

Product description

MAIN FEATURES

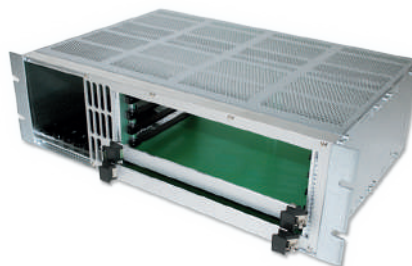
Magic- and Spirit-Kit 11 are EMC shielded subracks for IEC or IEEE applications. Both subracks impress with their simple and cost-effective structure with excellent EMC capability. Sheet steel side walls ensure extremely fast assembly and EMC protection without seals.

- › Advanced EMC shielding without gaskets (standard)
- › Internal adaption parts freely accessible
- › Quick assembly
- › Sheet steel, pre-galvanised
- › Vibration-proof
- › Dimensions and adaptations according to IEC 60297
- › Suitable for IEC 60297 (Magic-Kit 11) or IEEE 1101.10 (Spirit-Kit 11)

PRODUCT VARIETY

- › Magic-Kit 11 according to IEC 60297
- › Spirit-Kit 11 according to IEEE 1101.10
- › Numerous accessories
- › Vertical and horizontal card mounting

MAGIC-KIT 11 | SPIRIT-KIT 11



POSSIBLE CUSTOMIZATIONS

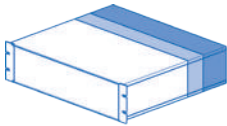
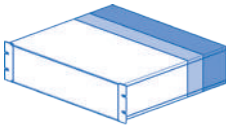
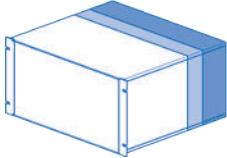
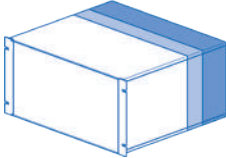
- Several depths
- 3 or 6 U
- Individual interior design

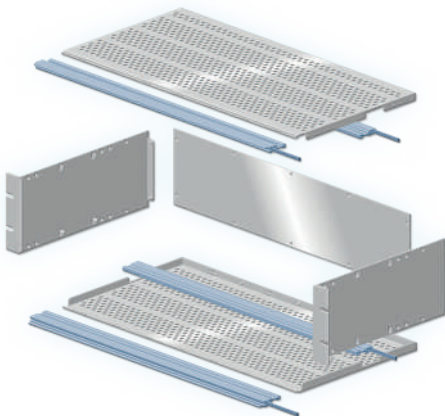
TYPICAL APPLICATIONS

- Electronics in a protected EMC environment
- Application in invisible areas (cabinet installation)
- Cost sensitive projects

Executions

SIZE

Height	Width: 84 HP	
	Magic-Kit 11	Spirit-Kit 11
3 U		
6 U		



240 mm | 9.44"

300 mm | 11.81"

390 mm | 15.35"

EXECUTIONS

MAGIC-KIT 11

Front extrusions according to IEC 60297 specifications



SPIRIT-KIT 11

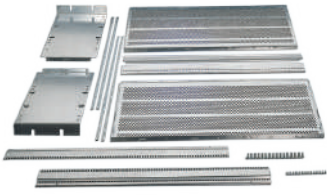
Front extrusions according to IEEE 1101.10 and CompactPCI specifications, designed for plug-in units with high forces




ASSEMBLY INSTRUCTIONS

QUICK ASSEMBLY


1. Open the package and lay out the parts.




2. Screw together the two side panels, four extrusions and four tapped strips - and the frame is ready.



3. Insert top and bottom cover, tighten four screws.



4. The EMC subrack is fully assembled without additional gaskets.



Executions

EMC PROTECTION

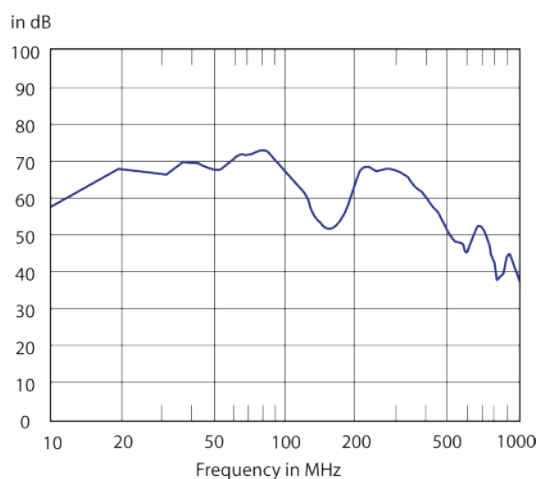
Electromagnetic compatibility is the ability of a system to operate in the intended environment without causing or suffering unacceptable degradation of performance due to unintentional electromagnetic radiation or response. The EMC characteristics of a system therefore consist of an appropriate immunity 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 subracks 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.

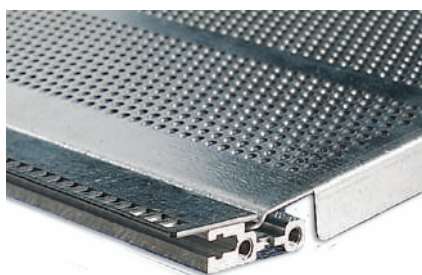
Performance level	30 - 230 MHz	230 - 1000 MHz	1000 - 2000 MHz
1 Elma Basic level	20 dB	10 dB	0 dB
2 Elma Advanced level	40 dB	30 dB	20 dB
3 Elma Superior level	60 dB	50 dB	40 dB

The standard configuration will already provide an advanced EMC level. Upon request, a superior level can be worked out in cooperation with the Elma engineering.

TYPICAL SHIELDING EFFECTIVENESS



By means of standard snap-fit and screw connections suitable for demanding applications.



Product structure

BASIC CASE

- EMC level: Advanced (standard)
- Top and bottom covers fully perforated
- Aluminium extrusions, electrically conductive
- Side plates, top and bottom covers of pre-galvanised sheet steel

Scope of delivery:

- 2 side panels
- 2 front extrusions
- 2 internal extrusions
- 4 tapped strips (6 pieces for 6 U)
- 2 insulating strips (for backplane, insulated mounting only);
- 4 pieces for 6 U
- 2 top / bottom covers, perforated
- Assembly material
- EMC gasket for front / side
- 1 double extrusion (6 U only)

Rear panel has to be ordered separately



Magic-Kit 11 (IEC 60297)

Height	Width	Backplane mounting	Depth		
			240 mm / 9.44"	300 mm / 11.81"	390 mm / 15.35"
3 U	84 HP	Insulated	11A131-6	11A132-6	11A133-6
3 U	84 HP	Conductive	on request	on request	11A133-7
6 U	84 HP	Insulated	-	11A162-6	on request
6 U	84 HP	Conductive	on request	11A162-7	11A163-7

Spirit-Kit 11 (IEEE 1101.10 and CompactPCI)

Height	Width	Backplane mounting	Depth		
			240 mm / 9.44"	300 mm / 11.81"	390 mm / 15.35"
3 U	84 HP	Insulated	11B131-6	11B132-6	on request
3 U	84 HP	Conductive	11B131-7	11B132-7	on request
6 U	84 HP	Insulated	11B161-6	on request	on request
6 U	84 HP	Conductive	on request	on request	11B163-7

Rear Panel:

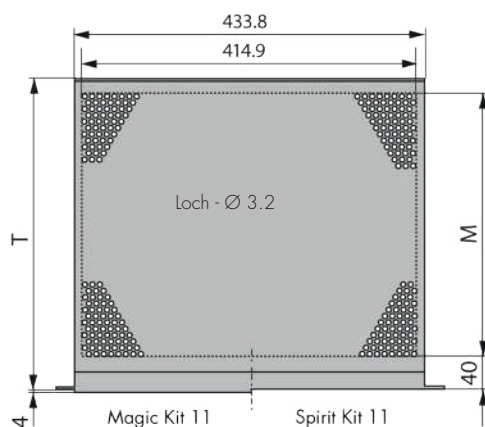
- Galvanized sheet steel
- Scope of delivery: 1 rear panel (assembly material included in case)

Height	Description	Part-No.
3 U	Rear panel	22-384
6 U	Rear panel	22-684

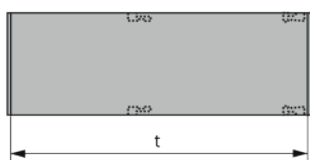
Drawings and dimensions

DIMENSION DRAWINGS

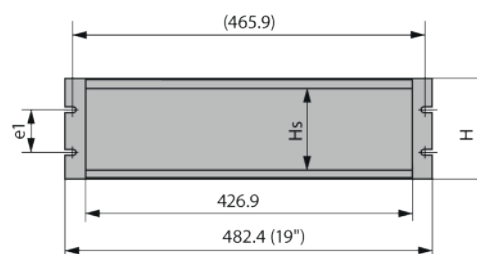
TOP VIEW



SIDE VIEW



FRONT VIEW



Height			Hs		e1	
HE	mm	inch	mm	inch	mm	inch
3 HE	132.5	5.21	112.5	4.42	57.2	2.25
6 HE	265.85	10.46	245.85	9.67	190.55	7.5

Depth T		t	
mm	inch	mm	inch
240	9.44	232.6	9.15
300	11.81	292.6	11.51
390	15.35	382.6	15.06

Air flow

Depth		M		Air flow	
mm	inch	mm	inch	mm ²	sq. inch
240	9.44	186.8	7.35	28953	44.87
300	11.81	244	9.6	37638	58.33
390	15.35	333.2	13.11	52115	80.77

Adaptation Kit

ADAPTION KIT FOR RECESSED CARD INSTALLATION

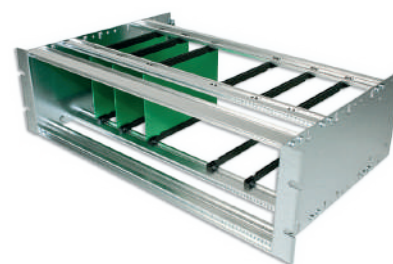
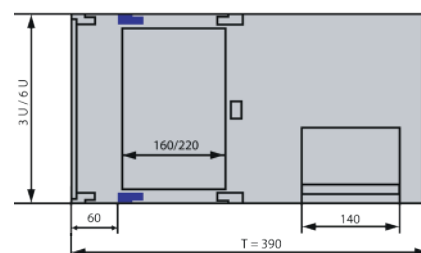
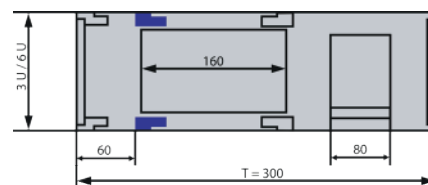
Range of application:

- Recessed mounting of single / double eurocards
depth 160 to 220 mm
- Without individual front panels

Scope of delivery:

- 2 internal extrusions
- 2 tapped strips
- 1 set assembly material

Description	Part-No.
Recessed mounting of single / double eurocards without front panels	11-530



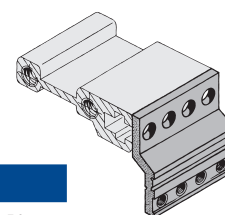
EDGE CONNECTOR EXTRUSION 66-147

- For use with extrusions for backplanes 66-193

Scope of delivery:

- 1 aluminium extrusion, clear passivated (conductive)

Description	8 HP	18 HP	28 HP	42 HP	63 HP	84 HP
For edge connector, IEC 60603-2	66-147-XX	66-145-41	66-145-42	66-145-63	66-145-65	66-145-52



Assembly material

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

Assembly Accessories

FRONT SUB DIVISION VERTICAL FOR 3 U | 6 U

- Allows both single and double eurocards to be mounted together in a 6 U Magic- and Spirit-Kit 11

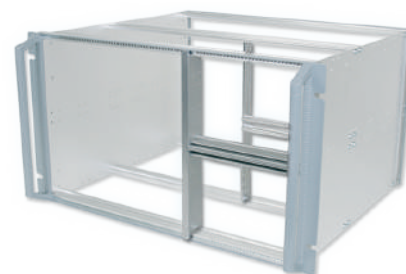
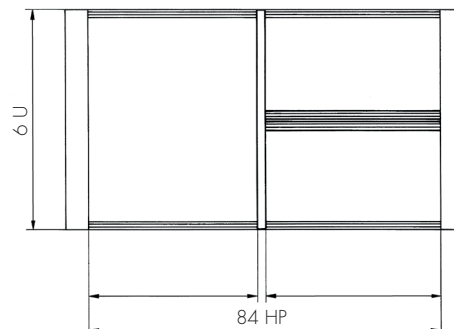
Scope of delivery:

- 1 divider extrusion front
- 1 divider extrusion rear
- 2 front extrusions
- 2 internal extrusions
- 1 assembly material

Nominal width		Part-No.
6 U (c)	2 x 3 U (a)	IEC 60297
50 HP	32 HP	11-959-2

Tapped strips for front extrusion

Scope of delivery	Description	Part-No.
1 piece tapped strip	M2.5 32 TE = 162.56 mm	63-214



HORIZONTAL CARD MOUNTING KIT FOR DOUBLE EUROCARDS | 6 HE

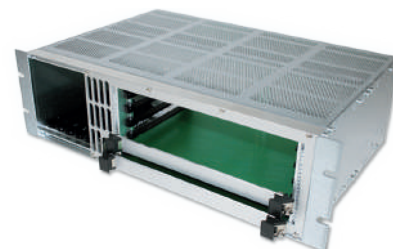
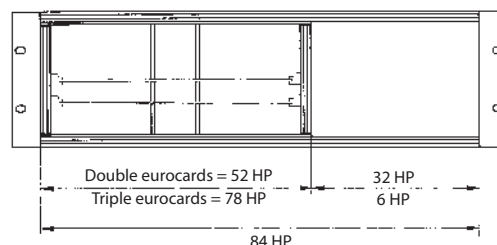
- For double eurocards (6 U)
- Independent of card depth

Scope of delivery:

- 4 distance plates (2 front / 2 rear)
- 4 length extrusions (2 front / 2 rear)
- 1 centre extrusion
- 6 tapped strips M2.5
- 1 set assembly material
- Top and bottom cover plate, when no overall fan front panel is used (have to be ordered separately)

Mounting height	Usable height	IEC 60603-2	Backplane	Cover plate top*	Cover plate bottom*
3 HE	20 TE	14-971-30	14-971-60	21N602-90	21N602-90

* Assembly material for cover plate see below



Front panel screws:

- For cover panel
- Delivery scope: Set of 10 screws (incl. screw retainer)

Description	Part-No.
Torx scre T8 (M2.5 x 11.3) with plastic screw retainer	63K159
Rounded head screw recessed M2.5 x 11.3 with plastic screw retainer	63-159

Assembly Accessories

MOUNTING CHASSIS

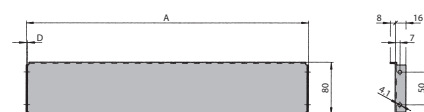
- For mounting non-standard modules and components
- Mounting chassis is fixed directly to the side panel

Scope of delivery:

- 1 mounting chassis
- 1 set of assembly material (4 earthing nuts, 4 screws M4 x 6)

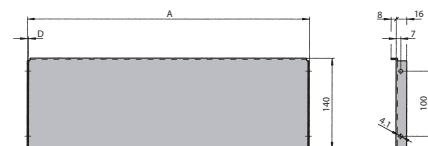
Mounting chassis depth 80 mm:

Frame width	A		D		Part-No.
	mm	inch	mm	inch	
84 TE	431.5	16.98	2	0.08	14-832-50



Mounting chassis depth 140 mm:

Frame width	A		D		Part-No.
	mm	inch	mm	inch	
84 TE	431.5	16.98	2	0.08	14-836-50



EMC CONTACT STRIPS (ADVANCED EMC LEVEL)

- Fixing on extrusion (for front panels)
- Self-adhesive

Scope of delivery:

- 2 contact strips

Width	Length	Part-No.
84 TE	424.2 mm	63-836-70

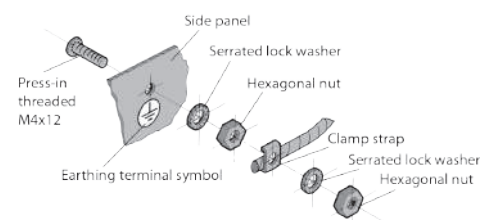


EARTHING SET

- Enables enclosures to be earthed in conformance with EN / VDE / SEV

Scope of delivery:

- 1 press-in threaded bolt M4
- 2 serrated lock washers
- 2 nuts M4
- 1 clamp
- 1 protective conductor symbol



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