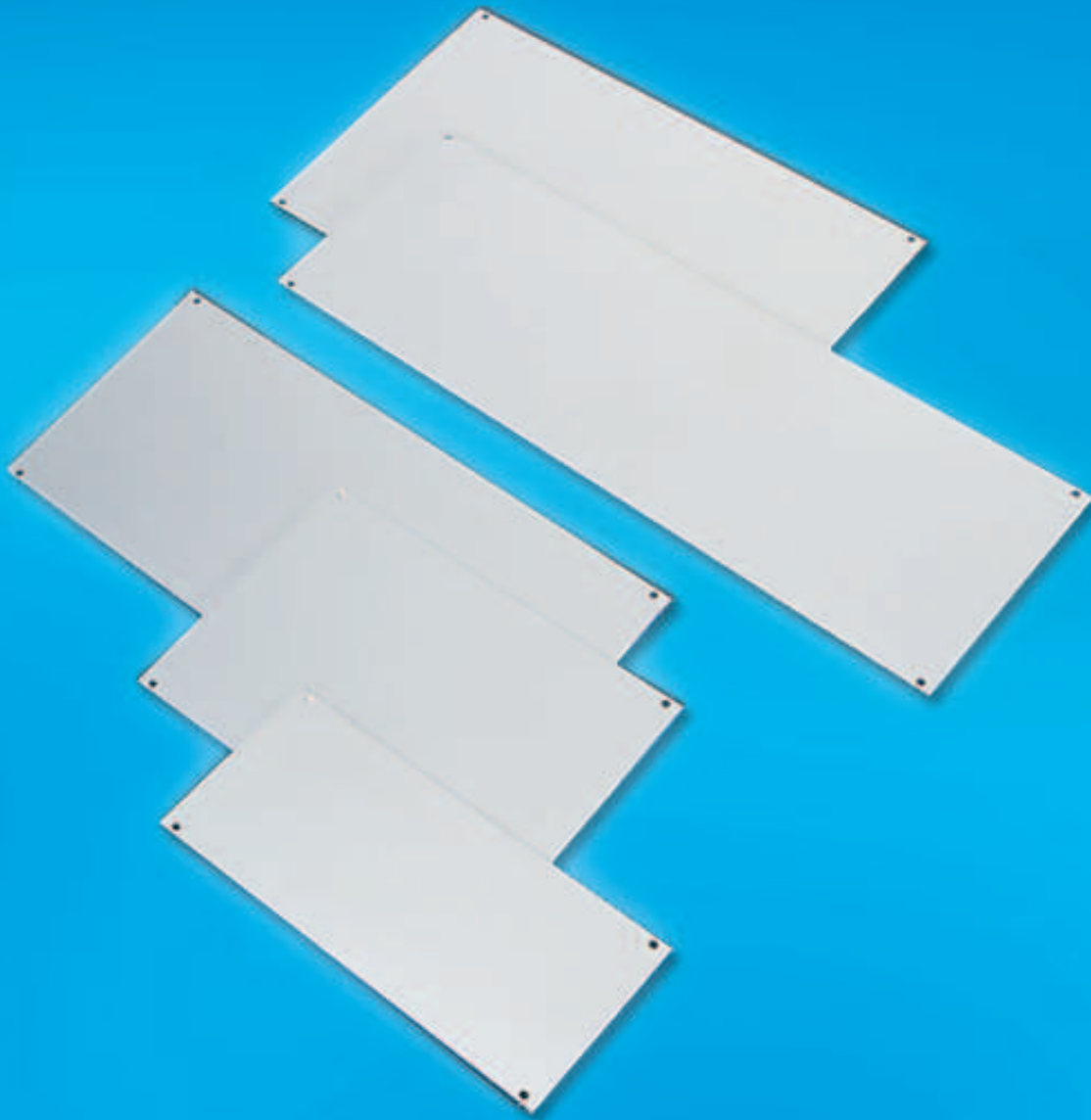
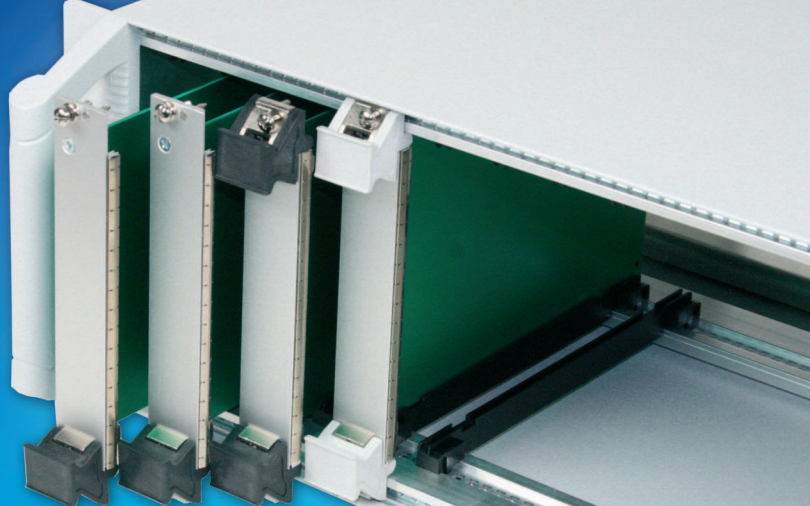




Enclosures & Components

- Flat front panels
- EMC flat front panels
- Fan front panels
- Hinged front panels

Front Panels for Sub Racks and Enclosures



Introduction

Elma is a global manufacturer of products for housing electronic systems. The company provides everything from components, such as modular enclosures, cabinets and backplanes, to complete standard or custom system platforms. Elma also manufactures precision rotary switches. Elma offers a fast, flexible response to customer needs and extensive practical knowledge in tailoring solutions to specific applications.

Founded in 1960, Elma is an industry innovator in the design and manufacture of electronic enclosures and passive electronic components. Elma enjoys a leading position in the VME/VME64x, VXI, VXS, PXI, cPCI, ATCA and Rugged COTS packaging markets. Elma's component products consist of switches, knobs, and LED arrays. Headquartered in Switzerland, with partners in 22 countries, Elma has the ability to respond rapidly, with superior solutions to the requirements of its customers. Elma has a broad base of customers in diverse industries such as telecommunications, industrial control, medical electronics, military and defence.

Elma strives to provide products superior in quality, reliability, performance, and consistently presents new, innovative designs to the market. Elma's product line encompasses well over 16,000 parts, including enclosures, cabinets, high quality switches, LED arrays, knobs and much more. Elma also offers design and integration services backed by responsive and knowledgeable technical support.

Elma's leading quality level is reached through training of all employees and following of systematic procedures per ISO 9001 standards to which Elma has been registered.



Switzerland



United States



Germany



France



United Kingdom



Israel



China



Romania

Why Choose Elma?

Flexibility: Elma tailors solutions to individual applications to ensure fast and cost-effective results.

Experience: extensive practical experience in packaging electronic systems is used to minimise the time taken to develop new customised solutions without compromising system performance or reliability.

Compatibility: because the two key electromechanical components - enclosures and backplanes - are made in-house, Elma guarantees compatibility, consistency and reliability.

Global resources: with manufacturing in Europe and the USA customers benefit from local service backed by global resources.

Custom Solutions

Elma offers a wide range of services to assist our customers with new product introduction (NPI). From custom design and verification testing through agency certification, Elma has the experience to function as an extension of your company's design and compliance engineering team. Combined with Elma's level 4/5 integration capability for both embedded systems and switches. Elma provides a single solution to your outsourcing needs. This allows Elma to take your latest product from prototype to production quickly, cost effectively and with reduced risk.

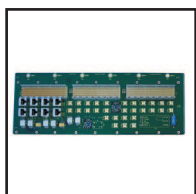
Custom

Customisation is the standard at Elma. With an extensive offering of modular products as a foundation, Elma is able to leverage existing solutions and proven design concepts to meet any custom application. This approach ensures that Elma will provide quality, compliant solutions with significantly reduced lead time, cost and risk.



Custom Enclosures & Components

- Modified standards for ATCA, CPCI, VME/VME64x systems
- IP protection classes
- EMC security



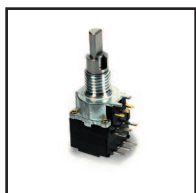
Custom Backplanes

- Modified standards for ATCA, CPCI, VXS VME/VME64x, VXI, PXI, and Switched Fabric
- NSC (non standard-based custom) design
- High-speed LVDS design
- Simulation/Backplane characterisation - HSPICE, S-Parameters



Custom System Platforms

- VME/VME64x, cPCI, ATCA and Rugged
- Design to specification
- 20+ years design experience
- NEBS, ETSI



Custom Switches, Knobs & LEDs

- Modifiable Switches & LEDs
- Integration of Switches, Panels and Other Components
- Custom Switch Bracket Fabrication

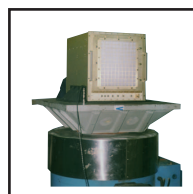
Technical Capabilities

Elma uses the most advanced software and testing equipment to ensure our products comply with military and commercial standards. Elma has the capability to perform environmental testing, thermal testing and EMC testing to meet the desired specifications.



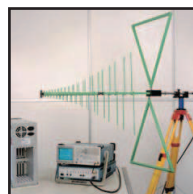
Agency Certification

- UL, CSA
- FCC Class A, B
- CE
- NEBS



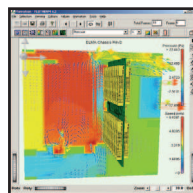
Verification Testing

- Environmental per MIL STD 810D
- Shock/Vibration Facilities



EMC Testing

- MIL STD 461
- FCC Class A, B
- CE
- NEBS



Thermal Testing

- Flowtherm Simulation
- Load card testing
- CFM/LFM Verification

1: Front Panels for Sub Racks and Enclosures



1.1 Flat Front Panels	1_2
------------------------------	------------

1.2 EMC Flat Front Panels	1_3
----------------------------------	------------

1.2.1 EMC Filler Panel with EMC Gasket	1_4
1.2.2 EMC Filler Panel without EMC-Gasket	1_4
1.2.3 EMC Flat Front Panels	1_5
1.2.4 Superior EMC Level	1_6
1.2.5 Perforated EMC Front Panel 84 HP	1_6

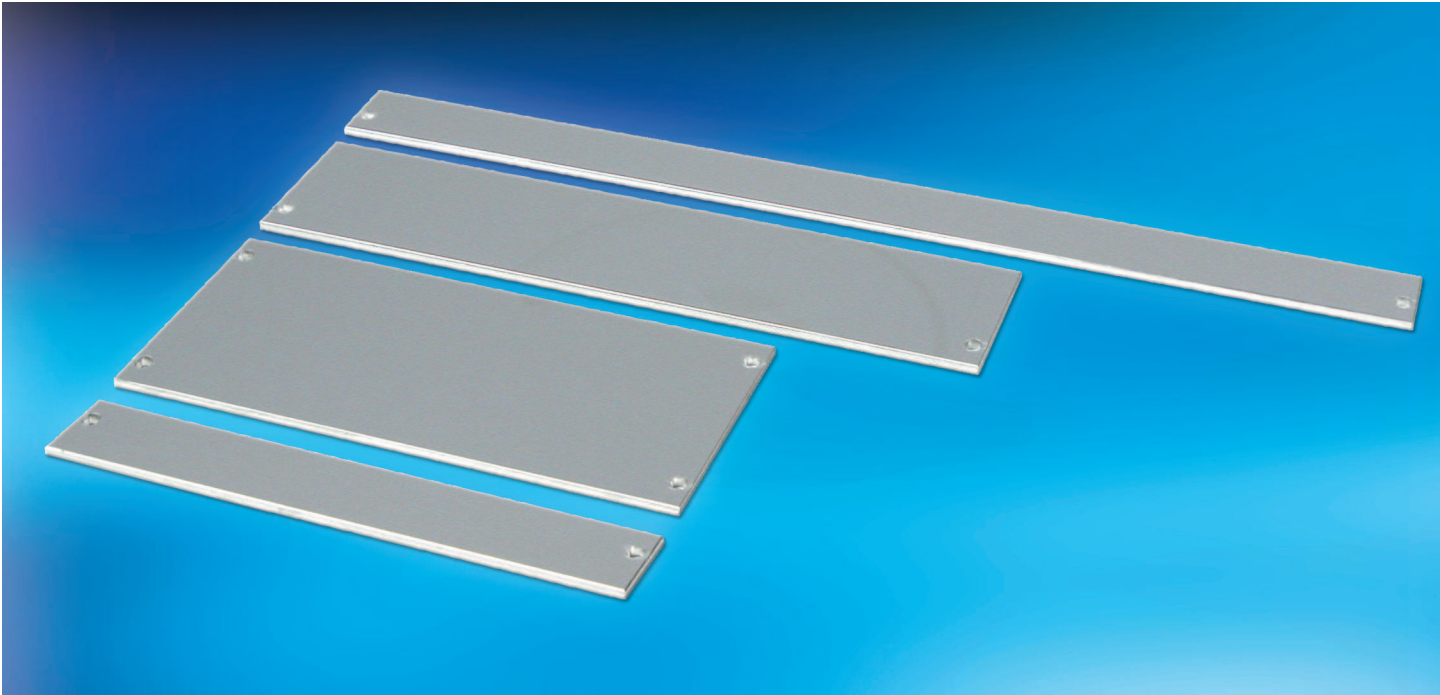
1.3 Fan Front Panels	1_7
-----------------------------	------------

1.3.1 Fan Front Panel 84 HP for Vertical Ventilation	1_7
1.3.2 Fan Front Panel for Horizontal Ventilation	1_8
1.3.3 Fan Front Panels for Direct Fan Mounting	1_8

1 .4 Hinged Front Panels	1_9
---------------------------------	------------

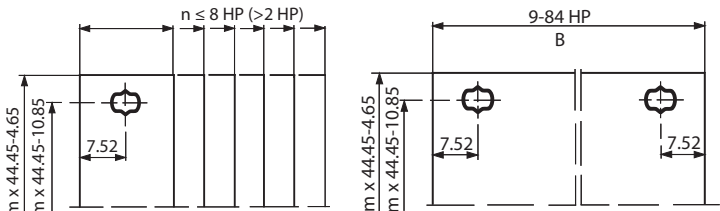
1.4.1 Top / Bottom-Hinged Front Panel	1_9
1.4.2 EMC Top / Bottom-Hinged Front Panel	1_10
1.4.3 Side-Hinged Front Panel	1_10
1.4.4 Accessories	1_11

1: Front Panels for Sub Racks and Enclosures



1.1 Flat Front Panels

- For sub racks and enclosures, solid
- Aluminium 2.5 mm, clear anodised (non-conductive)
- **Scope of delivery:**
 - Flat front panel
- Front panel screws, see below
- ⁽¹⁾ 1 HP and 2 HP are divider extrusions (not flat panels)



1.1 Flat Front Panels for Sub Racks and Enclosures, Solid

Width	B		Height			Part-No.				
	mm	inch	1 U 39.8mm	ca. 1 U* 42.15mm	2 U 84.2mm	3 U 128.7mm	4 U 173.1mm	6 U 262.0mm	7 U 306.5mm	9 U 395.4mm
1 HP ⁽¹⁾	5.0	0.19				66-115-21		66-115-25		66-115-26
2 HP ⁽¹⁾	10.0	0.39				66-107-44	66-107-45	66-107-47		66-107-49
3 HP	15.2	0.59				21N303	21N403	21N603		
4 HP	20.1	0.79				21N304	21N404	21N604		21N904
5 HP	25.2	0.99				21N305	21N405	21N605		
6 HP	30.3	1.19				21N306	21N406	21N606		
7 HP	35.3	1.38				21N307	21N407	21N607		
8 HP	40.4	1.59				21N308	21N408	21N608		
10 HP	50.6	1.99				21N310	21N410	21N610		
11 HP	55.7	2.19				21N311				
12 HP	60.7	2.38				21N312	21N412	21N612		
14 HP	70.9	2.79				21N314	21N414	21N614		
16 HP	81.1	3.19				21N316	21N416	21N616		
20 HP	101.4	3.59				21N320	21N420	21N620		
21 HP	106.5	4.19				21N321	21N421	21N621		
28 HP	142.0	5.59				21N328		21N628		
32 HP	162.3	6.38				21N332	21N432			
42 HP	213.1	8.38			21N242	21N342	21N442	21N642		
52 HP	263.9	10.38				21N352	21N452	21N652		
63 HP	319.8	12.59			21N263	21N363	21N463	21N663		
81 HP	411.3	16.19			21N281	21N381	21N481	21N681		
84 HP	426.5	16.79	21N184	21N084*	21N284	21N384	21N484	21N684	21N784	21N984

* Coverplates for 1 U fan opening

1.1.1 Front Panel Screws

- Set of 10 screws, with screw retainer

Description	Part-No. 10 pcs.
Torx screws M2.5 x 11.3, size T8 with plastic screw retainer	63K159
Milled edge screws recessed M2.5 x 11.3 with plastic screw retainer	63-159

1: Front Panels for Sub Racks and Enclosures



1.2 EMC Flat Front Panels

“Electromagnetic comptability 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 characterstics 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

Note: Throughout the catalogue we put all EMC parts in a yellow table.

1: Front Panels for Sub Racks and Enclosures

1.2.1 EMC Filler Panel with EMC Gasket

- High stability (U-profile)
- Extruded aluminium
- Pressed-in centring pin and bushes M2.5
- Front side clear anodised, rear side conductive
- **Scope of delivery:**
 - EMC front panel incl. pressed-in centering pin and bushes M2.5
- EMC-gasket see below
- Front panel screw see below



1.2.1 EMC Front Panel

Width	Part-No. 3 U	Part-No. 4 U	Part-No. 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

1.2.1.1 EMC Gasket (Stainless Steel)

Height	Part-No. 1 pc.	Part-No. 10 pcs.	Part-No. 100 pcs.
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

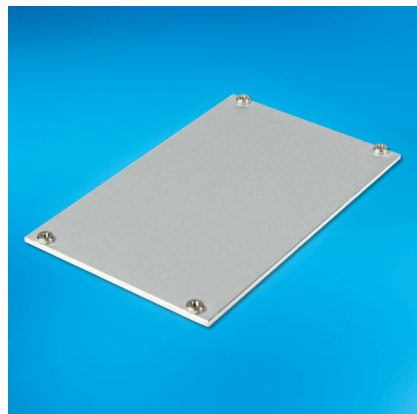
1.2.1.2 Front Panel Screws

- Front panel width up to 9 HP = 2 screws; ≥ 10 HP = 4 screws

Description	Part-No. 1 pc.	Part-No. 100 pcs.
Torx screw, M2.5 x 11.3, size T8	5443-08	1904K41
Round head screw, cross recessed M2.5 x 12.7	61-287	1904-41

1.2.2 EMC Filler Panel without EMC-Gasket

- Front panel standard, solid
- Front clear anodised
- Rear conductive
- Basic level EMC
- **Scope of delivery:**
 - 1 front panel incl. press-fit bushes M2.5 (pressed-in)
- Front panel screws, see below
- Spacer see 1.2.2.2



1.2.2 EMC Filler Panel without Gasket

Width	Part-No. 3 U	Part-No. 4 U	Part-No. 6 U
4 HP	21B304		
10 HP	21B310		
12 HP	21B312		
16 HP	21B316	21B416	
21 HP	21B321	21B421	21B621
42 HP	21B342	21B442	21B642
63 HP	21B363	21B463	21B663
84 HP	21B384	21B484	21B684

1.2.2.1 Front Panel Screws

- Front panel width up to 9 HP = 2 screws; ≥ 10 HP = 4 screws

Description	Part-No. 1 pc.	Part-No. 100 pcs.
Torx screw, M2.5 x 11.3, size T8	5443-08	1904K41
Round head screw, cross recessed M2.5 x 12.7	61-287	1904-41

1: Front Panels for Sub Racks and Enclosures



1.2.2.2 Spacer for EMC Front Panel Flat

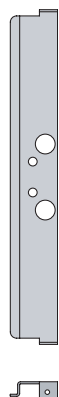
- EMC-Level: Advanced
- **Scope of delivery:**
 - 1 spacer incl. gasket
 - 2 Torx sheet metal screws 2.9 x 6.5; size T 10

Height	Part-No.
3 U	81K023
4 U	81K024
6 U	81K026
7 U	81K027

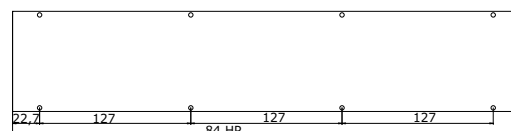
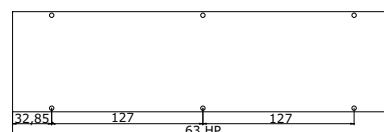
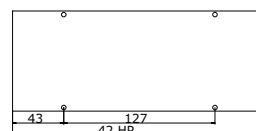
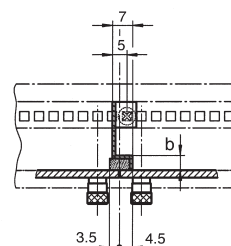
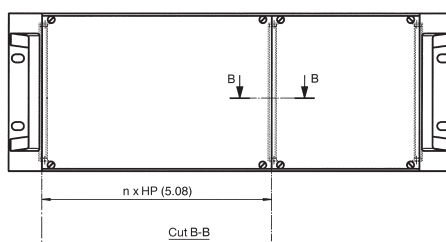
Optional Cross Recessed Screws for Spacer

(Torx round head screws as standard included)

Description	Part-No.
1 set (2 screws)	63-607



Holes in some cases needed for mounting telescopic rails



1.2.3 EMC Flat Front Panels

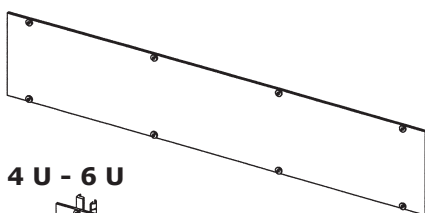
- Aluminium 2.5 mm (conductive)
- Closes the front or rear of the sub rack with very high shielding effectiveness
- Contact between the flat front panel and the case is made via EMC gaskets

1.2.3Advanced EMC Level

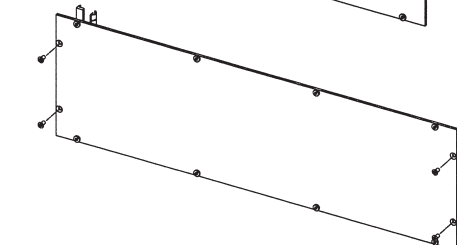
- **Scope of delivery:**
 - EMC flat front panel
 - Contact angle, incl. screws (4 + 6 U version only)
 - EMC gasket for contact angle (4 + 6 U version only)
- Front panel screws see below
 - Front panel width 42 HP = 4 screws
 - Front panel width 63 HP = 6 screws
 - Front panel width 84 HP = 8 screws

Width	Part-No. 1 U	Part-No. 2 U	Part-No. 3 U	Part-No. 4 U	Part-No. 6 U
42 HP		21C242	21C342		
63 HP		21C263	21C363	21C463	
84 HP	21C184	21C284	21C384	21C484	21C684

1 U - 3 U



4 U - 6 U



1.2.3.1 Front Panel Screws

Description	Part-No. 10 pcs.
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 press-fit bush	63-480

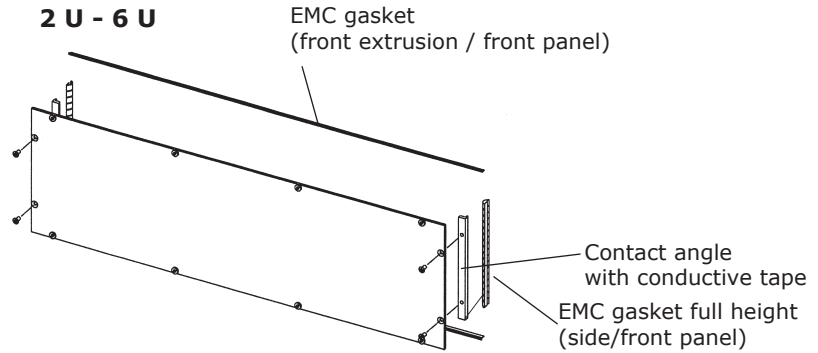
Contact angle

EMC gasket partial
(side/front panel)

1: Front Panels for Sub Racks and Enclosures

1.2.4 Superior EMC Level

- **Scope of delivery:**
 - EMC flat front panel
 - Contact angle, incl. screws
 - EMC gasket for contact angle
 - EMC gasket for front extrusion/front panel
- Front panel screws, see below
 - Front panel width 42 HP = 4 screws
 - Front panel width 63 HP = 6 screws
 - Front panel width 84 HP = 8 screws



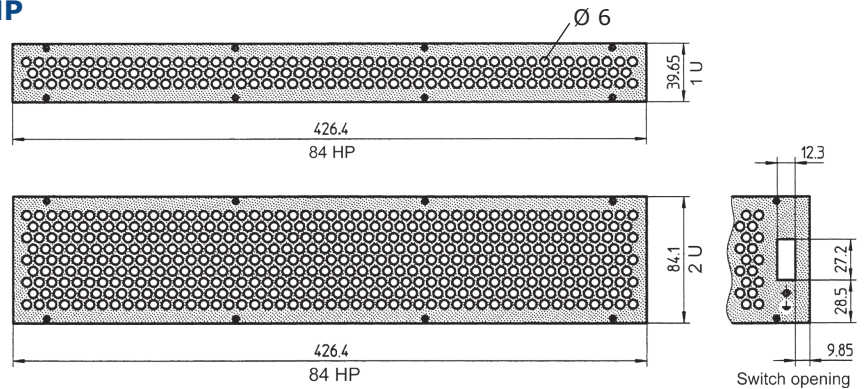
Width	Part-No. 2 U	Part-No. 3 U	Part-No. 4 U	Part-No. 6 U
42 HP	21D242	21D342		
63 HP	21D263	21D363	21D463	
84 HP	21D284	21D384	21D484	21D684

1.2.4.1 Front Panel Screws

Description	Part-No. 10 pcs.
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 press-fit bush	63-480

1.2.5 Perforated EMC Front Panel 84 HP

- Front anodised, rear conductive
- Advanced EMC level
- Width: 84 HP
- **Scope of delivery:**
 - Perforated flat front panel
- Front panel screws see below
- On-off switch see below



1.2.5 Perforated EMC Front Panel 84 HP

Height			Air Passage	Switch Opening	
				Part-No. with	Part-No. without
1 U	39.65 mm	1.56"	41 cm ²	21C184-01	
2 U	84.1 mm	3.31"	123/117 cm ²	21C284-01	21C284-02

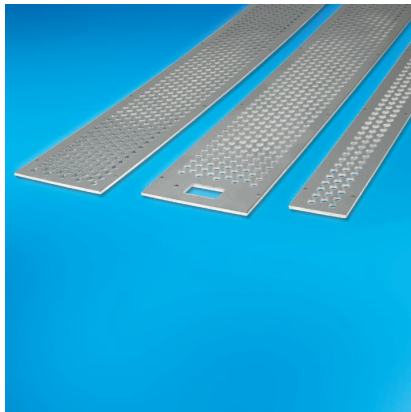
1.2.5.1 Front Panel Screws

Description	Part-No. 10 pcs.
Torx screws M2.5 x 11.3, size T8, 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

1.2.5.2 On-Off Switch

- Black body, plastic
- 2 pole (only on-off switches)
- 250V, 16A
- Quick-connect terminal 6.3 x 0.8 mm
- Cut-out: 12.3 x 27.2 mm (0.48" x 1.07")

Description	Part-No.
On-off switch, indicator light green	69-410-04
On-off switch, without signal light	69-410-09
Single pole switch with momentary function	69-410-10



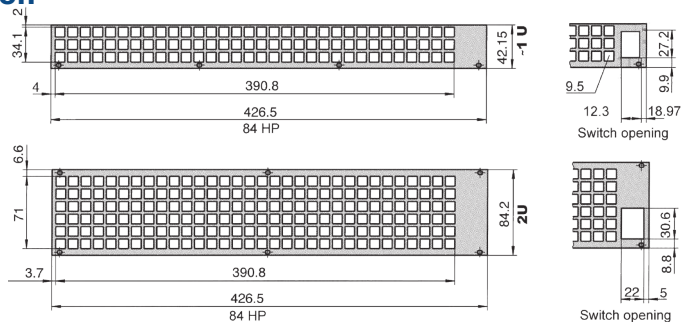
1: Front Panels for Sub Racks and Enclosures



1.3 Fan Front Panels

1.3.1 Fan Front Panel 84 HP for Vertical Ventilation

- Fan front panels are flat, perforated and designed to ensure an optimum air flow rate
- Available with or without switch cut-out (switch opening 1 U = 12.3 x 27.2 mm / 2 U = 22 x 30.6 mm)
- Aluminium 2.5 mm, clear anodised (non-conductive)
- Scope of delivery:**
 - 1 perforated fan front panel
- Front panel screws see below
- On-off switch see below



1.3.1 Fan Front Panel 84 HP for Vertical Ventilation

Description	Height	Air passage		Part-No.
		mm²	sq. in.	
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

1.3.1.1 Front Panel Screws

- Set of 10 screws
- With screw retainer
- Fan front panel ~1 U = 4 screws; 2 U= 6 screws

Description	Part-No. 10 pcs.
Torx screws M2.5 x 11.3 , size T8, with plastic screw retainer	63K159
Milled edge screws recessed M2.5 x 11.3, with plastic screw retainer	63-159



1.3.1.2 On-Off Switch

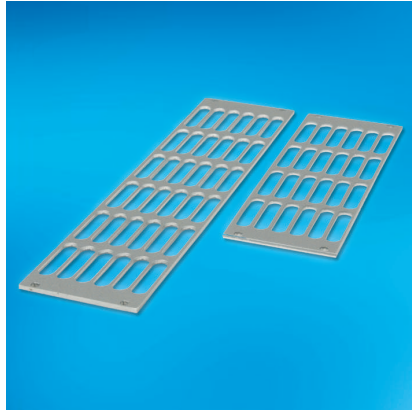
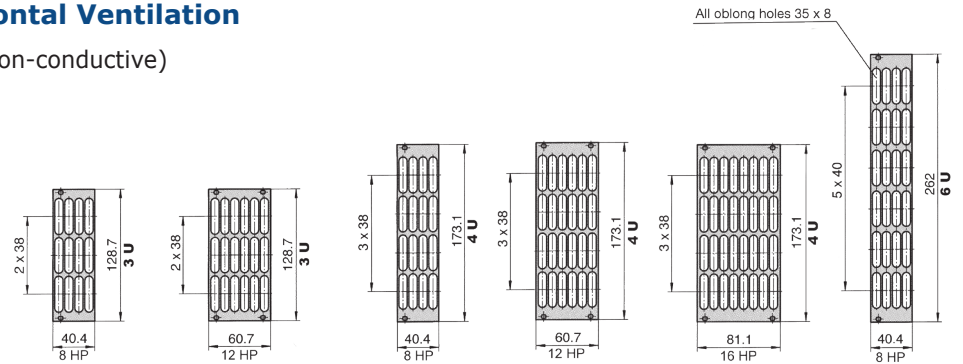
- Black body, plastic
- Signal light transparent
- 2-pole, 250V, 16A
- Quick-connect terminal 6.3 x 0.8 mm
- Cut-out: 22 x 30.6 mm (0.87" x 1.20")

Description	Part-No.
On-off switch	7726-00

1: Front Panels for Sub Racks and Enclosures

1.3.2 Fan Front Panel for Horizontal Ventilation

- Aluminium 2.5 mm, clear anodised (non-conductive)
- Scope of delivery:**
 - 1 perforated fan front panel
- Front panel screws see below



1.3.2 Fan Front Panel for Horizontal Ventilation

Height	Width	Air passage		Part-No.
		mm ²	sq. in.	
3 U	8 HP	3195	4.95	21N308-01
	12 HP	4793	7.42	21N312-01
4 U	8 HP	4260	6.60	21N408-01
	12 HP	6390	9.90	21N412-01
	16 HP	8520	13.20	21N416-01
6 U	8 HP	6390	9.90	21N608-01
	12 HP	9586	14.85	21N612-01

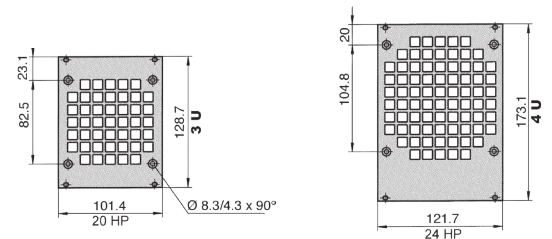
1.3.2.1 Front Panel Screws

- Set of 10 screws
- With screw retainer
- Fan front panel width up to 8 HP = 2 screws; ≥ 12 HP = 4 screws

Description	Part-No. 10 pcs.
Torx screws M2.5 x 11.3 , size T8, with plastic screw retainer	63K159
Milled edge screws recessed M2.5 x 11.3, with plastic screw retainer	63-159

1.3.3 Fan Front Panels for Direct Fan Mounting

- Aluminium 2.5 mm, clear anodised (non-conductive)
- Scope of delivery:**
 - 1 perforated fan front panel
- Front panel screws see below
- Assembly material for fan mounting has to be ordered separately



1.3.3 Fan Front Panels for Direct Fan Mounting

Description	Height	Width	Air passage		Part-No. 10 pcs.
			mm ²	sq. in.	
Without switch opening	3 U	20 HP	4051	6.27	21N320-04
	4 U	24 HP	7022	10.88	21N424-03

1.3.3.1 Front Panel Screws

- Set of 10 screws
- With screw retainer
- Per front panel 4 screws are needed

Description	Part-No. 10 pcs.
Torx screws M2.5 x 11.3 , size T8, with plastic screw retainer	63K159
Milled edge screws recessed M2.5 x 11.3, with plastic screw retainer	63-159

1.3.3.2 Assembly Material for Fan Mounting

Description	Part-No. 10 pcs.	Part-No. 100 pcs.
Countersunk screw, recessed M4 x 10		1906-24
Hexagonal nut M4, 0.8D		1907-20
Countersunk self-tapping screw cross.recessed, 13 mm	5441-55	

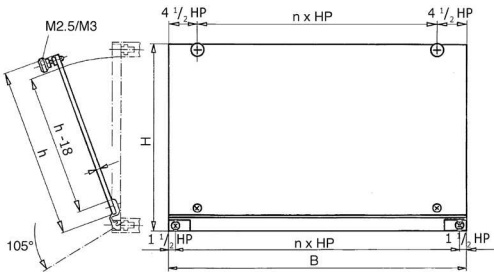
1: Front Panels for Sub Racks and Enclosures



1.4 Hinged Front Panels

1.4.1 Top / Bottom-Hinged Front Panel

- Hinges are attached to the front extrusions of the sub rack or case
- Aluminium 2.5 mm, clear anodised (non-conductive)
- **Scope of delivery:**
 - Front panel
 - Hinge extrusion
 - Assembly material M2.5, incl. hinges



1.4.1 Top/Bottom-Hinged Front Panel

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

Dimensions

HP	Nominal Width		Width B	
	mm	inch	mm	inch
63 HP	320.04	12.60	319.8	12.59
84 HP	426.72	16.80	426.5	16.79

Nominal Height U	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

1: Front Panels for Sub Racks and Enclosures

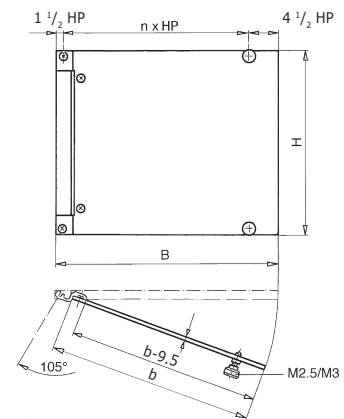
1.4.2 EMC Top / Bottom-Hinged Front Panel

- Width: 84 HP
- Offers optimum protection from electromagnetic interference
- Aluminium 2.5 mm, front anodised, rear conductive
- **Scope of delivery:**
 - EMC front panel
 - Hinge extrusions
 - Assembly material M2.5, incl. hinges
 - EMC gaskets



1.4.2 EMC Top / Bottom-Hinged Front Panel

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



1.4.3 Side-Hinged Front Panel

- Aluminium 2.5 mm, clear anodised (non-conductive)
- **Scope of delivery:**
 - Front panel
 - Hinge extrusion
 - Assembly material M2.5, incl. hinges



1.4.3 Side-Hinged Front Panel

Width	Part-No. 3 U	Part-No. 4 U	Part-No. 6 U
42 HP	25N342-29	25N442-29	25N642-29
63 HP	25N363-29	25N463-29	25N663-29
84 HP	25N384-29	25N484-29	25N684-29

Dimensions

HP	Nominal Width		Width B		Width b	
	mm	inch	mm	inch	mm	inch
42 HP	213.36	8.40	213.1	8.39	201	7.91
63 HP	320.04	12.60	319.8	12.59	307.7	12.11
84 HP	426.72	16.80	426.5	16.79	414.3	16.31

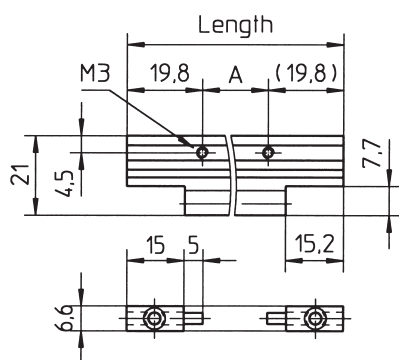
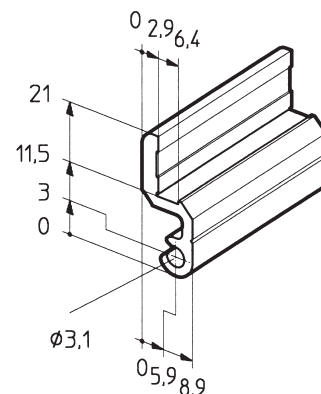
Nominal Height U	Height H	
		inch
3 U	128.7	5.06
4 U	173.15	6.81
6 U	262.05	10.31

Use ELMA's front panel service for machining and screen printing of your panels!

1: Front Panels for Sub Racks and Enclosures

1.4.4 Accessories

- To build up customised hinged front panels

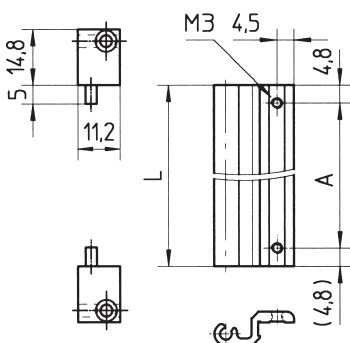


1.4.4.1 Hinge Extrusions for Top/Bottom-Hinged Front Panels

Width	A mm	A Inch	L mm	L Inch	Part-No.
42 HP	172.9	6.80	212.5	8.36	66-230-27
63 HP	279.5	11.00	319.1	12.56	66-230-28
84 HP	386.2	15.20	425.8	16.76	66-230-26

1.4.4.2 Assembly Material incl. Hinge Parts for Top/Bottom-Hinged Front-Panels

Description	Part-No.
Incl. screws, tapped strips, nuts in thread M2.5	81-124
Incl. screws, tapped strips, nuts in thread M3	81-128

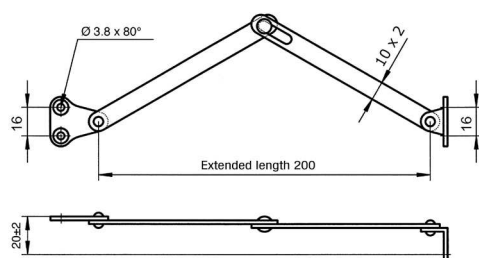


1.4.4.3 Hinge Extrusions for Side-Hinged Front Panels

Height	A mm	A inch	L mm	L inch	Part-No.
3 U	89.1	3.50	98.7	3.88	66-230-33
4 U	133.6	5.26	143.2	5.63	66-230-34
6 U	222.5	8.76	232.1	9.13	66-230-36
7 U	266.9	10.50	276.5	10.88	66-230-37

1.4.4.4 Assembly Material incl. Hinge Parts for Side-Hinged Front-Panels

Description	Part-No.
Incl. screws, tapped strips, nuts in thread M2.5	81-125
Incl. screws, tapped strips, nuts in thread M3	81-129



1.4.4.5 Panel Stay

- Scope of delivery:
 - 2 pcs. panel stay
 - Assembly material

Description	Part-No.
Set of panel stay complete	63-242



Elma Companies


Switzerland
Elma Electronic AG

Hofstrasse 93

Postfach

8620 Wetzikon

Phone +41 44 933 41 11

Fax CH +41 44 933 42 15

Fax internat. +41 44 932 38 12

sales@elma.ch


United Kingdom
Elma-Mektron Systems Limited

Unit 8, Bedford Business Centre

Mile Road

Bedford MK42 9TW

Phone +44 1234 272 677

Fax +44 1234 761 335

sales@elma-mektron.co.uk


USA
Elma Electronic Inc.

44350 Grimmer Blvd.

Fremont, CA 94538

Phone +1 510 656 3400

Fax +1 510 656 3783

sales@elma.com

Elma Electronic Inc.

9 Summer Street, Suite 303

Franklin, MA 02038

Phone +1 508 541 5770

Fax +1 508 541 5444

sales@elma.com

Elma Electronic Inc.

17700 Shideler Parkway

Lathrop, CA 95330

Germany
Elma Trenew Electronic GmbH

Stuttgarter Strasse 11

75179 Pforzheim

Phone +49 7231 97 340

Fax +49 7231 97 3497

info@elma.de


Romania
Elma Electronic Romania SRL

Str. Maltopol Nr. 16

011048 Bucharest

Phone +40 213 107 998

Phone +40 213 107 994

Fax +40 213 107 992

info@elma.ro


Israel
Elma Electronic Israel Ltd.

34 Modi'in St

I.Z. Sgula

Petach-Tikva 49271

Phone +972 3 930 5025

Fax +972 3 931 3134

sales@elma.co.il

Elma Electronic Romania SRL

Calea Buziasului Nr. 11 A

300699 Timisoara

Phone +40 256 222 290

Fax +40 256 222 490

Elma Bustronic Corp.

44350 Grimmer Blvd.

Fremont, CA 94538

Phone +1 510 490 7388

Fax +1 510 490 1853

sales@bustronic.com


France
Elma Electronic France SASU

ZA du Buisson Rond

38460 Villemoirieu

Phone +33 4 37 06 21 10

Fax +33 4 37 06 21 19

sales@elma-electronic.fr


China
Elma Electronic (China) Co. Ltd

8/F, No. 355, Fu Te Road (West 1)

Wai Gao Qiao Free Trade Zone

Pudong, 200131 Shanghai

Phone +86 21 586 65 908

Fax +86 21 586 65 918

sales@elmachina.com

Optima EPS Corp.

2166 Mountain Industrial Blvd.

Tucker, GA 30084

Phone +1 770 496 4000

Fax +1 770 496 4041

sales@optimaeps.com

Your local solution partner: