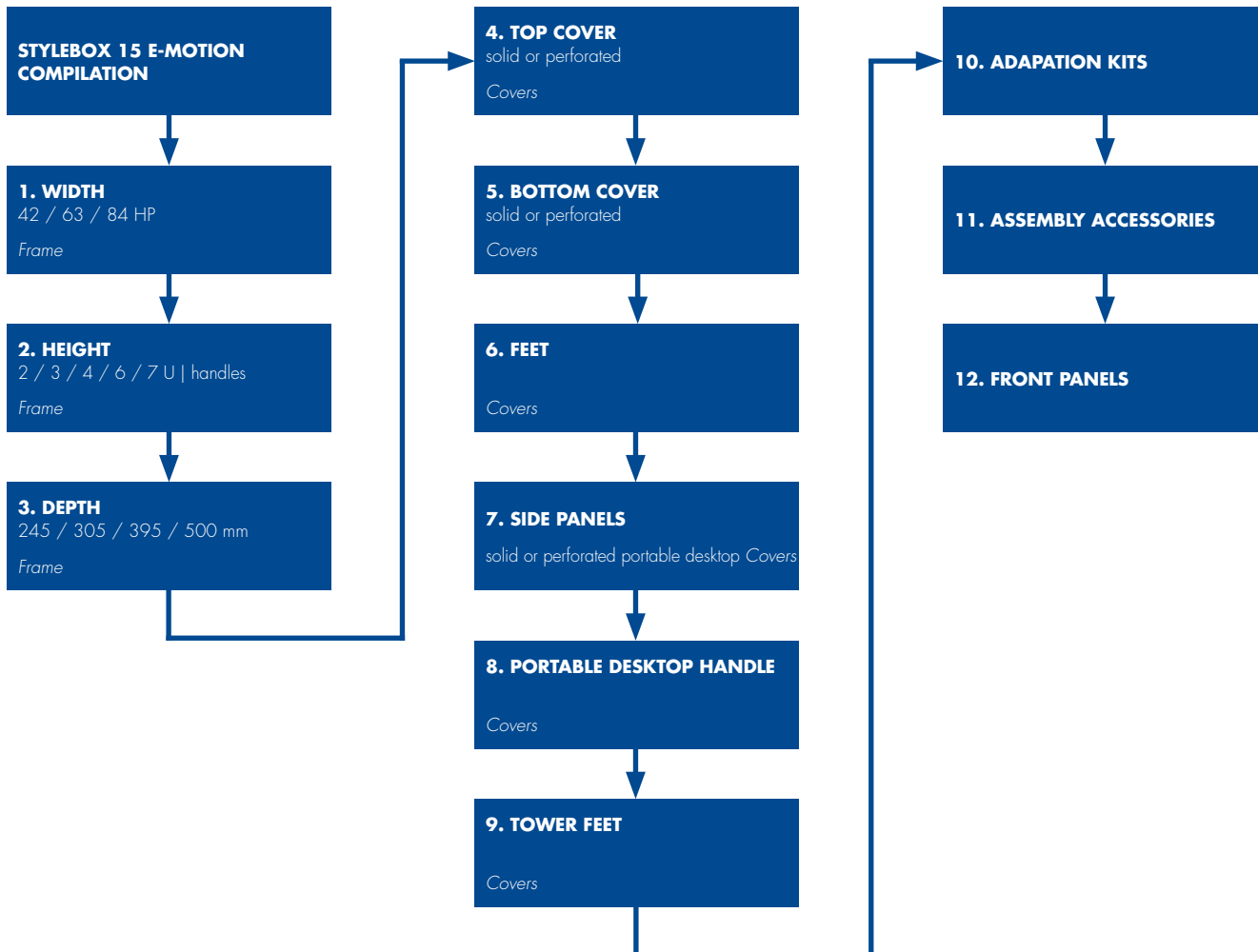
TYPICAL ATTENUATION



- Basic EMC level Case size 4 U-x-42 HP-x-245 mm (9.64") with standard front panels (cover panels perforated and unperforated)
- Basic EMC level Case size 4 U-x-84 HP-x-395 mm (15.55") with standard front panels (cover panels perforated and unperforated)
- Advanced EMC level Case size 4 U-x-84 HP-x-395 mm (15.55") with EMC front panels and gasket set for advanced EMC level (cover panels perforated and unperforated)
- Superior EMC level Case size 4 U-x-84 HP-x-395 mm (15.55") with EMC front panels and gasket set for superior EMC level (cover panels perforated and unperforated)

Product structure

CONFIGURATION



Product structure

WIDTH

- Aluminum profile, electrically conductive

Scope of delivery:

- 4 front / rear extrusions
- 4 tapped strips M 2.5
- 1 set of 16 screws torx T20 (M4 x 10)



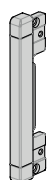
Description	42 HP	63 HP	84 HP
IEC application	15S035	15S036	15S037
IEEE application	15S007	15S008	15S009

BEZELS

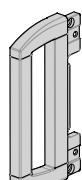
- 19" version do not allow additional cover brackets
- Profiles and die-cast parts: Aluminum, powder coated or wet painted, contact area conductive

Scope of delivery:

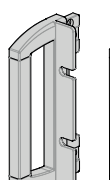
- 1 brackets
- 4 pieces have to be ordered (for front and rear side)



Bracket



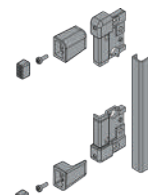
Front handle



19" bracket with front handle



19" bracket



Rear feet corner set plus coverplate

Description	Color	2 U	3 U	4 U	6 U
Bracket	White	15-242-70	15-243-70	15-244-70	15-246-70
	Silver	15-242-80	15-243-80	15-244-80	15-246-80
for design front panel	White	15-242-01-70	15-243-01-70	15-244-01-70	15-246-01-70
	Silver	15-242-01-80	15-243-01-80	15-244-01-80	15-246-01-80
Front handle	White	15-222-70	15-223-70	15-224-70	15-226-70
	Silver	15-222-80	15-223-80	15-224-80	15-226-80
for design front panel	White	15-220-01-70	15-223-01-70	15-224-01-70	15-226-01-70
	Silver	15-222-01-80	15-223-01-80	15-224-01-80	15-226-01-80
19" bracket	White	15-232-70	15-233-70	15-234-70	15-236-70
	Silver	15-232-80	15-233-80	15-234-80	15-236-80
for design front panel	White	15-232-01-70	15-233-01-70	15-234-01-70	15-236-01-70
	Silver	15-232-01-80	15-233-01-80	15-234-01-80	15-236-01-80
19" bracket	White	15-182-70	15-183-70	15-184-70	15-186-70
	Silver	15-182-80	15-183-80	15-184-80	15-186-80
for design front panel	White	15-212-70	15-213-70	15-214-70	15-216-70

For 7 to 9 U:
Multi-part handle
on request

Product structure

SUPPORT FEET

Support feet and according bezels

Description	Color	2 U	3 U	4 U	6 U
Rear Feet	Black	15S090	15S090	15S090	15S090
Plus cover panel	White	66-686-060-70	66-686-105-70	66-686-149-70	66-686-238-70
	Silver	66-686-060-80	66-686-105-80	66-686-149-80	66-686-238-80

DEPTH

- Internal side panel 2 mm aluminum, clear passivated

Scope of delivery:

- 1 internal side panel
- 2 pieces have to be ordered (for left and right side)



Height	245 mm 9.64"	305 mm 12.00"	395 mm 15.55"	500 mm 19.68"
2 U	15-520	15-522	15-524	-
3 Z	15-530	15-532	15-534	15-536
4 U left	15-540	15-542	15-544	15-546
4 U right	15-541	15-543	15-545	15-547
6 U	-	15-562	15-564	15-566
7 U	-	15-572	15-574	15-576

TOP COVER

- Symmetrical construction: Perforation can be used at front or rear
- 0.75 mm sheet steel powder coated or wet painted, contact area conductive

Scope of delivery:

- 1 top cover

Description	Width	Depth			
		245 mm 9.64"	305 mm 12.00"	395 mm 15.55"	500 mm 19.68"
Solid, white	42 HP	15B201-70	15B202-70	15B203-70	15B204-70
Solid, silver		15B201-80	15B202-80	15B202-80	15B202-80
Perforated, white		15B201-71	15B202-71	15B203-71	15B204-71
Perforated, silver		15B201-81	15B202-81	15B203-81	15B204-81
Solid, white	63 HP	15B206-70	15B207-70	15B208-70	15B209-70
Solid, silver		15B206-80	15B207-80	15B208-80	15B209-80
Perforated, white		15B206-71	15B207-71	15B208-71	15B209-71
Perforated, silver		15B206-81	15B207-81	15B208-81	15B209-81
Solid, white	84 Hp	15B210-70	15B212-70	15B213-70	15B214-70
Solid, silver		15B210-80	15B212-80	15B213-80	15B214-80
Perforated, white		15B210-71	15B212-71	15B213-71	15B214-71
Perforated, silver		15B210-81	15B212-81	15B213-81	15B214-81



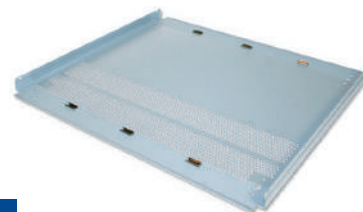
Product structure

BOTTOM COVER

- Symmetrical construction: Perforation at front or rear
- 0.75 mm sheet steel powder coated or wet painted, contact area conductive

Scope of delivery:

- 1 bottom cover with mounted feet



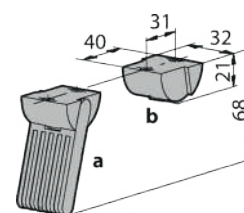
Description	Width	Depth			
		245 mm 9.64"	305 mm 12.00"	395 mm 15.55"	500 mm 19.68"
Solid, white	42 HP	15B301-70	15B302-70	15B303-70	15B304-70
Solid, silver		15B301-80	15B302-80	15B303-80	15B304-80
Perforated, white		15B301-71	15B302-71	15B303-71	15B304-71
Perforated, silver		15B301-81	15B302-81	15B303-81	15B304-81
Solid, white	63 HP	15B306-70	15B307-70	15B308-70	15B309-70
Solid, silver		15B306-80	15B307-80	15B308-80	15B309-80
Perforated, white		15B306-71	15B307-71	15B308-71	15B309-71
Perforated, silver		15B306-81	15B307-81	15B308-81	15B309-81
Solid, white	84 HP	15B310-70	15B312-70	15B313-70	15B314-70
Solid, silver		15B310-80	15B312-80	15B313-80	15B314-80
Perforated, white		15B310-71	15B312-71	15B313-71	15B314-71
Perforated, silver		15B310-81	15B312-81	15B313-81	15B314-81

FEET

- With and without tilt feet
- Glass-fiber reinforced plastic, UL94 V-0
- Including screws 3.5 x 8 size T10
- Up to 30 kg carrying capacity per set

Scope of delivery:

- 2 + 2 case feet, incl. rubber inserts NBR
- 8 countersunk PT-screws torx T10 (3.5 x 8)



Description	Color	Part No.
Case feet 2 x a + 2 x b	Light grey (RAL 7035)	63K524
Case feet 2 x a + 2 x b	Black (RAL 9005)	63K526
Case feet 2 x a + 2 x b	Dark grey (special)	63K525

TOWER FEET

- Plastic and aluminum (mounted direct onto side panel)

Scope of delivery:

- 4 round feet, Ø 40 mm
- 4 round head screws with integrated washer torx T10 (M3 x 8)

Description	Part No.
Set of tower feet	63-880



Product structure

PORTABLE DESKTOP HANDLE

Scope of delivery:

- 2 adapters
- 2 side parts, black
- 1 handle extrusion, soft feel
- Assembly material, torx



Height	42 HP	63 HP	84 HP
2 HP	15S050	15S051	15S052
3 and 4 HP	15S053	15S054	15S055

SIDE PANELS

- Side panel 2 mm aluminum, clear passivated

Scope of delivery:

- 1 inner side wall
- 2 pieces have to be ordered (for left and right side)



Description	Depth		Height				
	mm	inch	2 U	3 U	4 U	6 U	7 U
Solid, white	245	9.64	15B601-70	15B606-70	15B610-70	-	-
Solid, silver			15B601-80	15B606-80	15B610-80	-	-
Solid, white for portable desktop			15B657-70	15B661-70	15B665-70	-	-
Solid, silver for portable desktop			15B657-80	15B661-80	15B665-80	-	-
Solid, white	305	12.00	15B602-70	15B607-70	15B612-70	15B622-70	15B627-70
Solid, silver			15B602-80	15B607-80	15B612-80	15B622-80	15B627-80
Solid, white for portable desktop			15B658-70	15B662-70	15B667-70	-	-
Solid, silver for portable desktop			15B658-80	15B662-80	15B667-80	-	-
Solid, white	395	15.55	15B603-70	15B608-70	15B613-70	15B623-70	15B628-70
Solid, silver			15B603-80	15B608-80	15B613-80	15B623-80	15B628-80
Solid, white for portable desktop			15B659-70	15B663-70	15B668-70	-	-
Solid, silver for portable desktop			15B659-80	15B663-80	15B668-80	-	-
Solid, white	500	19.68	-	15B609-70	15B614-70	15B624-70	15B629-70
Solid, silver			-	15B609-80	15B614-80	15B624-80	15B629-80
Solid, white for portable desktop			-	15B664-70	15B669-70	-	-
Solid, silver for portable desktop			-	15B664-80	15B669-80	-	-

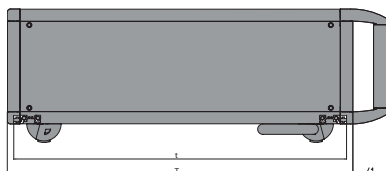
ASSEMBLY MATERIAL FOR 1 SIDE PANEL

Description	Part No.
4 countersunk screws torx T10 (M3 x 6)	63K800

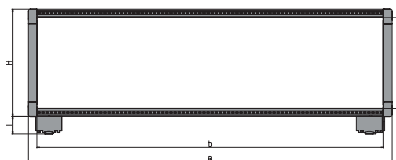
Drawings and dimensions

DIMENSION DRAWINGS

SIDE VIEW



FRONT VIEW



U	Height H		Height Hs	
	mm	inch	mm	inch
2	88.05	3.46	68.05	2.67
3	132.50	5.21	112.50	4.42
4	176.95	6.96	156.95	6.17
6	265.85	10.46	245.85	9.67
7	310.3	12.21	290.30	11.43

Depth T		Depth t	
mm	inch	mm	inch
245	9.64	232.6	9.15
305	12.00	292.6	11.51
395	15.55	382.6	15.06
500	19.68	487.6	19.19

HP	Width B		Width b	
	mm	inch	mm	inch
42	235.2	9.25	213.4	8.4
63	341.9	13.46	320.1	12.6
84	448.6	17.66	426.8	16.8

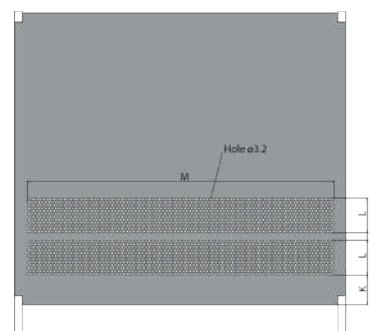
Feet type	Feet l	
	mm	inch
emotion	21.5	0.89

TOP VIEW

Air flow

HP	Depth mm	M		K mm	L mm
		mm	mm ²		
42	245 / 305 / 395 / 500	208	8680	40	47.2
63	245 / 305 / 395 / 500	323	13510	40	47.2
84	245 / 305 / 395 / 500	415	17370	40	47.2

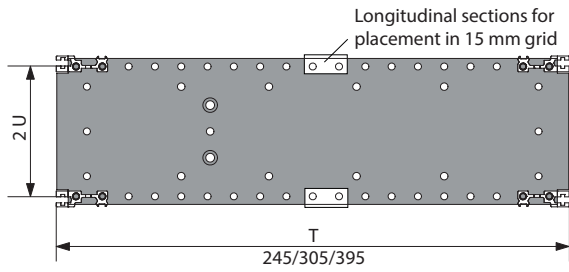
HP	Depth inch	M		K inch	L inch
		inch	sq. inch		
42	9.64 / 12 / 15.55 / 19.68	8.18	13.46	1.57	1.85
63	9.64 / 12 / 15.55 / 19.68	12.71	20.94	1.57	1.85
84	9.64 / 12 / 15.55 / 19.68	16.33	26.92	1.57	1.85



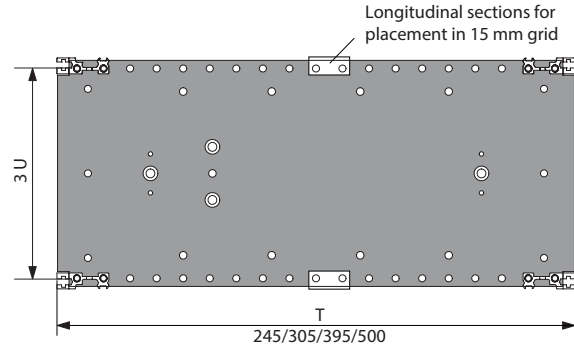
Drawings and dimensions

SIDE PANELS

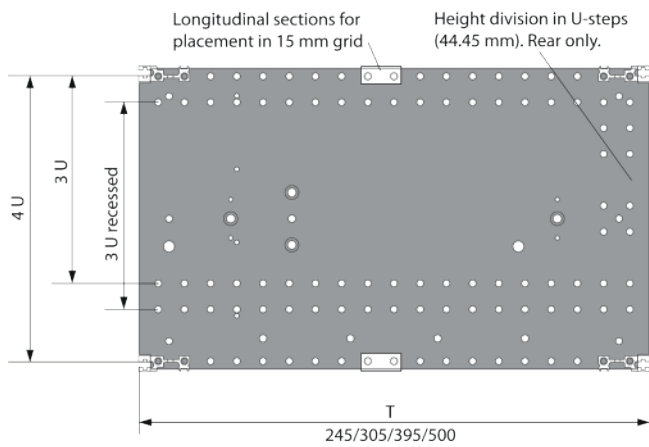
2 U



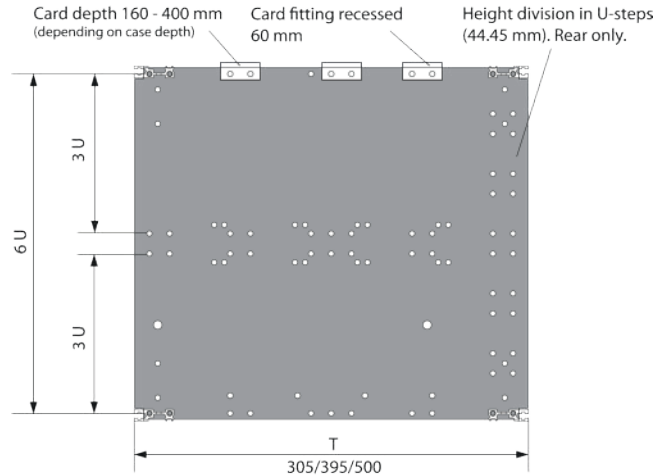
3 U



4 U



6 U



Adaptation kits

INFORMATION

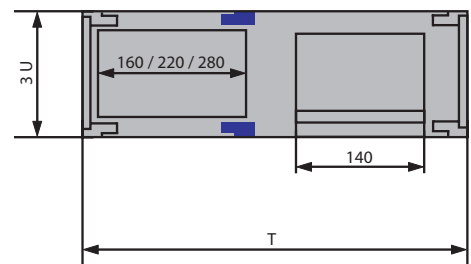
Adaptation kits are used to subdivide the both in its depths and heights. The adaptation kits for the flush or recess mounted circuit boards or cassettes include the necessary internal extrusions and assembly materials.

Information for adaptation kits a - f: 15-xxx- for mounting:
 6 = Extrusion 66-193, for insulated backplane mounting
 7 = Extrusion 66-194, for conductive backplane mounting

ADAPTATION KITS A

Range of application:

- Single Eurocard with depth 160 to 280 mm
- Backplanes
- Modules, cassettes, plug-in units
- Set for horizontal mounting of single, double triple Eurocard, with depth 160 to 280 mm
- Crossflow ventilation with 3 U fan module
- Drive mechanism receptacles 3 1/2" | 5 1/4"



Scope of delivery:

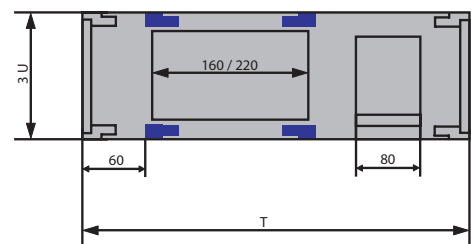
- 2 internal extrusions
- 2 insulating strips (only 15K0xx - 6)
- 2 tapped strips M2.5
- 1 set assembly material, torx

Description	42 HP	63 HP	84 HP
Flush front-mounting of single Eurocards	15K041-6	15K031-6	15K011-6
	15K041-7	15K031-7	15K011-7

ADAPTATION KITS B

Range of application:

- Recessed mounting of single Eurocards, with depth 160 to 220 mm
- Without individual front panels
- Backplanes



Scope of delivery:

- 4 internal extrusions
- 2 insulating strips (only 15K0xx - 6)
- 2 tapped strips M2.5
- 1 set assembly material, torx

Description	42 HP	63 HP	84 HP
Recessed mounting of single Eurocards without front panels	15K042-6	15K032-6	15K012-6
	15K042-7	15K032-7	15K012-7

Adaptation kits

ADAPTATION KITS C

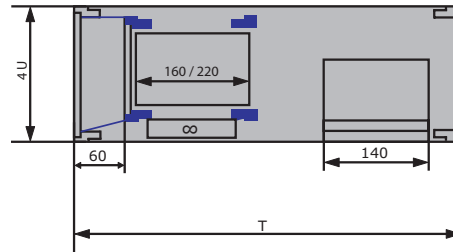
Reduction kit 1/3 U + 2/3 U for 60 mm recessed mounting

Range of application:

- Recessed mounting of single Eurocards, with depth 160 to 220 mm
- With or without individual front panels
- Max. fan height 26 mm
- Backplanes
- Modules, cassettes, plug-in units
- Drive mechanism receptacles 5 1/4"

Scope of delivery:

- 2 internal extrusions
- 2 longitudinal extrusions 66-111 (IEC) or 66-677 (IEEE)
- 2 insulating strips (only 15K0xx - 6)
- 1 auxiliary cover top
- 1 auxiliary cover bottom
- 4 tapped strips M2.5
- 1 set assembly material, torx



*only bottom part (2/3 U) is perforated

Description	HP	Part No.	
		IEC	IEEE
Adaptation kit reduction, solid, without fan panel	84	15K053-6	15K060-6
		15K053-7	15K060-7
Adaptation kit reduction, perforated*, without fan panel		15K054-6	15K061-6
		15K054-7	15K061-7
Adaptation kit reduction, perforated*, with fan panel		15K055-6	15K062-6
		15K055-7	15K062-7

ADDITIONAL FAN PLATE

Scope of delivery:

- 1 fan plate
- 8 milled edge screws torx T10 (M3 x 5)

Description	Part No.
Additional fan plate incl. 1 set assembly material	12K737

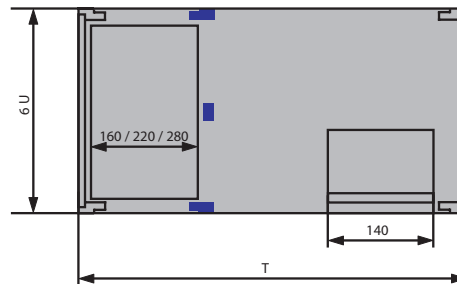
ADAPTATION KITS D

Range of application:

- Double Eurocards with depth 160 to 280 mm
- Backplanes
- Modules, cassettes, plug-in units
- Drive mechanism receptacles 3 1/2" | 5 1/4"

Scope of delivery:

- 2 internal extrusions
- 1 centre extrusion
- 4 insulating strips
- 4 tapped strips M2.5
- 2 set assembly material, torx



Description	42 HP	63 HP	84 HP
Flush front-mounting of double Eurocards	15K044-6	15K034-6	15K014-6

Adaptation kits

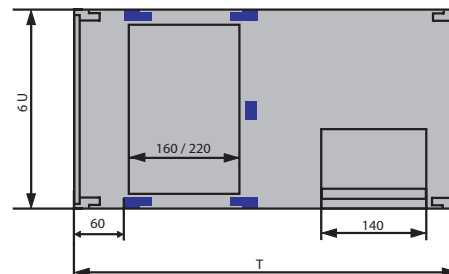
ADAPTATION KITS E

Range of application:

- Recessed mounting of double Eurocards, with depth 160 to 220 mm
- Without individual front panels
- Backplanes

Scope of delivery:

- 4 internal extrusions
- 1 centre extrusion
- 4 insulating strips
- 4 tapped strips
- 2 set assembly material, torx



Description	42 HP	63 HP	84 HP
Recessed mounting of double Eurocards without front panels	15K045-6	15K035-6	15K015-6

ADAPTATION KITS F

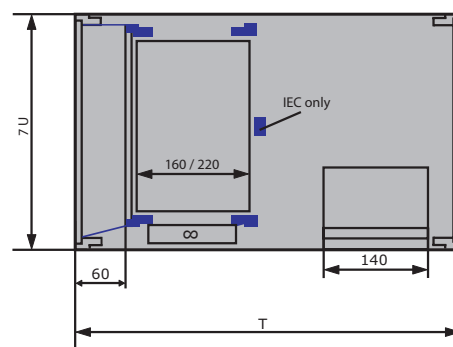
Reduction kit 1/3 U + 2/3 U for 60 mm recessed mounting

Range of application:

- Recessed mounting of double eurocards with depth 160 to 220 mm
- With or without individual front panels
- Max. fan height 26 mm
- Backplanes
- Modules, cassettes, plug-in units
- Drive mechanism receptacles 5 1/4"

Scope of delivery:

- 2 internal extrusions
- 2 longitudinal extrusions 66-111 (IEC) or 66-677 (IEEE)
- 2 insulating strips (only -6 and IEEE, if -6 and IEC 4 strips needed)
- 1 centre extrusion (only IEC)
- 1 auxiliary cover top
- 1 auxiliary cover bottom
- 4 tapped strips M2.5 (6 pieces for IEC)
- 1 set assembly material, torx



*only bottom part (2/3 U) is perforated

Description	HP	Part No.	
		IEC	IEEE
Adaptation kit reduction, solid, without fan panel	84	15K053-6	15K060-6
		15K053-7	15K060-7
Adaptation kit reduction, perforated*, without fan panel		15K054-6	15K061-6
		15K054-7	15K061-7
Adaptation kit reduction, perforated*, with fan panel		15K055-6	15K062-6
		15K055-7	15K062-7

ADDITIONAL FAN PLATE

Scope of delivery:

- 1 fan plate
- 8 milled edge screws torx T10 (M3 x 5)

Description	Part No.
Additional fan plate incl. 1 set assembly material	12K737

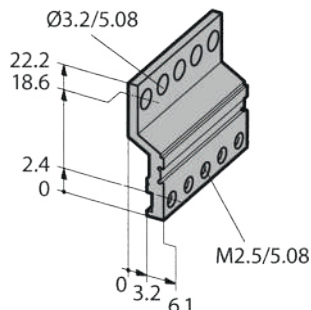
Adaptation kits

EDGE CONNECTOR EXTRUSION

Scope of delivery:

- 1 aluminum extrusion, clear passivated (conductive)

HP	Length		Part No.	
	mm	inch	clear passivated (EMV version)	raw
8	40.6	1.59	66-147-40	
18	91.4	3.59	66-147-41	
28	142.2	5.60	66-147-42	
42	213.4	8.40	66-147-63	
63	320.0	12.60	66-147-65	
81	411.5	16.20	66-147-22	
84	426.7	16.80	66-147-52	
	1350.0	53.14		66-147-19



ASSEMBLY MATERIAL

Description	Part No.
Assembly material M2.5 (for 2 supplementary extrusions)	63-214

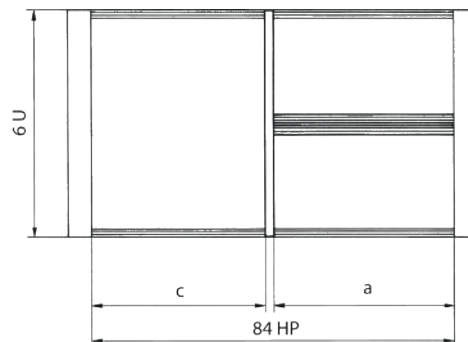
Accessories

WIDTH DIVISION FOR 6 U CONSTRUCTION

Scope of delivery:

- 1 divider extrusion front
- 1 divider extrusion rear
- 2 longitudinal extrusions
- 2 internal extrusions
- Assembly material:
 - 16 cylinderhead screws torx T20 (M4 x 10)
 - 4 cylinderhead screws torx T10 (M3 x 12)

Nominal width		Part No.	
6 U (c)	2 x 3 U (a)	IEC60297	IEEE1101.10
50 HP	32 HP	12K959-2	12K959-3
40 HP	42 HP	12K949-2	12K949-3



TAPPED STRIPS FOR FRONT EXTRUSIONS

Scope of delivery	Description	Part No.
1 piece tapped strip	M2.5 32 HP = 162.56 mm	61-463
1 piece tapped strip	M2.5 42 HP = 213.36 mm	61-464

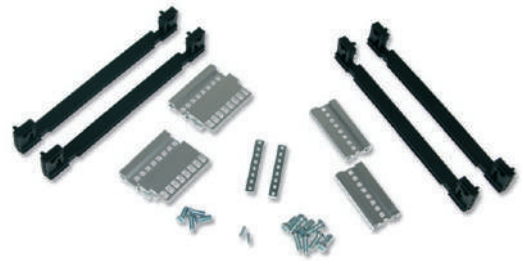
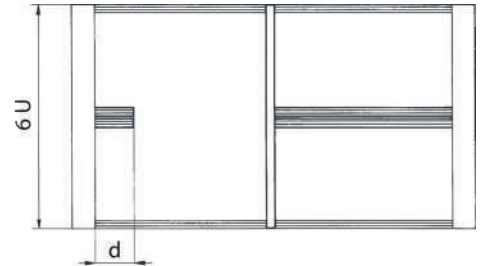
Accessories

EMC WIDE DIVISIONS SMALL

- For dividing 6 U systems
- Direct mounting onto the height extrusion and side panel
- For width of 4 and 8 HP
- Other sizes on request

Scope of delivery:

- 2 divider extrusions front
- 2 divider extrusions rear
- 2 tapped strips M2.5
- 8 cylinder head screws M4 x 10
- 4 slotted countersunk screws M4 x 10
- 2 set screws for fixing of tapped strips M2.5 x 8
- 2 card guides 160 mm (4 pieces for 8 HP version)



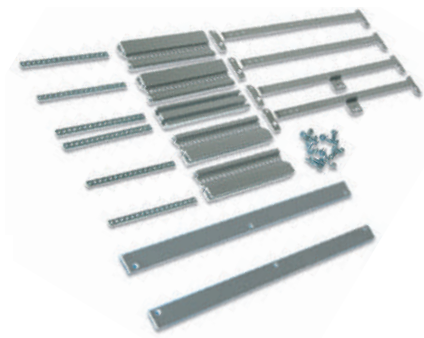
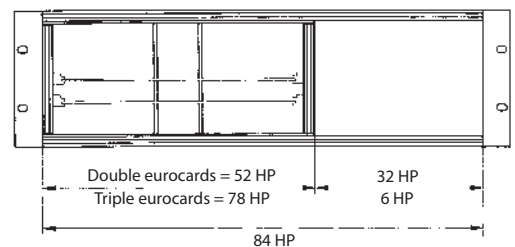
Description	Part No. d = 4 HP	Part No. d = 8 HP
Front sub division vertical small IEEE	80-504-11	80-508-11
Front sub division vertical small IEC	80-204-11	80-208-11

HORIZONTAL CARD MOUNTING KITS FOR DOUBLE EUROCARDS

- For double Eurocards (6 U)
- The horizontal card mounting kit can be fitted recessed by using two additional extrusions
- If no overall fan plates is used, the top and bottom cover plate has to be ordered separately
- Fan front panels, card guides and front panels see below

Scope delivery:

- 4 distance plates (2 front | 2 rear)
- 4 longitudinal extrusions (2 front | 2 rear)
- 1 centre extrusion
- 6 tapped strips M2.5
- 1 set assembly material
- Top and bottom cover plate has to be ordered separately



Mounting height	Usable height	Backplane	Cover plate	
			top	bottom
3 U	20 HP	14K971-60	21N602-90	21N602-90
4 U	28 HP	14K981-60	21N602-90	21N603-90
6 U	48 HP	14K991-60	21N606-90	21N607-90

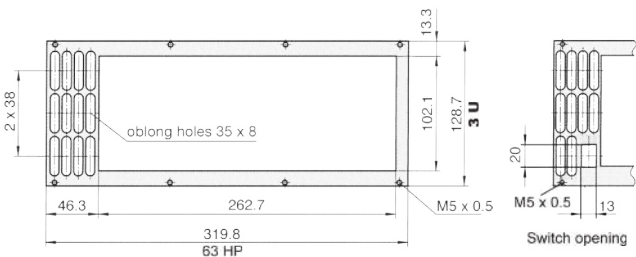
Accessories

FAN FRONT PANELS FOR HORIZONTAL MOUNTING KITS

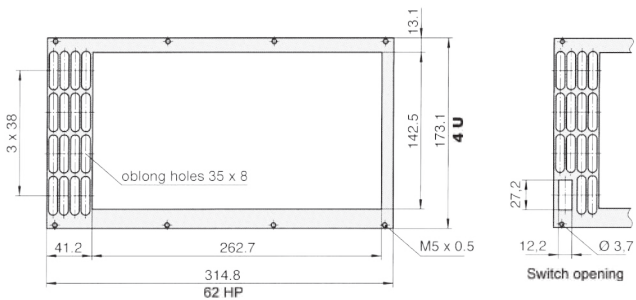
- For horizontal mounting of double Eurocards
- Aluminum 2.5 mm, clear anodised (non-conductive)
- With cutout for power switch

Scope of delivery:

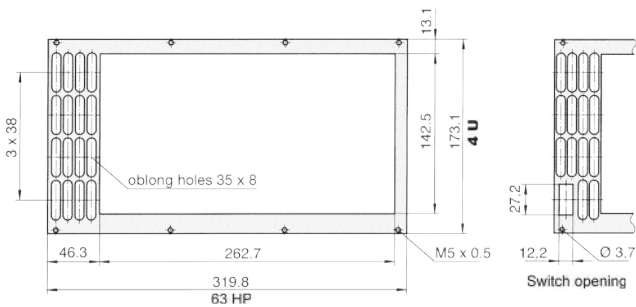
- 1 perforated fan front panel



	Height	Width	Air passage		Part No.
			mm ²	sq. in	
Without switch opening	3 U	63 HP	3195	4.95	21N363-07
With switch opening	3 U	62 HP	2662	4.12	21N363-02



	Height	Width	Air passage		Part No.
			mm ²	sq. in	
Without switch opening	4 U	62 HP	4260	6.6	21N462-01
With switch opening	4 U	62 HP	3727	5.77	21N462-02



	Height	Width	Air passage		Part No.
			mm ²	sq. in	
Without switch opening	4 HE	63 TE	4260	6.6	21N463-07
With switch opening	4 HE	63 TE	3727	5.77	21N463-02

FRONT PANEL SCREWS

- Set of 10 screws
- With treaded or press-fit bush
- 8 screws are necessary per front panel

Description	Part No.
Recessed round head screw, M2.5 x 11.3 with threaded bush M5 x 0.5	63-129
Recessed round head screw, M2.5 x 11.3 with press-fit bush Ø 3.7	63-444

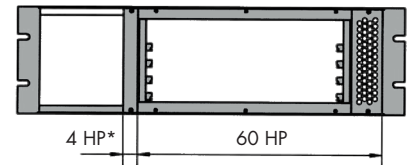
Accessories

EMC HORIZONTAL CARD MOUNTING KIT FOR DOUBLE EUROCARDS (6 U)

- For 160 mm card depth
- For backplane mounting with insulating strips
- Fan slot on the right side of the horizontal installation kit

Lieferumfang:

- 1 connector plate
- 2 + 14 card guides
- 2 cover plates
- 2 endplates
- 2 longitudinal extrusions
- 2 internal extrusions
- 4 insulating strips
- 1 fan plate without fan
- 4 tapped strips M2.5
- 1 set of assembly material
- 1 set of EMC gaskets
- 14 ESD clips and 14 ESD springs (IEEE version only)



*This space is necessary for the air flow. Assemble blind panel or monitoring module



Height	Nominal height	Part No.	
		IEEE	IEC
4 U	28 HP	14K987-60	14K986-60

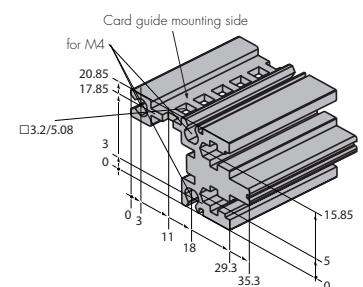
EMC FRONT SUB DIVISION

EMC FRONT SUB DIVISION HORIZONTAL IEC FOR CARD GUIDES

- For sub division of front and rear
- Card guides can be applied on one side
- EMC level: Superior
- Only one special extrusion needed
- Easy and quick assembly
- Cost effective solution
- Delivered as a kit
- Usable width: 84 HP
- Other sizes on request

Scope of delivery:

- 1 front double extrusion IEC-special, clear passivated
- 2 tapped strips M2.5
- 4 cylinder head screws torx T0 (M4 x 10)



Description	Part No.
EMC front sub division horizontal IEC for card guides	63K837-24

Accessories

EMC FRONT SUB DIVISION

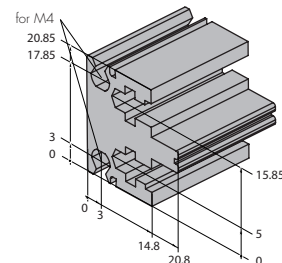
EMC FRONT SUB DIVISION HORIZONTAL IEC

- For sub division of front and rear
- No possibility of mounting card guides
- EMC level: Superior
- Only one special extrusion needed
- Easy and quick assembly
- Cost effective solution
- Delivered as a kit
- Usable width: 84 HP
- Other sizes on request

Scope of delivery:

- 1 front double extrusion IEC-special, clear passivated
- 2 tapped strips M2.5
- 4 torx cylinder head screws M4 x 10 (T20)

Description	Part No.
EMC front sub division horizontal IEC	63K837-22



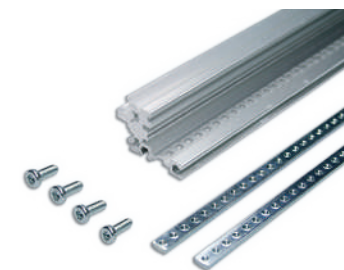
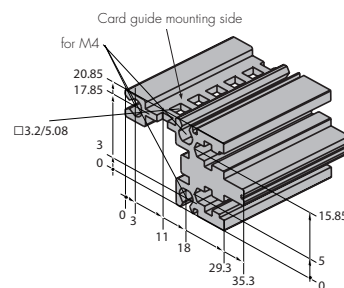
EMC FRONT SUB DIVISION HORIZONTAL IEEE FOR CARD GUIDES

- EMC level: Superior
- Only one special extrusion needed
- Card guides can be applied
- Easy and quick assembly
- Cost effective solution
- Usable width: 84 HP
- Other sizes on request

Scope of delivery:

- 1 front double extrusion IEEE-special clear passivated
- 2 tapped strips M2.5
- 4 cylinder head screws torx T20 (M4 x 10)

Description	Part No.
EMC front sub division horizontal IEC for card guides	63K837-23



Accessories

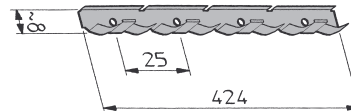
EMC FRONT SUB DIVISION

HF SPRING

- Stainless steel
- Snapped-in on the extrusion

Scope of delivery:

- 2 HF spring 84 HP



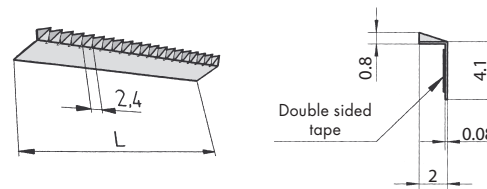
Description	Part No.
1 set of 2 HF spring 84 HP	7739-14-4

EMC CONTACT STRIPS

- BeCu galvanized
- For front panels, fixing on extrusion
- Self-adhesive

Scope of delivery:

- 2 EMC contact strips



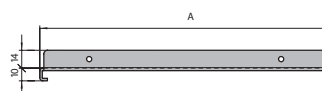
Width	Length		Part No.
	mm	inch	
84 HP	424.2	16.7	63-836-70

MOUNTING CHASSIS FULL DEPTH

- For mounting non-standard modules and components
- Mounting chassis is fixed directly on the side panels
- Aluminum 2 mm, raw

Scope of delivery:

- 1 mounting chassis (depth: < 230 mm can be mounted with 4 screws | > 230 mm with 6 screws)

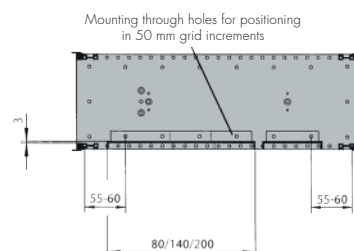


Case depth		Chassis depth A		Part No.		
mm	inch	mm	inch	42 HP	63 HP	84 HP
245	9.64	168	6.61	14M028	14M029	14M030
305	12	228	8.97	14M031	14M032	14M033
395	15.55	318	12.52	-	14M034	14M035
500	19.68	428	16.65	-	-	14M036

Scope of delivery for assembly material:

- 4 cylinder head screw torx T20 (M4 x 6)
- 4 earthing nut M4

Description	Part No.
Assembly material for mounting chassis	63K861



Accessories

MOUNTING CHASSIS FOR MOUNTING OF POWER SUPPLIES, ETC.

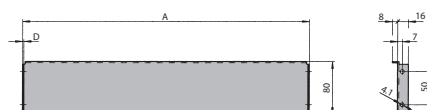
CHASSIS DEPTH 80 MM

Case Width	A		D		Part No.
	mm	inch	mm	inch	
84 HP	431.5	16.98	2	0.08	14-832

Scope of delivery for assembly material:

- 4 cylinder head screw torx T20 (M4 x 6)
- 4 earthing nut M4

Description	Part No.
Assembly material for mounting chassis with torx-screws	63K861



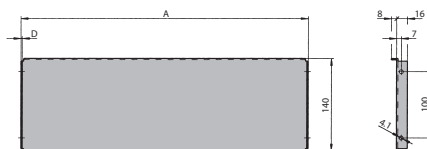
CHASSIS DEPTH 140 MM

Case Width	A		D		Part No.
	mm	inch	mm	inch	
42 HP	218.2	8.59	1.5	0.06	14-833
63 HP	324.9	12.79	1.5	0.06	14-834
84 HP	431.5	16.98	2	0.08	14-836

Scope of delivery for assembly material:

- 4 cylinder head screw torx T20 (M4 x 6)
- 4 earthing nut M4

Description	Part No.
Assembly material for mounting chassis with torx-screws	63K861



Accessories

MOUNTING CHASSIS FOR HORIZONTAL MOUNTING OF EUROCARDS

CHASSIS DEPTH 200 MM

- The hole pattern allows single, double and triple Eurocards to be mounted

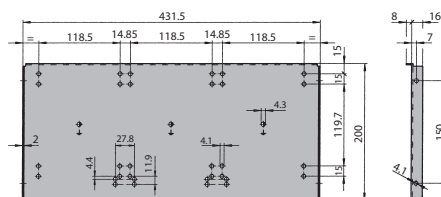
Case width	Part No.
84 HP	14-840

ASSEMBLY MATERIAL

Scope of delivery:

- 4 cylinder head screw torx T20 (M4 x 6)
- 4 earthing nut M4

Description	Part No.
Assembly material for mounting chassis with torx-screws	63K861



MOUNTING SET FOR ONE EUROCARD

Scope of delivery:

- 2 front extrusions
- 2 internal extrusions
- Card guides (2 to 6 pieces)
- 2 tapped strips
- Assembly material

Extrusion length	Part No.
4.5 HP IEC	80-204-11
8.5 HP IEC	80-208-11
12.5 HP IEC	80-212-11
4.5 HP IEEE	80-504-11
8.5 HP IEEE	80-508-11

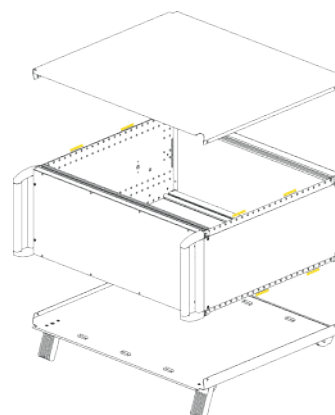
EMC SHIELDING

GASKETS FOR ADVANCED EMC LEVEL

- Vertical gaskets for cover plates (partial)
- To achieve an advanced EMC level
- No additional gaskets for width necessary

Depth gaskets for covers:

Case depth		Scope of delivery	Part No.
mm	inch		
245	9.64	4 self-adhesive HF gaskets L = 30 mm	63-836-07
305	12.00	4 self-adhesive HF gaskets L = 30 mm	63-836-07
395	15.55	8 self-adhesive HF gaskets L = 30 mm	63-836-08
500	19.68	12 self-adhesive HF gaskets L = 30 mm	63-836-09



Accessories

EMC SHIELDING

GASKETS FOR SUPERIOR EMC LEVEL

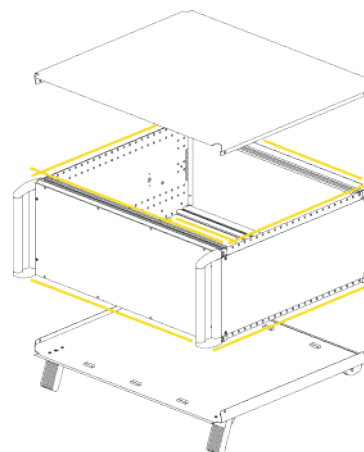
- Vertical and horizontal gaskets for cover plates
- To achieve superior EMC level
- Order 1 set each for width and depth

Width gaskets for covers:

Width	Scope of delivery	Part No.
42 HP	4 self-adhesive HF gaskets L = 216.5 mm	63-836-20
63 HP	4 self-adhesive HF gaskets L = 323 mm	63-836-21
84 HP	4 self-adhesive HF gaskets L = 430 mm	63-836-23

Depth gaskets for covers:

Depth mm	inch	Scope of delivery	Part No.
245	9.64	4 self-adhesive HF gaskets L = 195 mm	63-836-10
305	12.00	4 self-adhesive HF gaskets L = 255 mm	63-836-11
395	15.55	4 self-adhesive HF gaskets L = 345 mm	63K836-04
500	19.68	4 self-adhesive HF gaskets L = 445 mm	63K836-05



EMC DESIGN FRONT PANEL

- For front panels, pushing on side panel
- For additional increase of EMC to advanced level
- Aluminium, clear passivated

Scope of delivery:

- 2 EMC front extrusion
- 2 EMC springs
- Assembly material (2 screws torx T8, adhesive foil)



Case height	Part No.
2 U	7820-93
3 U	7820-94
4 U	7820-90
6 U	7820-102

EMC CONTACT STRIPS (ADVANCED EMC LEVEL)

- For front panels, fixing on extrusion
- Self-adhesive

Scope of delivery:

- 2 contact strips

Width	Length	Part No.
42 HP	212.1 mm	63-836-67
63 HP	318.1 mm	63-836-68
84 HP	424.2 mm	63-836-70

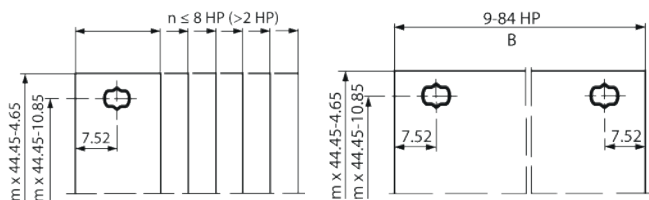


Accessories

FRONT PANELS

FLAT FRONT PANELS

- For subracks and enclosures, solid
- Aluminum 2.5 mm, clear anodised (non-conductive)
- 1 HP and 2 HP are divider extrusions (not flat panels)



Scope of delivery:

- 1 flat front panel

Flat front panels for subracks and enclosures, solid:

Width HP	B		Height			Part No.		
	mm	inch	1 U 39.8 mm	ca. 1 U* 42.15 mm	2 U 84.2 mm	3 U 128.7 mm	4 U 173.1 mm	6 U 262 mm
2	10.0	0.39	—	—	—	21N302	—	21N602
3	15.2	0.59	—	—	—	21N303	21N403	21N603
4	20.1	0.79	—	—	—	21N304	21N404	21N604
5	25.2	0.99	—	—	—	21N305	21N405	21N605
6	30.3	1.19	—	—	—	21N306	21N406	21N606
7	35.3	1.38	—	—	—	21N307	21N407	21N607
8	40.4	1.59	—	—	—	21N308	21N408	21N608
10	50.6	1.99	—	—	—	21N310	21N410	21N610
11	55.7	2.19	—	—	—	21N311	—	—
12	60.7	2.38	—	—	—	21N312	21N412	21N612
14	70.9	2.79	—	—	—	21N314	21N414	21N614
16	81.1	3.19	—	—	—	21N316	21N416	21N616
20	101.4	3.59	—	—	—	21N320	21N420	21N620
21	106.5	4.19	—	—	—	21N321	21N421	21N621
28	142.0	5.59	—	—	—	21N328	—	21N628
32	162.3	6.38	—	—	—	21N332	21N432	—
42	213.1	8.38	—	—	21N242	21N342	21N442	21N642
52	263.9	10.38	—	—	—	21N352	21N452	21N652
63	319.8	12.59	—	—	21N263	21N363	21N463	21N663
81	411.3	16.19	—	—	21N281	21N381	21N481	21N681
84	426.5	16.79	21N184	21N084*	21N284	21N384	21N484	21N684

* Coverplates for 1 U fan opening

Front panel screws:

- Set of 10 screws, M2.5 x 11.3, with screw retainer

Description	Part No. (10 pieces)
Screws torx M2.5 x 11.3, with plastic screw retainer	63K159
Milled edge screws recessed M2.5 x 11.3, with plastic screw retainer	63-159

Accessories

EMC FRONT PANELS

EMC FILLER PANELS WITH EMC GASKET

- High stability (U-profile)
- Extruded aluminum
- Pressed-in centring pin and bushes M2.5
- Front side clear anodised | rear side conductive



Scope of delivery:

- 1 EMC front panel incl. pressed-in centering pin and bushes M2.5 (pressed-in)

EMC front panels:

Width	Part No.		
	3 U	4 U	6 U
4 HP	66-514-73	66-514-74	66-514-76
5 HP	66-515-73		66-515-76
6 HP	66-516-73	66-516-74	66-516-76
8 HP	66-518-73	66-518-74	66-518-76
9 HP	66-519-73		66-519-76
10 HP	66-520-73		66-520-76
12 HP	66-522-73	66-522-74	66-522-76
14 HP	66-534-73		66-534-76

EMC gasket (stainless steel):

Height	Part No.		
	1 piece	10 pieces	100 pieces
3 U	81-062-03	81-062-03-1	81-062-03-2
4 U	81-062-04	81-062-04-1	81-062-04-2
6 U	81-062-06	81-062-06-1	81-062-06-2

Front panel screws:

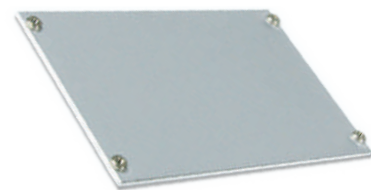
- Front panel width < 9 HP = 2 screws
≥ 10 HP = 4 screws

Description	Part No.
Screw torx T8 (M2.5 x 11.3)	5443-08
Round head screw, cross recessed M2.5 x 12.7	61-287

EMC FRONT PANELS

EMC FILLER PANELS WITHOUT EMC GASKET

- Front panel standard, solid
- Front clear anodised | rear conductive
- Basic EMC level



Scope of delivery:

- 1 front panel incl. press-fit bushes M2.5 (pressed-in)

EMC filler panels without gasket:

Width HP	Part No.		
	3 U	4 U	6 U
4	21B304		
10	21B310		
12	21B312		
16	21B316	21B416	
21	21B321	21B421	21B621
42	21B342	21B442	21B642
63	21B363	21B463	
84	21B384	21B484	21B684

Front panel screws:

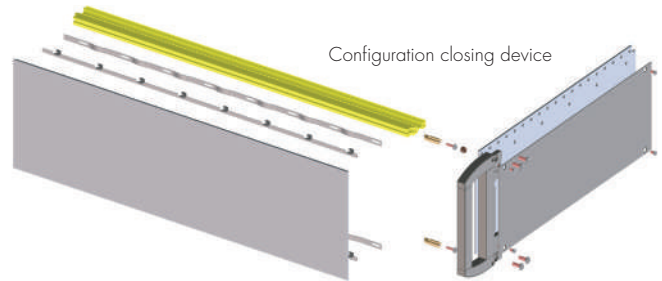
- Front panel width < 9 HP = 2 screws
≥ 10 HP = 4 screws

Description	Part No.
Screw torx T8 (M2.5 x 11.3)	5443-08
Round head screw, cross recessed M2.5 x 12.7	61-287

Accessories

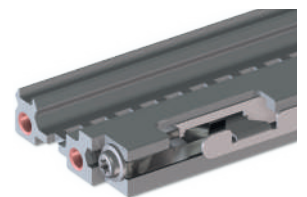
EMC DESIGN FRONT PANEL

- Aluminum 2.5 mm (conductive)
- Front panel without visible screws
- Closes the front and rear side of the chassis with big shielding effect
- Contact between flat front panel and chassis is made with an EMC gasket



Scope of delivery:

- 1 EMC design front panel
- 2 plate slider
- 2 holder
- 2 locking device
- 2 filister head screw M2.5 x 40



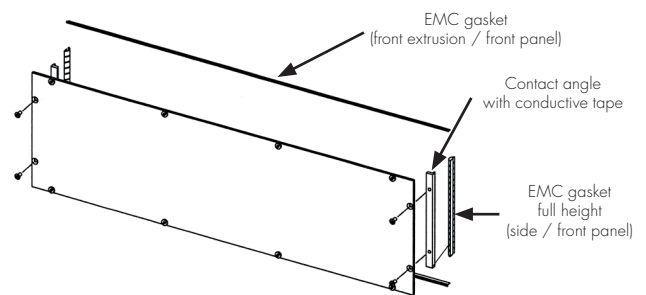
Width	Part No.			
	2 U	3 U	4 U	6 U
42 HP	24B242	24B342	24B442	24B642
63 Hp	24B263	24B363	24B463	24B663
84 HP	24B284	24B384	24B484	24B684

EMC FLAT FRONT PANELS SUPERIOR EMC LEVEL

Scope of delivery:

- 1 EMC flat front panel
- Contact angle, incl. screws
- EMC gasket for contact angle, front extrusion, front panel

Width	Part No.			
	2 U	3 U	4 U	6 U
42 HP	21D242	21D304		
63 HP	21D263	21D310	21D463	
84 Hp	21D284	21D384	21D484	21D684



Front panel screws:

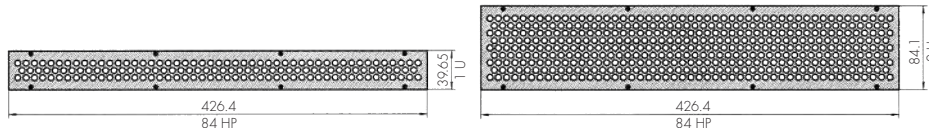
- Front panel width 42 HP = 4 screws
- Front panel width 63 HP = 6 screws
- Front panel width 84 HP = 8 screws

Description	Part No. 10 pieces
Torx screws M2.5 x 11.3 size T8 with press-fit bush	63K480
Screw recessed M2.5 x 11.3 with press-fit bush	63-444
Screw cross recessed M2.5 x 12.7 with pressfit bush	63-480

Accessories

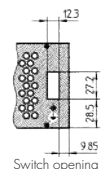
PERFORATED EMC FRONT PANEL

- Front anodised, rear conductive
- Advanced EMC level
- Width: 84 HP



Scope of delivery:

- Perforated flat front panel



Height	Air passage		Part No.		
			with switch opening	without switch opening	
1 U	39.65 mm	1.56"	4'100 mm ²	21C184-01	
2 U	84.1 mm	3.31"	12'300 11'700 mm ²	21C284-01	21C284-02

Front panel screws:

Description	Part No. 10 pieces
Screws torx T8 (M2.5 x 11.3) with press-fit bush	63K480
Screws recessed M2.5 x 11.3 with press-fit bush	63-444
Screws cross recessed M2.5 x 12.7 with press-fit bush	63-480

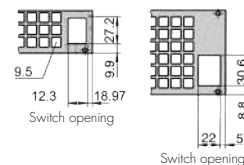
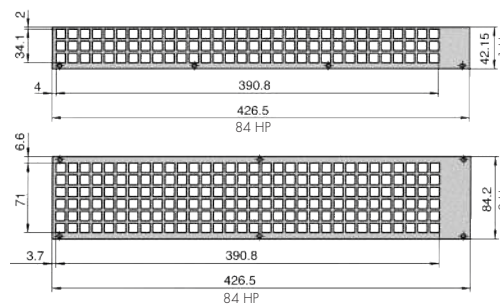
FAN FRONT PANELS

FAN FRONT PANELS 84 HP FOR VERTICAL VENTILATION

- Fan front panel: Perforated and designed with optimum air flow rate
- Available with or without switch cut-out (switch opening 22 x 30.6 mm)
- Aluminum 2.5 mm, clear anodised (non-conductive)

Scope of delivery:

- 1 perforated fan front panel



Description	Height	Air passage		Part No.
		mm ²	sq. inch	
Without switch opening	~ 1 U	8664	13.42	21N084-01
With switch opening	~ 1 U	8664	13.42	21N084-02
Without switch opening	2 U	17328	26.85	21N284-01
With switch opening	2 U	17328	26.85	21N284-02

Front panel screws:

- Set of 10 screws, M2.5 x 11.3
- With screw retainer
- Fan front panel ~1 U = 4 screws
2 U = 6 screws

Description	Part No. 10 pieces
Screws torx (M2.5 x 11.3) with plastic screw retainer	63K159
Milled edge screws recessed M2.5 x 11.3, with screw retainer	63-159

Accessories

FAN FRONT PANELS

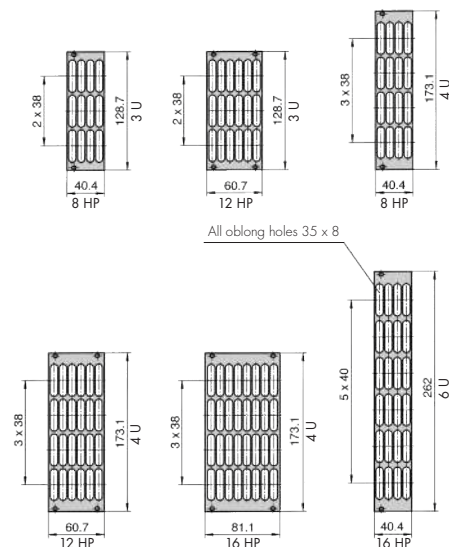
FAN FRONT PANELS FOR HORIZONTAL VENTILATION

- Aluminum 2.5 mm, clear anodised (non-conductive)

Scope of delivery:

- 1 perforated fan front panel

Height	Width	Air passage		Part No. 1 piece
		mm ²	sq. inch	
3 U	8 HP	3'195	4.95	21N308-01
	12 HP	4'793	7.42	21N312-01
4 U	8 HP	4'260	6.6	21N408-01
	12 HP	6'390	9.9	21N412-01
	16 HP	8'520	13.2	21N416-01
6 U	8	6'390	9.9	21N608-01
	12 HP	9'586	14.85	21N612-01



Front panel screws:

- Set of 10 screws, M2.5 x 11.3
- With screw retainer
- Fan front panel width up to 8 HP = 2 screws | ≥ 12 TE = 4 screws

Description	Part No. 10 pieces
Screws torx (M2.5 x 11.3) with plastic screw retainer	63K159
Milled edge screws recessed M2.5 x 11.3, with screw retainer	63-159

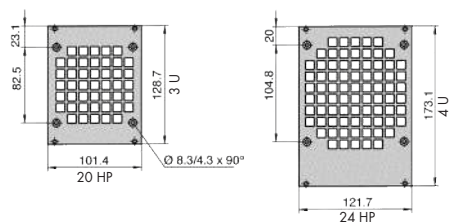
FAN FRONT PANELS FOR DIRECT FAN MOUNTING

- Aluminum 2.5 mm, clear anodised (non-conductive)

Scope of delivery:

- 1 perforated fan front panel

Description	Height	Width	Air passage		Part No.
			mm ²	sq. inch	
Without switch opening	3 U	20 HP	4051	6.27	21N320-04
	4 U	24 HP	7022	10.88	21N424-03



Accessories

FAN FRONT PANELS

FAN FRONT PANELS FOR DIRECT FAN MOUNTING

Front panel screws:

- Set of 10 screws, M2.5 x 11.3
- With screw retainer

Description	Part No. 10 pieces
Screws torx (M2.5 x 11.3) with plastic screw retainer	63K159
Milled edge screws recessed M2.5 x 11.3 with plastic screw retainer	63-159

Assembly material for fan mounting:

Description	Part No. 10 pieces
Countersunk screw, recessed M4 x 10	5342-10
Hexagonal nut M4, 0.8D	5620-51

HINGED FRONT PANELS

- Hinges are attached to the front extrusions of the subrack or case
- Aluminum 2.5 mm, clear anodised (non-conductive)

Scope of delivery:

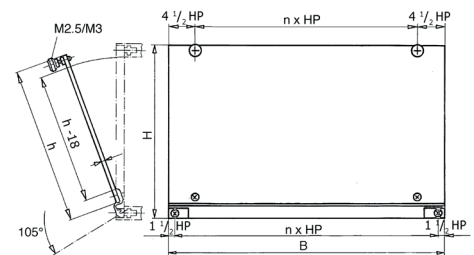
- 1 Front panel
- Hinge extrusion
- Assembly material M2.5, incl. hinges

Width	Part No.		
	3 U	4 U	6 U
63 HP	25N363-19	25N463-19	
84 HP	25N384-19	25N484-19	25N684-19

Dimensions:

Nominal width	Width B	
	mm	inch
63 HP	320.04	12.60
84 HP	426.72	16.80

Nominal height	Height H		Height h	
	mm	inch	mm	inch
3 U	128.7	5.07	117	4.61
4 U	173.15	6.81	161.4	6.35
6 U	262.05	10.31	250.3	9.85



Accessories

BOTTOM-HINGED FRONT PANELS

EMC TOP / BOTTOM-HINGED FRONT PANELS

- Width: 84 HP
- Optimum protection from electromagnetic interference
- Aluminum 2.5 mm
- Front anodised | rear conductive

Scope of delivery:

- 1 EMC front panel
- Hinge extrusions
- Assembly material M2.5, incl. hinges
- EMC gaskets

EMC-Level	Part No.		
	3 U	4 U	6 U
Advanced	25C384-11	25C484-11	25C684-11
Superior	25D384-11	25D484-11	25D684-11

SIDE-HINGED FRONT PANELS

- Aluminum 2.5 mm, clear anodised (non-conductive)

Scope of delivery:

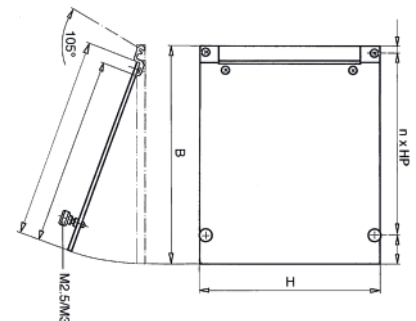
- 1 front panel
- Hinge extrusion
- Assembly material M2.5, incl. hinges

Width HP	Part No.		
	3 U	4 U	6 U
42	25N342-29		
63	25N363-29		
84	25N384-29	25N484-29	25N684-29

Dimensions:

Nominal Width			Width B		Width b	
HP	mm	inch	mm	inch	mm	inch
42	213.36	8.4	213.1	8.39	201	7.91
63	320.04	12.6	319.8	12.59	307.7	12.11
84	426.72	16.8	426.5	16.79	414.3	16.31

Nominal height U	Height H	
	mm	inch
3	128.7	5.06
4	173.15	6.81
6	262.05	10.31



Accessories

HEAT SINK FRONT PANELS

- For subracks and enclosures
- Width 42 HP
- Cooling fins in pitch of 1 1/2 HP
- Aluminum anodised or clear passivated
- EMC version with mounted brackets for slide in of EMC gaskets 81-062-xx
- Customised versions on request



Scope of delivery:

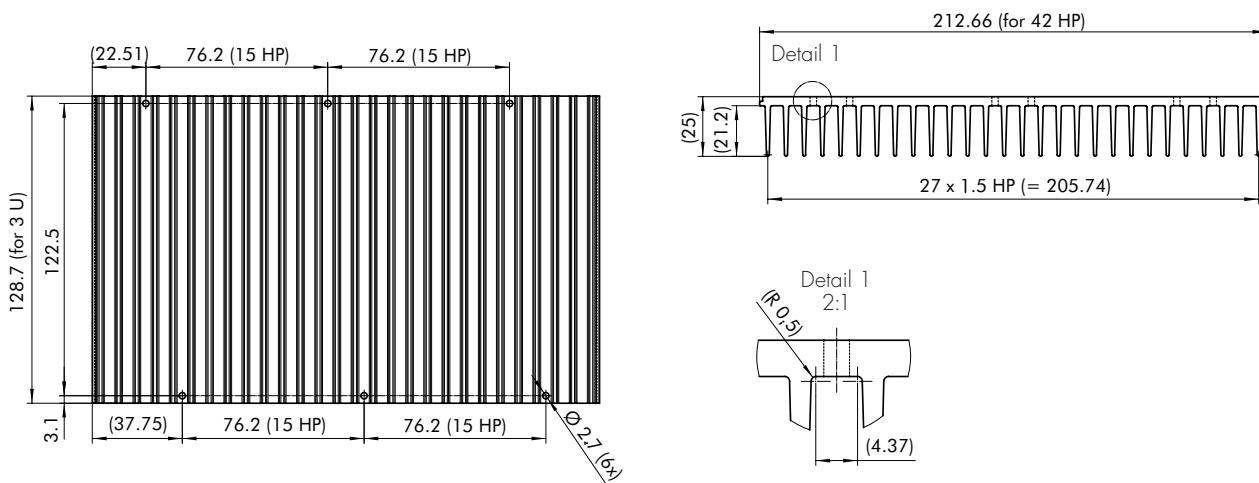
- 1 heat sink front panel M2.5 incl. hinges

Assembly Material:

Description	Surface	Width	Height	Part No.
Heat sink front panel	clear anodised	42 HP	3 U	66-100-71
Heat sink front panel	black anodised	42 HP	3 U	66-100-72
EMC heat sink front panel	clear passivated	42 HP	3 U	21F342

Description	Part No. (1 piece)
Cylinder head screw torx T8 (M2.5 x 10)	5470-09
Cross recessed cylinder head screw M2.5 x 10	5325-10

Drawing heat sink front panel 66-100-71:



EMC GASKET

Scope of delivery:

- Stainless steel

Height	Length	Part No.
	mm	inch
3 U	101.6	4
		1 piece
		81-062-03



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Further general accessories can be found in the brochure "General accessories" or on request.

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Please contact our sales team for more details.

China: +86 21 5866 5908
France: +33 388 56 72 50

Germany: +49 7231 97 34 0
Israel: +972 3 930 50 25

Singapore: +65 6479 8552
Switzerland: +41 44 933 41 11

United Kingdom: +44 1234 838 822
United States: +1 510 656 3400