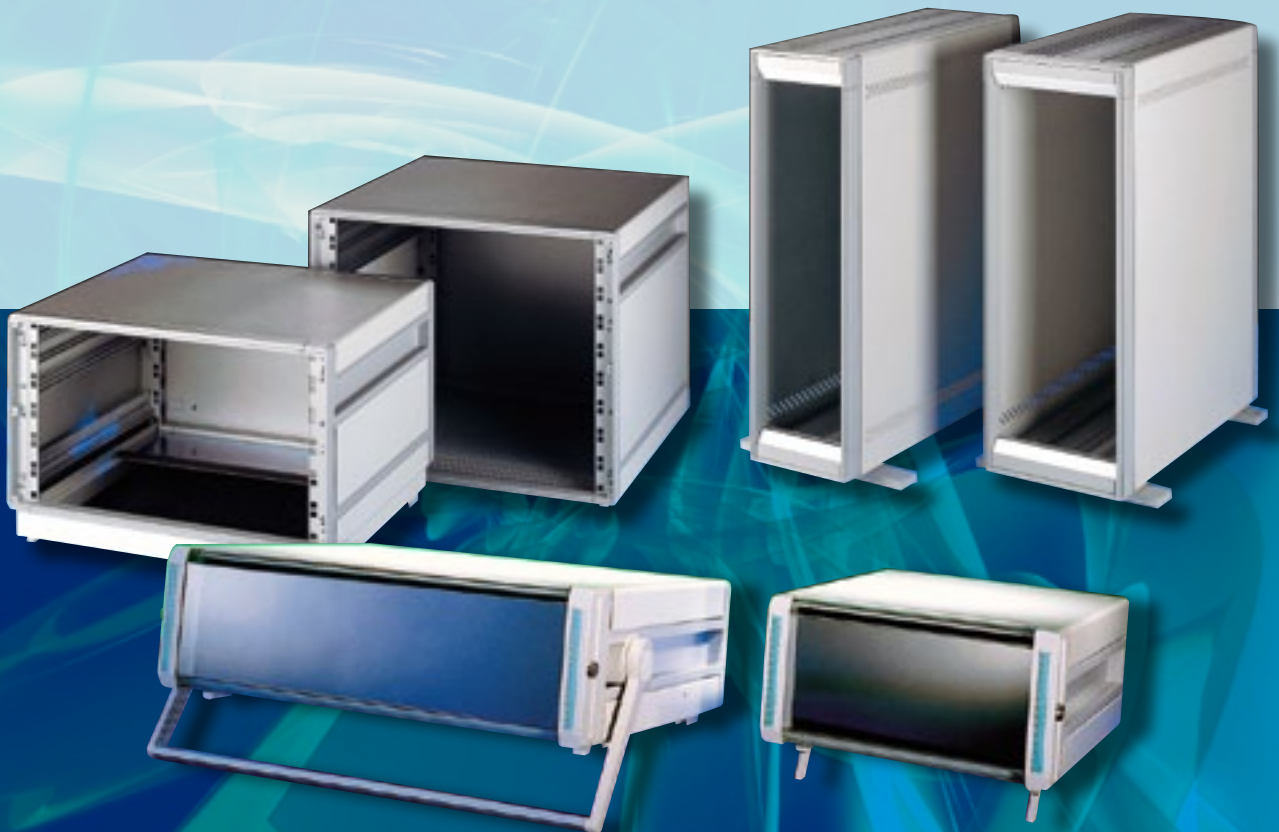
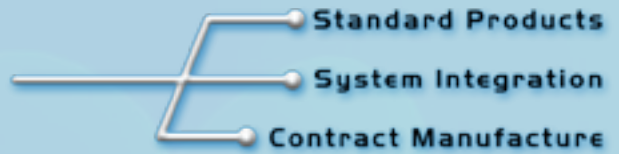


VEROTEC

Electronics Packaging



**Diplomat Cases
& Caseframes**

Our manufacturing facilities have long been at the forefront of technological development, and their commitment to the providing of the most fit-for-purpose products is demonstrated by the fact that we currently manufacture some of the most advanced packaging systems and enclosures available. All Verotec facilities are fully equipped with the latest electronic design and manufacturing systems, enabling customers to access a "virtual" factory for the procurement of product.

We have long experience in the design, manufacture and supply of subracks and enclosures in both standard and custom forms and, as a result, we have expertise in solving a wide range of problems encountered by the electronics industry when housing or 'packaging' components and systems. This publication reflects both that experience and expertise.

Verotec is dedicated to being a world-class provider of a comprehensive range of standard and custom product, borne from the integrated design, manufacturing and service capabilities, enabling it to provide OEMs with rapid deliveries at competitive prices. We believe that every customer is a priority, and contact is maintained by means of our own dedicated sales forces and via our technical sales and marketing specialists, who are able to draw upon global resource.

METAL ENCLOSURES

Verotec's DIPLOMAT metal enclosure range is recognised worldwide as one of the leading products in its field having evolved around a number of international standards and in response to a number of trends. These cases are strong, yet lightweight and provide an inherent level of EMC protection due to their overall metal construction. Available as cases, caseframes, or computer towers, DIPLOMAT provides a tough, yet aesthetically pleasing packaging solution which is equally effective in workshop, laboratory or office environments.

THE DIPLOMAT PRINCIPLE

Why would you choose to use a DIPLOMAT enclosure ?

In a word, accuracy. The need to provide a precise framework in which subracks are supported and protected is most efficiently achieved using accurate die-casting technology and hard-tooled cover designs. The function of an enclosure now extends far beyond the pure packaging role and covers such areas as RFI protection.

RFI PROTECTION

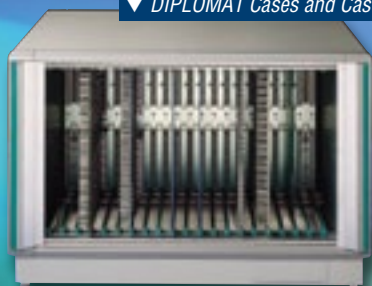
Using tests based on, and adapted from, MIL-STD 285 DIPLOMAT is proven to achieve an impressive level of EMC protection as standard. For users requiring a greater measure of EMC protection DIPLOMAT caseframes can be converted into fully RFI shielded units by means of optional conversion kits

VERSATILITY

A wide range of optional features and accessories ensure that the DIPLOMAT range meets and fulfils many requirements, from simple desktop instrument enclosures to mobile computer housings.

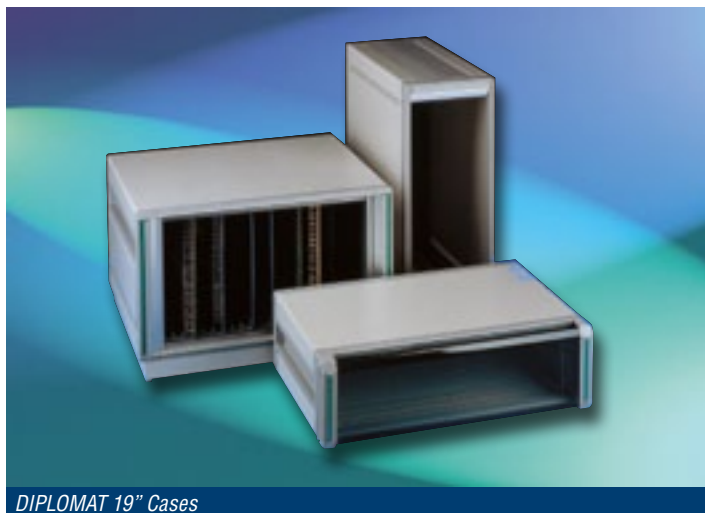
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▼ DIPLOMAT Cases and Caseframes



DIPLOMAT 19" AND 10½" CASES

DIPLOMAT 19" and 10½" cases are designed for the direct mounting of sub racks and chassis to IEC 297-1 and DIN 41494. They are strong and lightweight, with inherent EMC protection due to their metal construction. They have also obtained an IP rating of 30. A new fan plinth design has improved the cooling performance of this unit significantly, results of which are published on page 4 of this brochure. A very large range of ex-stock sizes are available and can now be assembled to order and despatched with accessories fitted. Due to the nature of its construction, this unit is also easily customised, so please ask our Sales Office for more details.



DIPLOMAT 19" Cases

DIPLOMAT-RF 19" AND 10½" CASES

DIPLOMAT-RF 19" and 10½" cases are designed to suit applications requiring a higher level of EMC protection to shield sensitive electronic equipment.

The significantly higher level of protection is achieved by selectively placing BeCu fingers around joints in the enclosure to attain the level of EMC protection required. Because the fingers can be added or removed easily, the level of shielding may be altered to find the most cost-effective solution.



DIPLOMAT-RF 19" Cases

DIPLOMAT COMPUTER TOWERS

DIPLOMAT Computer Towers are designed for direct mounting of sub racks or chassis and conform to IEC 297-1 and DIN 41494. The towers are available in two widths and can accept up to 12U of sub racks or chassis. All units are supplied assembled.



DIPLOMAT Computer Tower

DIPLOMAT CASEFRAMES – EUROCARD COMPATIBLE

DIPLOMAT caseframes are designed for the direct mounting of circuit boards and modules to IEC 297-3, DIN 41494 Pt. 5 and BS 5954. They are available with EMC conversion kits which give high levels of attenuation. The basic unit however will also afford EMC protection due to its metal construction.

The cooling performance of this unit has also been improved, especially in the slot 1 region of VME systems, where hot cards are often situated. These units are supported by a range of accessories which increase its versatility and application environment. These units are also rated at IP30.



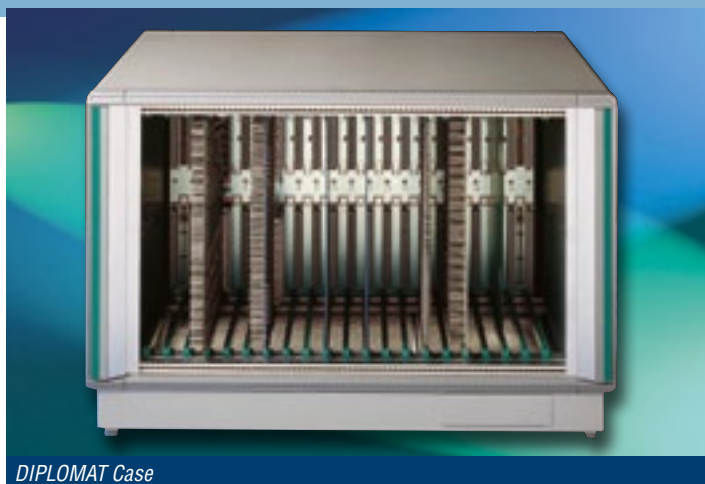
DIPLOMAT Caseframes

NEW AND IMPROVED COOLING PERFORMANCE

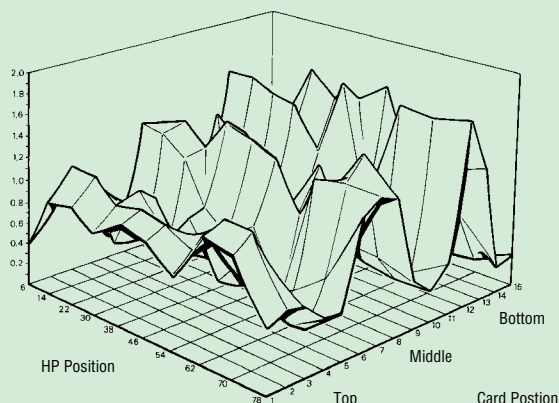
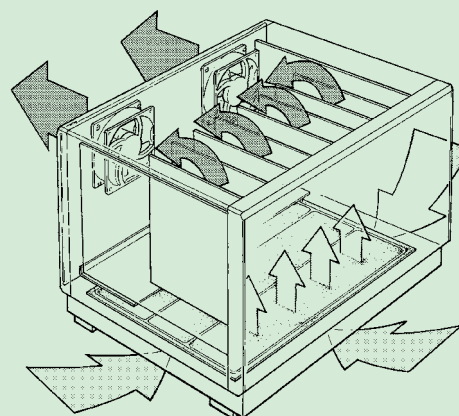
The DIPLOMAT range of enclosures has improved cooling performance in both the standard and fan plinth versions. The fan plinth version has a wider plinth with an increased ventilation surface area to increase the volume of air flow. The plinth can either act as a chamber for air collection when fans are mounted on the rear panel of the unit (pull through air flow) or can be used to mount fans directly hence employing a push method of cooling. Fans can be mounted in the plinth and on the rear panel employing a push-pull method of cooling.

Ducting plates can be placed in the plinth to give additional direction to the air flow, concentrating the flow towards hot cards or components. The level of cooling performance achieved will depend on a number of variables, such as the internal component architecture and hot component positioning. A test was set up where a 6U DIPLOMAT unit 19" wide was fitted with a populated card frame, 220mm boards to a 6U full width backplane, and air flow indicating componentry. Two 95CFM fans were mounted on the rear panel and a standard ducting plate used to direct the air across the cards, the results recorded are shown below.

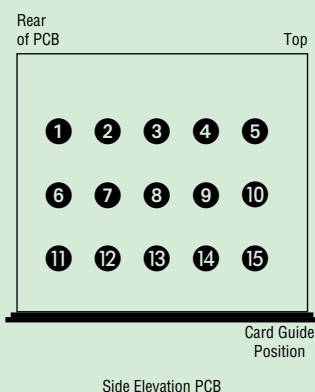
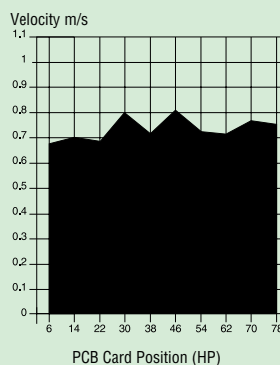
The results below were measurements of air velocity taken from the standard DIPLOMAT with new 38mm deep plinth with ducting plate, and 2 x 95 CFM fans mounted on the rear panel. The top panel was non ventilated.



DIPLOMAT Case



2 x 95CFM Rear Panel (New Style Plinth)



DIPLOMAT SHIELDING EFFECTIVENESS RESULTS

The shielding effectiveness results shown have been measured in Verotec's EMC test facility using a generic test procedure adapted for smaller enclosures.

Isolated from ambient electromagnetic interference within a screened room, magnetic and electric field signals are radiated at discrete frequencies inside the enclosure under test. Field strengths at positions around the enclosure are compared with equivalent control measurements to determine the signal attenuation by the enclosure at each frequency.

Shielding effectiveness may vary around the enclosure.

EMC PROTECTION

The graph shows typical attenuation figures achieved for a 3U 19" DIPLOMAT case, which has been fitted with standard front and rear panels. The performance achieved shows that in both the E and the H field the unit will provide fairly high levels of attenuation across a broad frequency band.

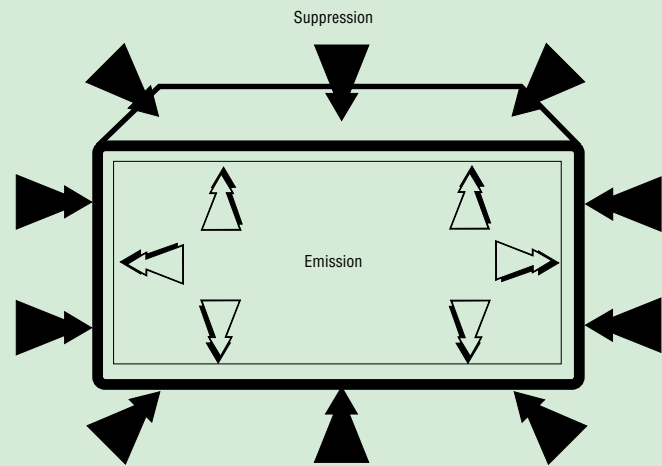
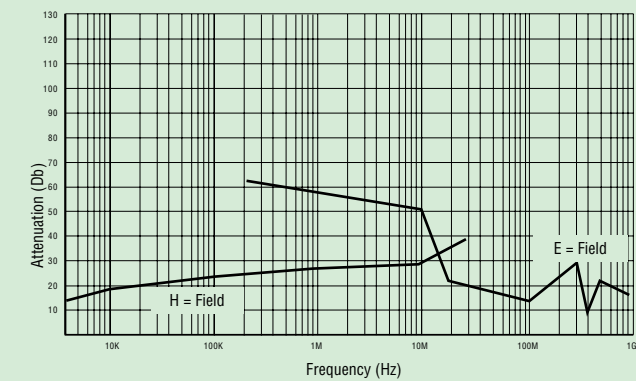
The DIPLOMAT range of enclosures have undergone a series of technical performance tests, conducted in accordance with MIL-STD 285, modified where necessary due to the nature of the enclosure. The results shown are worst case and units were not fitted with any additional metalwork. The performance of the units may be improved when internal chassis and EMC front panels are included.

IP PROTECTION

The DIPLOMAT range was also tested for the ingress of dust using standard BSI probes. The unit passed a test which gives an IP rating of 30. The unit was not tested for the ingress of water.

IP	3	0
INDEX OF PROTECTION	DUST PROTECTION	WATER PROTECTION
3	Protection against small foreign bodies	Protection of persons from touching active or internal moving parts with tools, or similar, thicker than 2,5mm. Protection of the object from access of solid foreign matter larger than 2,5mm in diameter.
0	No protection	No special protection

SHIELDING EFFECTIVENESS FOR 3U x 422 DIPLOMAT 19" CASE



DIPLOMAT Cases: Overview and accessories index

A superb range of robust cases for direct mounting of 42HP or 84HP subracks and 10½" or 19" chassis to IEC 297-1 and DIN 41494.

Features

- Supplied assembled
- Superb modern styling
- Robust metal construction
- Conforms to IEC 297-1 and DIN 41494
- Quick release top and bottom covers
- Horizontal, vertical tower and plinth versions available.
- Front trims conceal 19" fixings
- Very large range of standard ex-stock sizes
- Easy customisation
- Painted in modern colour combination of light and mid grey to BS4800-00A01 and BS4800-00A05

APPLICATIONS

The DIPLOMAT 19" and 10½" cases are designed to provide stylish, robust, yet economical solutions for housing electronic systems.

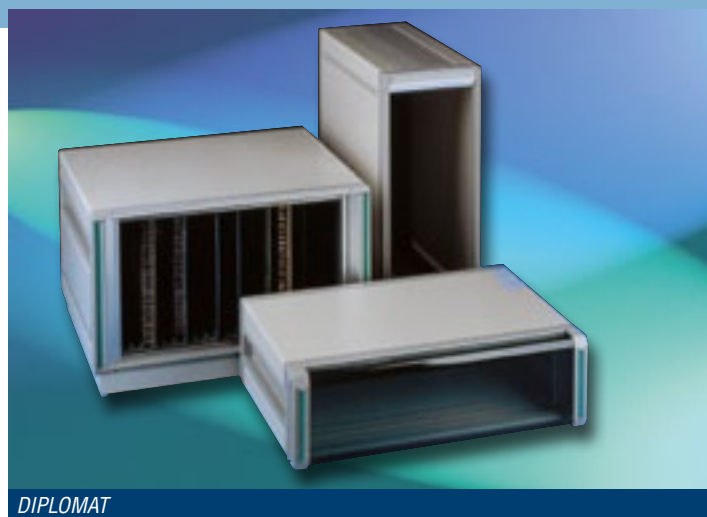
The standard cases are ideal for 10½" or 19" (42HP or 84HP) equipment used in either office or industrial applications. Vertical tower versions are designed as floor standing units suitable for convenient positioning either under or next to a desk.

Items to be ordered as accessories

Description	Page
Transparent doors	10
Heavy duty carry handles	10
Feature front panels	11
19" and 10½" front panels	11
Front bezel trims	11
Rear panels	12
Fan accessories	12
Cable tidy	12
Bump down foot	13
Rear bezel trims	13
Earth continuity kit	14
Chassis supports	14
Chassis trays	14

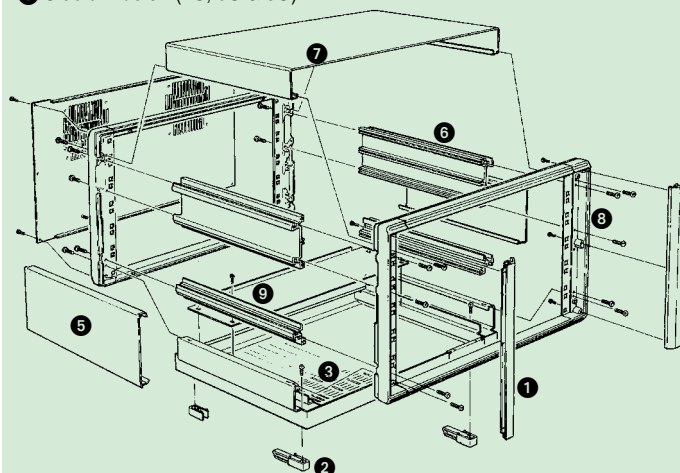
WOULD YOU LIKE THEM ADDED TO THE BASIC UNIT?

We can add your accessories to the DIPLOMAT case and despatch as one unit. Please refer to the DIPLOMAT Case Configurator on page 15 or contact our Sales Office for details.

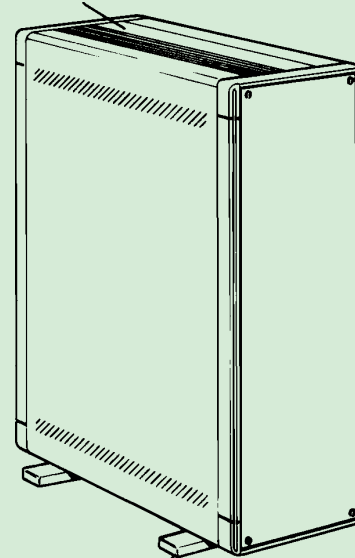


DIPLOMAT

- 1 Front trims (order as accessories)
- 2 Tilt up feet
- 3 Ventilation plinth
- 5 Side infill panel
- 6 Side handle extrusion
- 7 Top cover
- 8 Front/rear bezel assemblies
- 9 Side extrusion (4U, 6U & 9U)



Recess trim



Foot assembly

DIPLOMAT Cases 3U and 4U horizontal versions

HORIZONTAL CASES WITH OR WITHOUT PLINTH

The standard horizontal DIPLOMAT cases are available in four heights, two widths and four depths, and are supplied ready assembled.

Contents of kit

Description	Qty	Material/Finish
Top cover	1	0.9mm Zintec coated steel
Bottom cover (or plinth)	1	0.9mm Zintec coated steel
Handle extrusion	2	Aluminium alloy extrusion
Side extrusions (4U only)	4	Aluminium alloy extrusion
Bezels	2	Aluminium alloy castings
Feet (2 tilting)	4	ABS plastic
Finish		Textured electrostatic epoxy paint
Colour: Top/bottom covers, plinths		Light grey BS4800-00A01
Front and rear bezels, side handles and 4U side extrusions		Mid grey BS4800-00A05

Order separately

Description	Page
Transparent doors and heavy duty carry handle	10
Front panels and front bezel trims	11
Rear panels, cable tidy and fan accessories	12
Rear bump down feet and rear bezel trims	13
Earth continuity kits, chassis supports and chassis trays	14

STANDARD 19" CASES – Supplied assembled

Ordering information

Height (mm)	Width	Ext depth	Max int depth	Dimensions			Order code
				A	B	C	
3U (161,85)	19"	322	277	450	134,85	17	760-236562
		422	377	450	134,85	17	760-236563
		522	477	450	134,85	17	760-236564
4U (206,30)	19"	322	277	450	179,30	17	760-236565
		422	377	450	179,30	17	760-236566
		522	477	450	179,30	17	760-236567

19" VENTILATION PLINTH DIPLOMATS – Supplied assembled

(with air filtration built in as standard)

Ordering information

Height (mm)	Width	Ext depth	Max int depth	Dimensions					Order code
				A	B	C	D	E	
3U (161,85)	19"	322	277	450	134,85	39,5	506,4	287	760-236579
		422	377	450	134,85	39,5	506,4	387	760-236580
		522	477	450	134,85	39,5	506,4	487	760-236581
4U (206,30)	19"	322	277	450	179,30	39,5	506,4	287	760-236582
		422	377	450	179,30	39,5	506,4	387	760-236583
		522	477	450	179,30	39,5	506,4	487	760-236584

10½" HALF WIDTH CASES

Ordering information

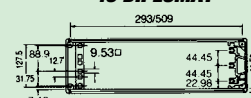
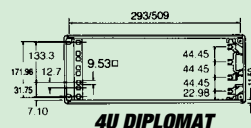
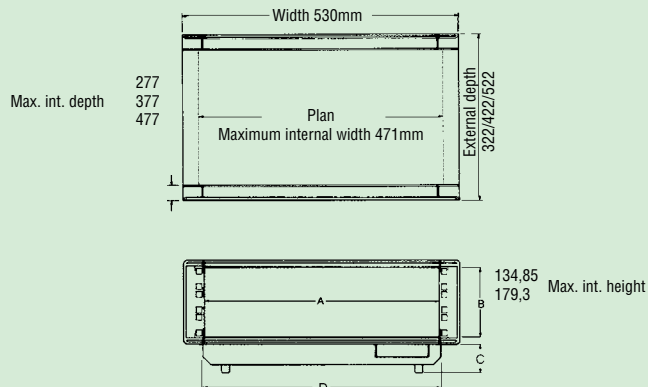
Height (mm)	Width	Ext depth	Max int depth	Dimensions			Order code
				A	B	C	
3U (161,85)	10,5"	322	277	234	134,85	17	760-236575
		422	377	234	134,85	17	760-236576
4U (206,30)	10,5"	322	277	234	179,30	17	760-236577
		422	377	234	179,30	17	760-236578



DIPLOMAT 19" Cases 3U and 4U horizontal versions

3U and 4U Horizontal Versions

Ventilation plinth and gland plates

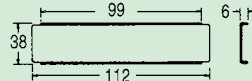


3U DIPLOMAT

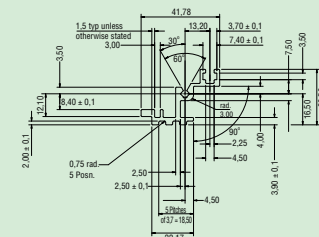
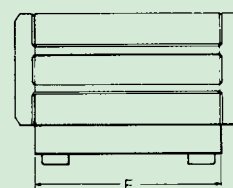
4U Side Extrusion

Gland Plates

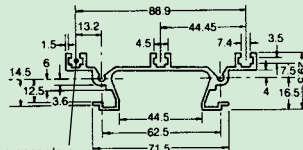
Plinth version only



Ventilation Plinth

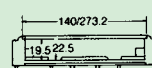


Handle Extrusion



Note: Groove accepts a STD M4 size nut.

Bezel Section



TRANSPARENT DOORS

Manufactured from strong yet lightweight materials this new transparent door design offers not only security but styling to the DIPLOMAT 19" enclosure.

All doors are lockable and allow sufficient space inside to mount components on front panels without causing interference. All doors are supplied with an integral colour highlight strip.

Flammability rating - BS476 class 3/UL94-HB

Contents of kit

Description	Qty.	Material/Finish
Door assembly	1	3mm Acrylic panel (tint 901) with mid grey ABS corner mouldings (BS4800-00A05)
Highlight trim	2	PVC, colour Lincoln Green
Lock trim	1	Aluminium extrusion, satin anodised
Plain trim	1	Aluminium extrusion, satin anodised
Set of keys	1	
Set of fixings	1	

Ordering information

Height	Width	Description	Order code
3U	10½"	Horizontal hinge	760-236832
4U	10½"	Horizontal hinge	760-236833
		Horizontal hinge	760-236827
3U	19"	Vertical hinge	760-240994
		Horizontal hinge	760-236828
4U	19"	Vertical hinge	760-240995
6U	19"	Vertical hinge	760-236829
9U	19"	Vertical hinge	760-236831

HEAVY DUTY CARRY HANDLE – 3U AND 4U CASES ONLY

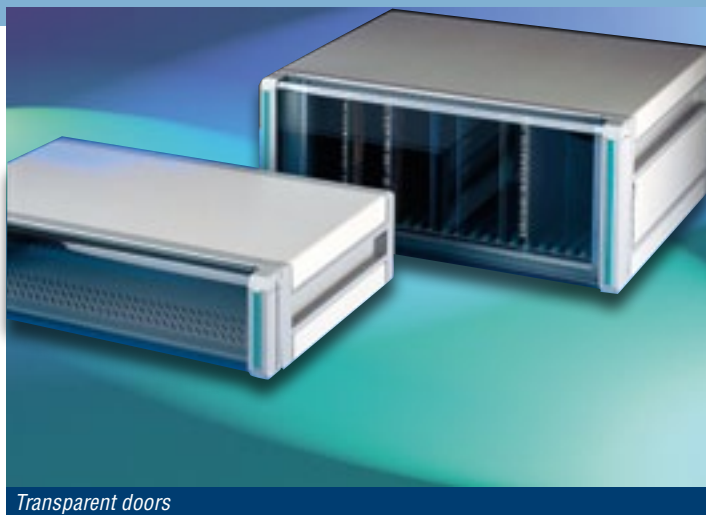
This heavy duty handle is designed to visually coordinate with the DIPLOMAT cases. It is suitable for 3U and 4U cases and will accept loads of up to 300N. The handle has a press button mechanism which locks in increments of 30°. This allows the cases to be easily carried or tilted on a work surface. A template is supplied with the kit for easy drilling and to assist location in the side extrusions.

Contents of kit

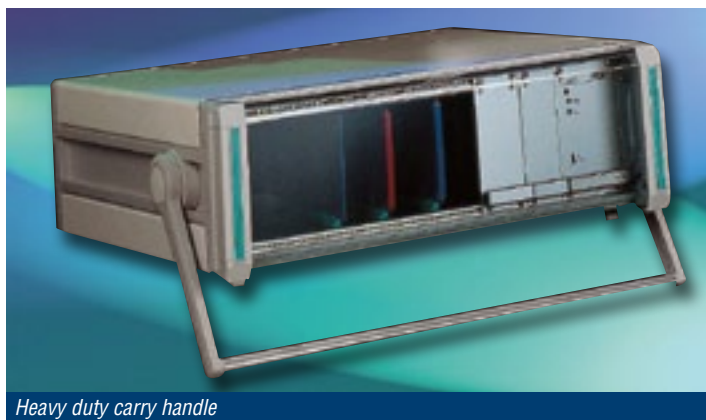
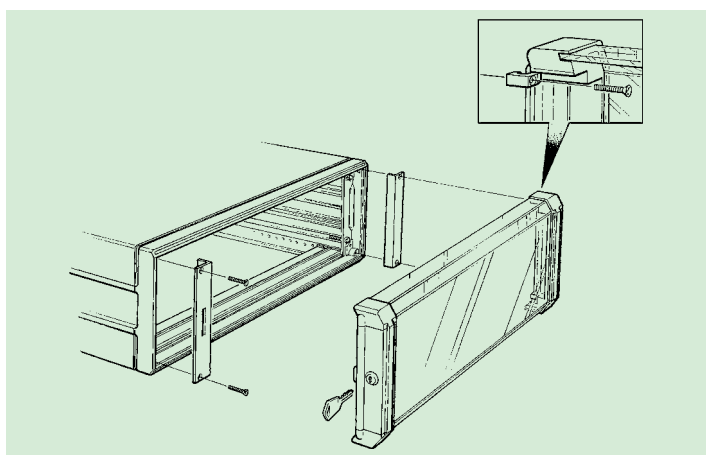
Description	Qty.	Material/finish
Side arms and location mouldings	2	Polycarbonate, mid grey
Cross bar	1	Alu. alloy etch and clear anodise
Fixing screws		

Ordering information

Description		Order code
Case Carry Handle	10½"	60-202675
	19"	60-202673



Transparent doors



Heavy duty carry handle

FEATURE FRONT PANELS

Available in addition to the range of standard 19" front panels, these are unique to the DIPLOMAT case. Manufactured in 3mm etched and anodised aluminium with a high quality surface finish they provide a clean and very attractive frontal appearance. They may be used both on the front and rear of the case and are fitted into the bezel in place of the trims, and in front of the 19" fixing facilities.

Ordering information

Case Size		Panel dimensions		Order code
Height	Width	Height	Width	
3U	10½"	138,5	304	60-39272
	19"	138,5	520	60-39268
4U	10½"	183	304	60-39273
	19"	183	520	60-39269
6U	19"	272	520	60-39270

10½" AND 19" FRONT PANELS

Standard 19" (IEC 297-1, DIN 41494 pt1) front panels are available in satin anodised aluminium of 3mm thickness.

Ordering information

Height	Width		Order code
1U	19"	(482mm)	50-0767
2U	10½"	(266,7mm)	50-0763
	19"	(482mm)	50-0768
3U	10½"	(266,7mm)	50-0764
	19"	(482mm)	50-0769
4U	10½"	(266,7mm)	50-0765
	19"	(482mm)	50-0770
6U	19"	(482mm)	50-0772
9U	19"	(482mm)	50-24284

FRONT BEZEL TRIMS

These provide an attractive finish to the DIPLOMAT cases when the equipment has been installed. They are available in two versions; two-part highlighted and two-part plain.

The highlighted versions are mounted from the front of the unit for easy access and supplied with the standard highlight colour (Pantone green).

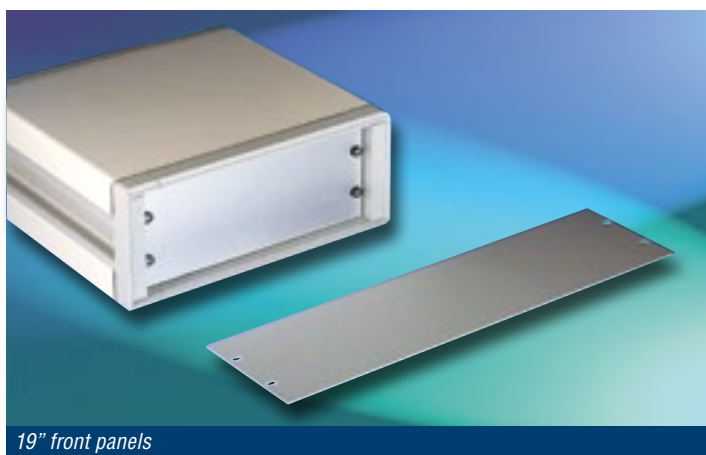
The plain version is mounted from the rear of the bezel, providing a clean fronted appearance and offering additional security.

Ordering information

Height	Description	Order code
3U	Plain two part	760-236865
	Colour two part	760-238510
4U	Plain two part	760-236866
	Colour two part	760-238511
6U	Plain two part	760-236867
	Colour two part	760-238512
9U	Plain two part	760-236868
	Colour two part	760-238513



Feature front panels



19" front panels



Front bezel trims

10½" AND 19" REAR PANELS

These steel rear panels are available in two versions – standard ventilated or fan ventilated – and two widths to suit 10½" and 19" DIPLOMAT Cases. The top and bottom covers of the enclosure can be quickly removed without the need to remove any panels. This is achieved by the provision of holes in the rear panel to permit easy access to the cover securing screws.

The standard ventilated versions are supplied pre-punched with obround holes across the full width of the rear panel, providing a safe passage of air through the case.

The fan ventilated versions are supplied with pre-punched vent areas with the relevant fixing holes to mount 120mm square fans. These panels are particularly suited to applications requiring forced cooling to aid air throughput.

CONTENTS OF KIT

Description	Qty.	Material/finish
Rear panel	1	0,9mm steel, painted mid gray BS4800-00A05
Hole plugs	4	Natural nylon
Fixing screws		

ORDERING INFORMATION

Description: Standard ventilated panels

Height	Width	Order code
3U	10½"	760-236628
	19"	760-236623
4U	10½"	760-236629
	19"	760-236624
6U	19"	760-236625
9U	19"	760-236627

Description: Fan ventilated panels

Height	Width	Fan positions	Order code
3U	10½"	1	760-236876
	19"	1	760-236872
4U	10½"	1	760-236877
	19"	2	760-236873
6U	19"	2	760-236874
9U	19"	3	760-236875

FAN PANEL ACCESSORIES – 10½" AND 19" CASE COMPATIBLE

ORDERING INFORMATION

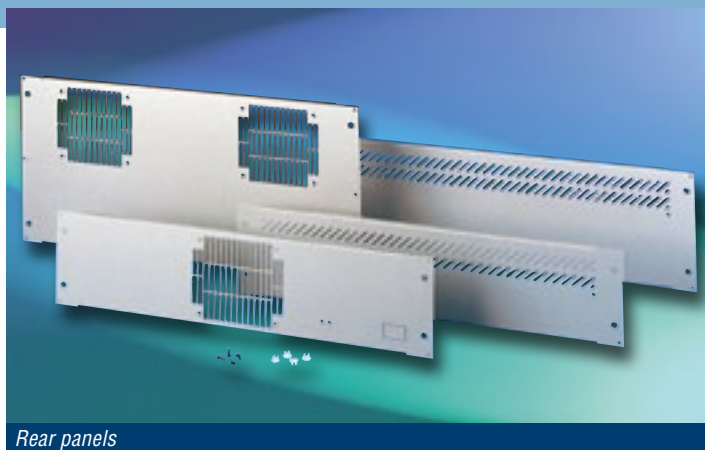
Description	Order code
120mm 220V AC 50Hz fan	28-238116
80mm 220V AC 50Hz fan	28-42355
120mm Finger guard	28-202490
80mm Finger guard	28-42366
Fan fixing kit	28-43872
Fan connection lead	28-241569

REAR CABLE TIDY – 10½" AND 19" CASE COMPATIBLE

The rear cable tidy allows power cables to be conveniently and tidily stored. It is supplied as a kit of two mouldings which are attached directly to the pre-punched rear panels (both types).

ORDERING INFORMATION

Description	Order code
Rear cable tidy kit	517-203357



Rear panels



Fan panel accessories



Rear cable tidy

REAR BUMP DOWN FEET – 3U CASES ONLY

This useful bump down foot accessory allows portable instruments to be placed safely on rugged surfaces without causing damage to the unit itself. The foot assembly also acts as a cable wrap to conveniently store power cables. Access to the DIPLOMAT interior can be gained via securing screws in the foot moulding, which when unscrewed, will release the top and base covers. These are suitable for 3U units only.

CONTENTS OF KIT

Description	Qty.	Material/Finish
Set of mouldings	2 pairs	Polycarbonate, mid grey BS4800-00A05
Support brackets	2	2mm steel, mid grey BS4800-00A05
Rubber inserts	4	Rubber, black
Fixing screws	4	

ORDERING INFORMATION

Description	Order code
Bump down feet	760-238388



Rear bump down feet

REAR BEZEL TRIMS – 10½" AND 19" CASE COMPATIBLE

These can be used to hide the case fixing screws when the DIPLOMAT rear panel is not used.

Similar in design to the front trims, but attached from the outside, they allow easy access without having to remove the covers.

These trims may also be used as an alternative to the front trims where access is required. Supplied as a pair of trims.

Contents of kit

Description	Qty.	Material/Finish
Rear bezel trims	1 pair	Aluminium alloy extrusion mid grey BS4800-00A05
Fixing screws		

Ordering information

Case height	Order code
3U	60-54745
4U	60-54746
6U	60-54747



Rear bezel trims

EARTH CONTINUITY KIT – 10½" OR 19" CASE COMPATIBLE

The earth continuity kit provides all the cables and fixings required to give complete earth continuity throughout the case. This single kit is suitable for all sizes of DIPLOMAT.

CONTENTS OF KIT

Description	Qty
Earthing leads	5
Bolt-on spade connector	5
Earth bonding screw	5
M4 Pan head screw x 6LG DIN	5
M4 Hex nut (thin)	10
Instructions leaflet	1

ORDERING INFORMATION

Description	Order code
DIPLOMAT earth continuity kit	60-54598

CHASSIS SUPPORT KIT – 10½" OR 19" CASE COMPATIBLE

Chassis supports are available to provide additional support for 19" chassis or cardframes within the enclosures. These are assembled to the T slots in the side extrusions. Each kit comprises two runners and all necessary fixings.

CONTENTS OF KIT

Description	Qty.	Material/finish
Chassis supports	2	1,2mm steel clear zinc plated
Fixing screws		

ORDERING INFORMATION

Description: Chassis support						
Case Size		Dimensions			Order code	
Width	Depth	A	B	Depth		
	322	467	451	256		60-43796
19" or 10½"	422	467	451	356		60-43797
	522	467	451	456		60-43798

CHASSIS TRAY KIT – 19" CASES ONLY

A range of chassis trays are available which, when attached to the chassis support, provide a complete chassis assembly for mounting processor boards or other components.

A matrix of slots is provided in each tray so that it does not restrict airflow within the unit. This is especially important when used in a DIPLOMAT case with a ventilation plinth.

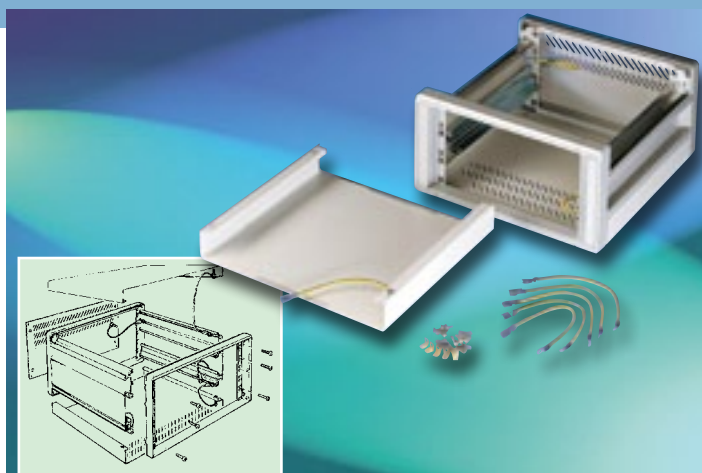
CONTENTS OF KIT

Description	Qty.	Material/finish
Chassis tray	1	1,2mm steel clear zinc plated
Fixing screws		

ORDERING INFORMATION

Description: Chassis tray							
Case Size			Dimensions				Order code
Width	Depth	Available int. width	C	D	E	F	
	322	448	5	67	21	18	60-43802
19"	422	448	5	67	30	21	60-43803
	522	448	5	67	40	18	60-43804

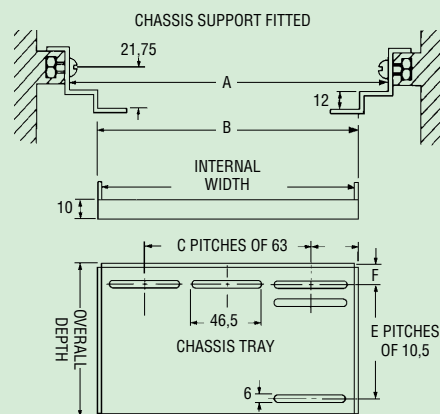
Note: Chassis supports must be ordered when fitting a chassis tray. Each kit includes a chassis tray and all necessary fixings.



Earth continuity kit



Chassis tray kit



761-

ACCESSORIES – 1ST DIGIT

19" Case with earthing kit fitted	
19" Case without earthing kit fitted	

ACCESSORIES – 2ND DIGIT (FRONT FEATURES)

Transparent Door H/H	Transparent Door V/H	Plain Bezel Trim	Colour Bezel Trim	Front Panel	
–	–	–	–	–	0
–	–	✓	–	–	1
–	–	–	✓	–	2
–	✓	–	–	–	3
–	–	–	–	✓	4
✓	–	–	–	–	5

Horizontal hinged only available for 3U and 4U cases

H/H = horizontally hinged, V/H = vertically hinged

ACCESSORIES – 3RD DIGIT (REAR FEATURES)

Bump Feet ▲	Std. Rear Panel	Fan Panel	Rear Bezel Trim	
–	–	–	–	0
✓	–	–	✓	1
–	–	–	✓	2
✓	✓	–	–	3
–	✓	–	–	4
✓	–	✓	–	5
–	–	✓	–	6

▲ Bump foot only available for 3U cases

ACCESSORIES – 4TH DIGIT

Carrying Handle ▲	Chassis Support Kit	19" Chassis Tray Kit	Slides for Rack/Chassis (522 mm)	
–	–	–	–	0
–	✓	–	–	1
–	–	–	✓	2
–	✓	✓	–	3
–	✓	✓	✓	4
✓	–	–	–	5
✓	–	–	✓	6
✓	✓	–	–	7
✓	✓	–	✓	8
✓	✓	✓	✓	9

▲ Carry Handle only available for 3U cases

CASES – 5TH AND 6TH DIGITS

	Height	Width	Depth	Fan Plinth	Horiz. ► or Vertical ▼
01	3U	19"	322	–	►
02			422	–	►
03			522	–	►
06			322	✓	►
09			422	✓	►
12	3U	10½"	522	✓	►
15			322	–	►
16			422	–	►
19	4U	19"	322	–	►
20			422	–	►
21			522	–	►
24			322	✓	►
27			422	✓	►
30	4U	10½"	522	✓	►
33			322	–	►
34			422	–	►
37	3U	19"	422	–	▼
38			522	–	▼
39	4U	19"	422	–	▼
40			522	–	▼
41	6U	19"	322	–	►
42			422	–	►
43			522	–	►
44			622	–	►
45			322	✓	►
48			422	✓	►
51			522	✓	►
54			622	✓	►
55			622	✓	►
57			422	–	►
58	9U	19"	522	–	►
59			622	–	►
60			422	✓	►
63			522	✓	►
66			622	✓	►
67			622	✓	►

DIPLOMAT-RF Cases

INTRODUCTION

Whilst retaining the good looks of the standard DIPLOMAT case, **DIPLOMAT-RF** offers a flexible approach to screening to assist in meeting today's requirements in Electro Magnetic Compatibility.

FEATURES

- Quick release top and bottom covers
- Supplied assembled
- High EMC performance capability
- Identical appearance to the existing DIPLOMAT case range
- Accepts existing DIPLOMAT accessories
- Optional EMC performance levels
- 3U, 4U and 6U heights
- Full and half width versions
- Two depths; 422 and 522mm
- Standard, horizontal case, vertical and fan plinth versions

Being externally identical it provides the opportunity for existing DIPLOMAT users to upgrade their product without introducing visual differences. In addition, most existing DIPLOMAT accessories are compatible, making a change to the latest version relatively simple.

By selectively spacing BeCu fingers it is possible to achieve a level of screening adequate for your needs at a minimum additional cost. To assist in this selection we provide performance graphs with varying levels of RFI finger application.

The changes which provide the significant performance improvement over the existing DIPLOMAT range are the incorporation of strategically located paint-free interfaces for the application of RFI fingers, optional EMC panels in three forms and, in the ventilation plinth, a finely perforated base panel.

In addition to these changes, there are improved fan mounting plates which can also be used in the existing DIPLOMAT 19" case.

Like its predecessor, the **DIPLOMAT-RF** is supplied individually packed in assembled form, although it will be necessary to remove its covers to apply the selected quantity of RFI fingers.

The **DIPLOMAT-RF** case is finished in light and mid grey, BS 4800 00A01 and 00A05 respectively.



DIPLOMAT-RF 19" Cases

MATERIAL SPECIFICATION

DIPLOMAT-RF Standard and vertical cases

Item	Material
Bezels, side extrusions, front trims, vertical feet bars	Aluminium alloy extrusions
Top and bottom covers, rear panels side infill covers, (vertical) handle recess trim	0,9mm Zintec coated steel
Feet	ABS plastic
Finish	Textured electrostatic epoxy

Colours

Top, bottom and side infill covers	Light grey BS 4800 00A01
All other parts	Mid grey BS 4800 00A05

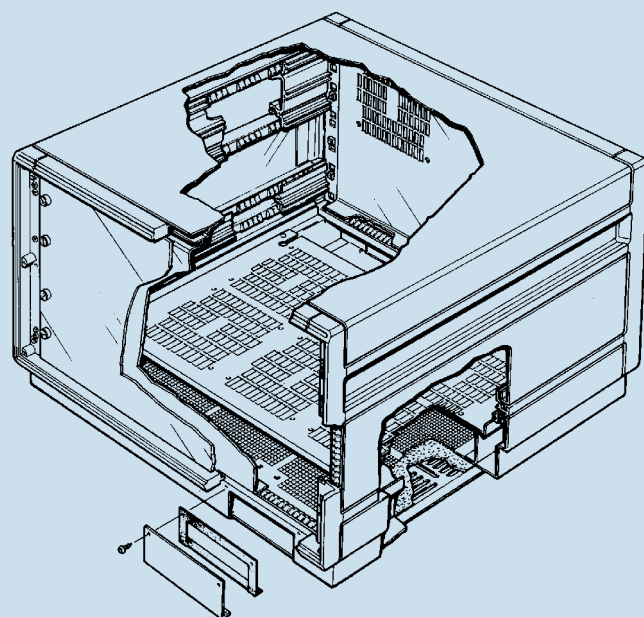
DIPLOMAT-RF Ventilation plinth version

As standard cases, but including:

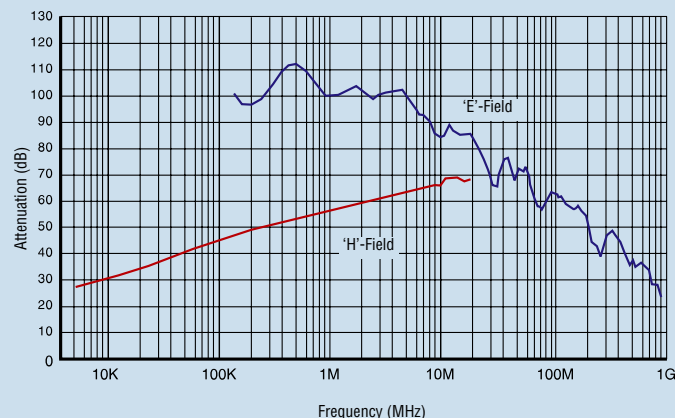
Plinth bottom cover, top cover	1,2mm Zintec coated steel
Plinth tray filter	Synthetic filter
Colours	
Plinth tray	Mid grey BS 4800 00A05

Order separately

Description	Page
Transparent doors	10
Feature front panels	11
Bezel trims	11
Bump down feet	13
Earth continuity kit	14
Chassis supports and chassis tray	14
Fan mounting plate	21
RFI Fingers	21
Heavy duty carry handle	21
Front and rear full-width EMC panels	22 – 23
Fan panel accessories	23
Cable tidy	23



EMC DIPLOMAT (6U x 19" x 522mm)



DIPLOMAT-RF 19" and 10 1/2" Horizontal Cases

DIPLOMAT-RF STANDARD CASES

FEATURES

- Accepts 19" and 10 1/2" equipment practice subracks and chassis
- IEC297-1 compatible
- Full and half width versions available

CONTENTS OF KIT

Description	Qty	Material
Top cover	1	0,9mm Zintec coated steel
Bottom cover	1	0,9mm Zintec coated steel
Handle extrusions	2	Aluminium alloy extrusion
Side extrusions	2	Aluminium alloy extrusion
Bezels	2	Aluminium alloy casting
Feet	4	ABS plastic

ORDERING INFORMATION

Description: DIPLOMAT-RF Standard cases - full width 19"

Height	Width	Ext. depth	Max. int depth	Max. int width	A	B	C	Order code
3U (161,85)	19" (530)	422	377	471	450	134,85	17	760-261659
		522	477	471	450	134,85	17	760-261660
4U (206,30)	19" (530)	422	377	471	450	179,30	17	760-265029
		522	477	471	450	179,30	17	760-261663
6U (295,20)	19" (530)	422	377	471	450	268,20	17	760-261665
		522	477	471	450	268,20	17	760-261666

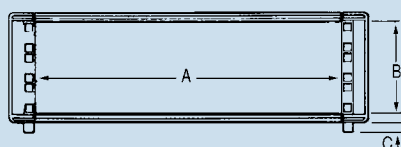
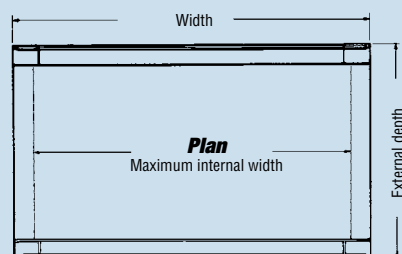
Description: DIPLOMAT-RF Standard cases - half width 10 1/2"

3U (161,85)	10 1/2" (314)	422	377	255	234	134,85	17	760-261658
4U (206,30)	10 1/2" (314)	422	377	255	234	179,30	17	760-261662

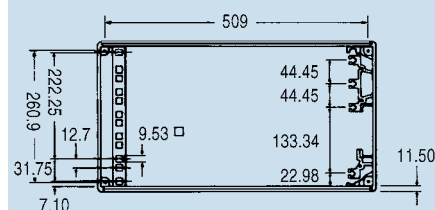


DIPLOMAT-RF Standard Cases: full and half-widths

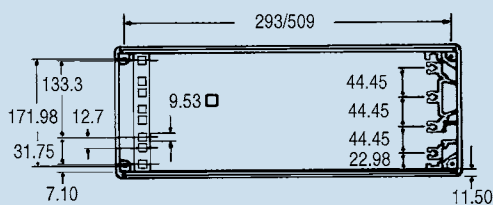
Standard and Vertical cases



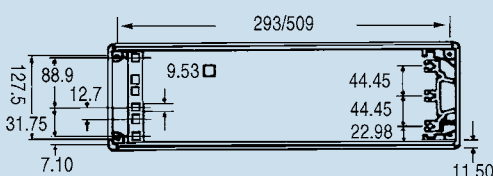
6U DIPLOMAT



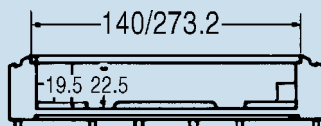
4U DIPLOMAT



3U DIPLOMAT

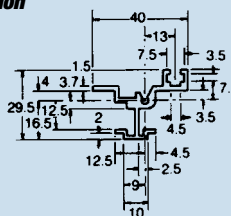


Bezel section

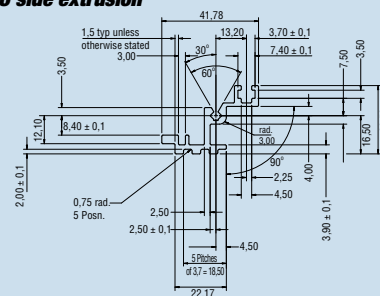


Extrusions Overall length of extrusion = 366/466mm

6U extrusion

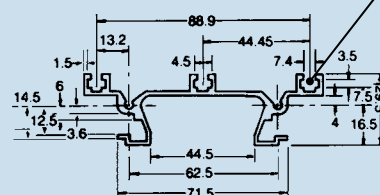


4U side extrusion



Handle extrusion

Note: Groove accepts a standard M4 size nut



DIPLOMAT-RF 19" Ventilation Plinth Case

DIPLOMAT-RF VENTILATION PLINTH 19" CASES

Offering the facility to house fans below the main body of the enclosure, the fan plinth version is supplied complete with filter which can be removed from beneath the unit. Fans can be fixed to the internal bottom cover or alternatively on separate mounting plates which can also provide finger protection.

FEATURES

- 3U, 4U and 6U heights and two depths: 422 and 522mm
- Excellent airflow for thermal management

CONTENTS OF KIT

Description	Qty	Material
Vented top cover	1	1,2mm Zintec coated steel
Plinth bottom cover	1	1,2mm Zintec coated steel
Handle extrusions	2	Aluminium alloy extrusion
Side extrusions	2	Aluminium alloy extrusion
Bezels	2	Aluminium alloy casting and extrusion
Feet	4	ABS plastic

ORDERING INFORMATION

Description: DIPLOMAT-RF Standard cases - full width

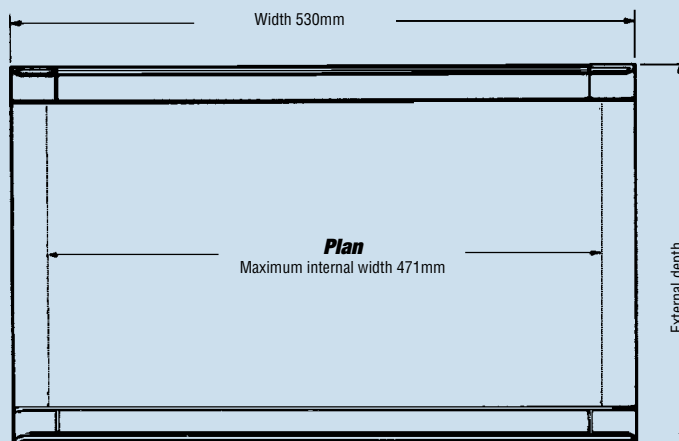
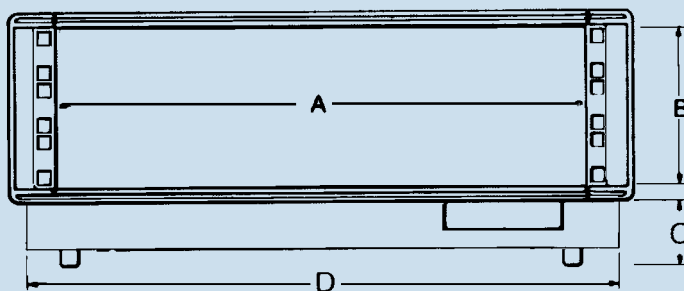
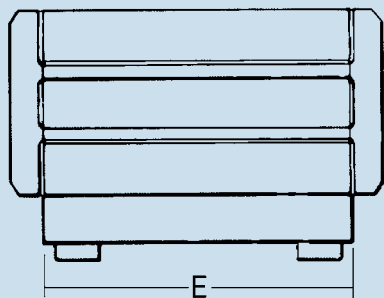
Height	Width	Ext. depth	Max. int depth	Max. int width	A	B	C	D	E	Order code
3U (161,85)	19" (530)	422	377	471	450	134,85	39,5	506,4	386,10	760-261661
4U (206,30)	19" (530)	522	477	471	450	179,30	39,5	506,4	486,10	760-265032
6U (295,20)	19" (530)	422	377	471	450	268,20	39,5	506,4	386,10	760-261667
	19" (530)	522	477	471	450	268,20	39,5	506,4	486,10	760-261668

For details of accessories exclusively for DIPLOMAT-RF Cases refer to pages 21 – 23.



DIPLOMAT-RF ventilation plinth cases

Ventilation plinth



DIPLOMAT-RF VERTICAL 19" CASES

With its pleasing modern appearance and stability enhancing feet the **DIPLOMAT-RF** vertical case is ideal for use in office-based computer and networking applications where equipment may be situated on, beside, or beneath, desks. The vertical version is basically the same as the normal horizontal case, but with the feet captured in the bottom recess. An infill extrusion in the top recess provides a clean appearance, and the side covers have ventilation slots to provide cooling. In the **DIPLOMAT-RF** the ventilation apertures are selected to assist the maintenance of the EMC screen.

FEATURES

- 4U x 19", 522mm depth
- Stabilising feet
- Floor or desk mounting

CONTENTS OF KIT

Description	Qty	Material
Top cover	1	0,9mm Zintec coated steel
Bottom cover	1	0,9mm Zintec coated steel
Handle extrusions	2	Aluminium alloy extrusion
Side extrusions	2	Aluminium alloy extrusion
Bezels	2	Aluminium alloy casting and extrusion
Feet	4	ABS plastic
Finish		Textured electrostatic epoxy paint
Colour: Side covers		Light grey BS4800-00A01
Front and rear bezels, side handles and extrusions, infills and feet		Mid grey BS4800-00A05

ORDERING INFORMATION

Description: DIPLOMAT-RF Vertical cases

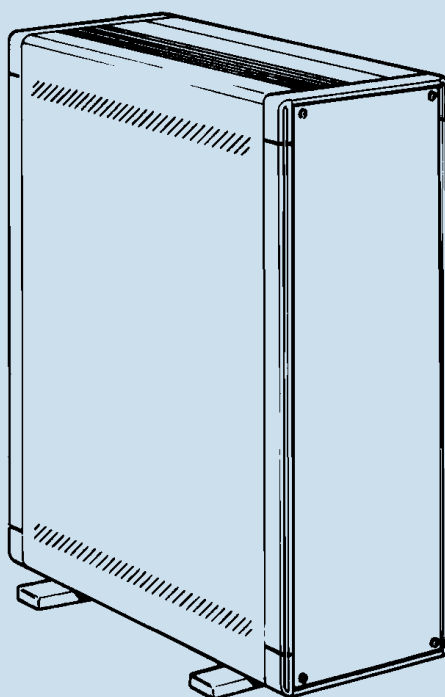
Height	Width	Ext. depth	Max. int depth	Max. int width	A	B	C	Order code
4U (206,30)	19" (530)	522	477	471	450	179,30	–	760-261664

For details of accessories exclusively for DIPLOMAT-RF Cases refer to pages 21 – 23.

Many standard DILOMAT accessories are also suitable – see pages 10 – 14.



DIPLOMAT-RF vertical cases



DIPLOMAT-RF 10 1/2" and 19" Case Accessories

DIPLOMAT-RF ACCESSORIES

The accessories shown over the next three pages are specific to **DIPLOMAT-RF**. All accessories catalogued for standard DIPLOMAT cases and caseframes are also compatible with this product line. Refer to pages 10 – 14 for Diplomat case accessories and to pages 35 – 48 for caseframe accessories.

FAN MOUNTING PLATE – 19" CASES ONLY

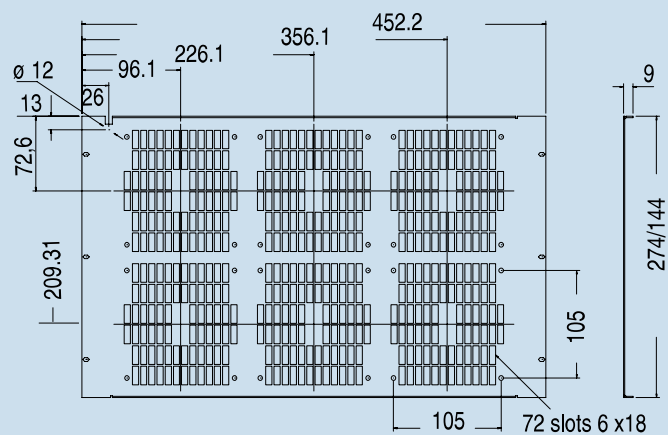
Available in one and two row versions (3 or 6 in fan positions) these plates can be fitted at various positions for specific cooling requirements, and also act as finger guards. Supplied with fixing screws. Fans and mounting accessories should be ordered separately.

ORDERING INFORMATION

Description: Fan mounting plate

Type	Order code
Three fan plate	760-265056
Six fan plate	760-265057

Fan mounting plate



RFI FINGER STRIP

Supplied in lengths of 406mm comprising 64 self-adhesive BeCu fingers, they can be simply cut into smaller lengths if less than full population is required. The adhesive is self-curing, requiring 24 hours to set firmly. The assembly leaflet supplied with the **DIPLOMAT-RF** has instructions on positioning the fingers.

ORDERING INFORMATION

Description: RFI Finger strip

Type	Length	Order code
Strip of 64 RFI fingers	406mm	760-265068



RFI Finger strip

HEAVY DUTY CARRY HANDLE – 3U AND 4U CASES ONLY

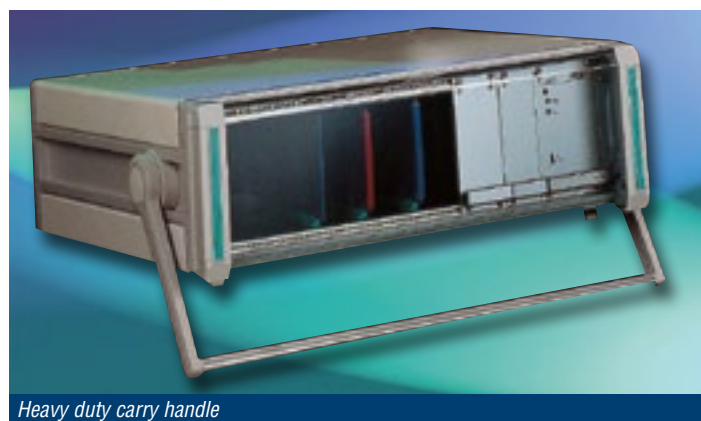
This heavy duty handle is designed to visually coordinate with the DIPLOMAT cases. It is suitable for 3U and 4U cases and will accept loads of up to 300N. The handle has a press button mechanism which locks in increments of 30°. This allows the cases to be easily carried or tilted on a work surface. A template is supplied with the kit for easy drilling and to assist location in the side extrusions.

CONTENTS OF KIT

Description	Qty.	Material/finish
Side arms and location mouldings	2	Polycarbonate, mid grey
Cross bar	1	Alu. alloy etch and clear anodise
Fixing screws		

ORDERING INFORMATION

Description	Width	Order code
Carry handle Cases	10 1/2"	60-202675
	19"	60-202673



Heavy duty carry handle

FRONT AND REAR PANELS

The flanges on the following panels reduce the usable space by 3mm top and bottom. The DIPLOMAT-RF will accept standard 19" panels but their use could degrade the EMC performance significantly.

FRONT PANELS – 10½" AND 19"

These aluminium front panels comprise two parts; a facia panel and an inner panel. The inner panel, which is flanged to provide contact with the top and bottom RFI fingers, is chromated. The anodised finish of the facia panel gives a good aesthetic appearance. The two parts are supplied assembled using weld studs, nuts and washers. They can be taken apart for piercing if required. Fixing screws and cage nuts should be ordered separately.

CONTENTS OF KIT

Description	Qty.	Material/finish
Front panel	1	Outer panel: 2mm Aluminium alloy, satin anodised Inner panel: 1,2mm Aluminium alloy, satin anodised

ORDERING INFORMATION

Description: DIPLOMAT-RF Front panel

Height	Width	Order code
3U	10½"	760-262611
	19"	760-262612
4U	10½"	760-262613
	19"	760-262614
6U	19"	760-262615

VENTILATED 10½" AND 19" REAR PANELS

These steel rear panels are available in two versions – standard ventilated or fan ventilated – and two widths to suit 10½" and 19" DIPLOMAT-RF Cases.

The standard ventilated versions are supplied pre-punched with 6mm ø holes across the full width of the rear panel, providing a safe passage of air through the case whilst maintaining a high level of EMC protection. The fan ventilated versions are supplied with pre-punched vent areas with the relevant fixing holes to mount 120mm square fans. These panels are particularly suited to applications requiring forced cooling to aid air throughput whilst maintaining a high level of EMC protection.

Having a selectively painted finish, with flanges to provide contact with the top and bottom RFI fingers, this steel panel is fixed via the normal 19" mounting holes. The ventilation pattern is selected to assist in the maintenance of a good EMC performance. Supplied complete with fixing screws and cage nuts.

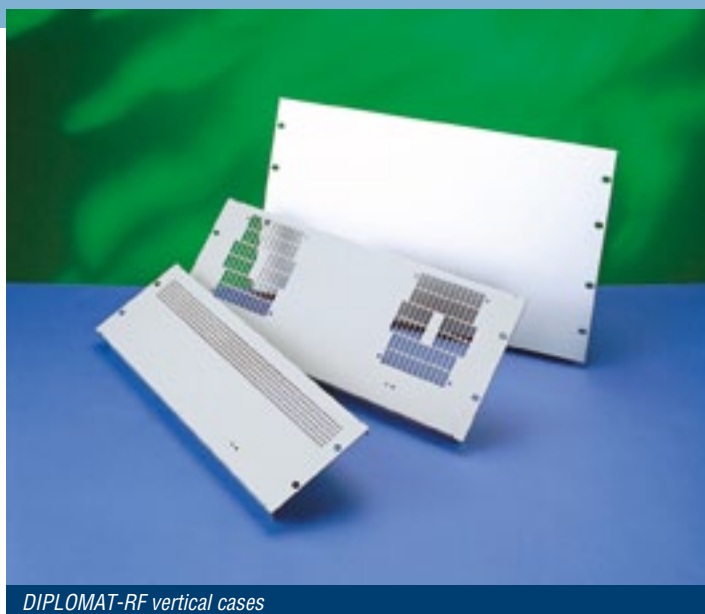
CONTENTS OF KIT

Description	Qty.	Material/finish
Rear panel	1	1,2mm steel, mid grey BS4800-00A05
Fixing screws		

ORDERING INFORMATION

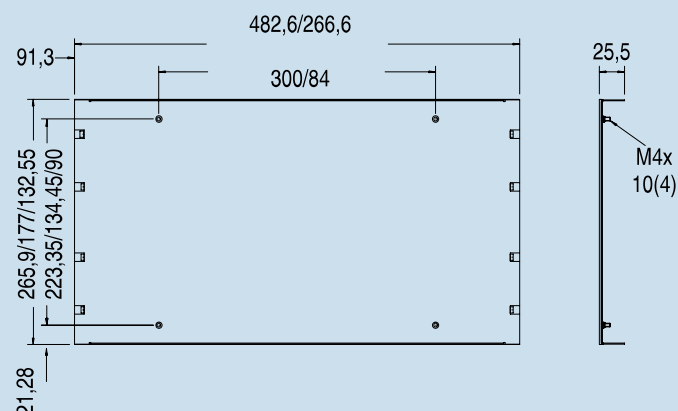
Description: Ventilated rear panel

Height	Width	Order code
3U	10½"	760-262600
	19"	760-262601
4U	10½"	760-262602
	19"	760-262603
6U	19"	760-262604

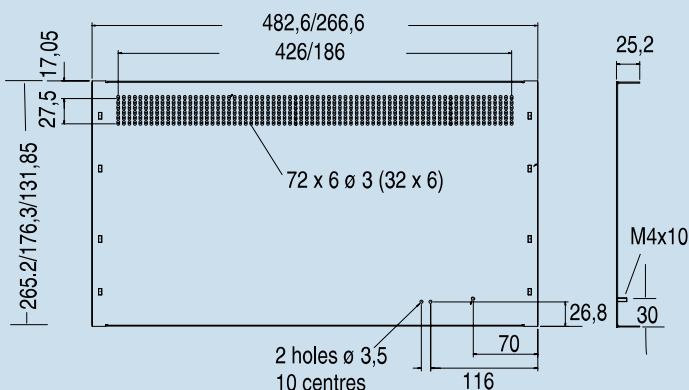


DIPLOMAT-RF vertical cases

19" Front panels



Ventilated rear panel



FAN REAR PANEL

Similar to the ventilated panel above, but the pattern of ventilation holes permits the mounting of 120mm square fans. Supplied with fixing screws and cage nuts. Fans and mounting accessories should be ordered separately.

CONTENTS OF KIT

Description	Qty.	Material/finish
Rear panel	1	1,2mm steel, mid grey BS4800-00A05
Fixing screws		

ORDERING INFORMATION

Description: Ventilated rear panel

Height	Width	Fan positions	Order code
3U	10½"	1	760-262595
	19"	1	760-262596
4U	10½"	1	760-262597
	19"	2	760-262598
6U	19"	2	760-262599

FAN PANEL ACCESSORIES

ORDERING INFORMATION

Description	Order code
120mm 220V AC 50Hz fan	28-238116
80mm 220V AC 50Hz fan	28-42355
120mm Finger guard	28-202490
80mm Finger guard	28-42366
Fan fixing kit	28-43872
Fan connection lead	28-241569

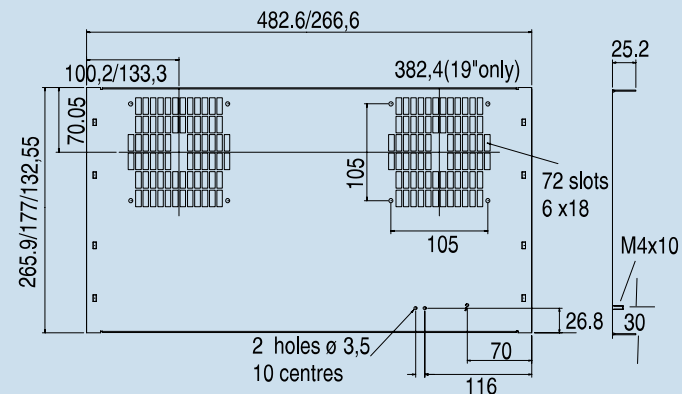
REAR CABLE TIDY – 10½" AND 19" COMPATIBLE

The rear cable tidy allows power cables to be conveniently and tidily stored. It is supplied as a kit of two mouldings which are attached directly to the pre-punched rear panels (both types).

ORDERING INFORMATION

Description	Order code
Rear cable tidy	517-203357

Fan rear panel



Fan panel accessories



Rear cable tidy

A fan carrier with a removable filter can be directly mounted into the plinth section. Alternatively, this area can be used to accommodate power supplies, processor boards and cables.

A removable gland plate at the rear of the plinth provides access to the fan carrier filters, or mounting for interconnections and power cables. A key lock on each of the two side panels facilitates quick and easy access to the internal components.

Computer towers are supplied with four adjustable feet.

DIPLOMAT computer towers are easily customised to suit specific applications. Different variations, sizes and colours can be provided to special order. Please contact your local sales engineer or our sales office on 02380 246900 for details.

Safety note

For safety reasons it is recommended that the DIPLOMAT computer towers are fitted with an earth continuity kit. **Order code 60-54598H**

CONTENTS OF KIT (Supplied assembled)

Description	Qty.	Material/Finish
Bezels	2	Aluminium alloy, mid grey BS 4800 00A05
19" rack mounting angles	2	0.9mm Zinc plated and passivated steel
Side covers	2	1.2mm Zintec coated steel light grey BS 4800 00A01
Plinth section	1	1.2mm Zintec coated steel light grey BS 4800 00A01
Depth extrusions	4	Aluminium alloy, mid grey BS 4800 00A05
Feet	4	
Top cover	1	1.2mm Zintec coated steel light grey BS 4800 00A01
Screw Kit		
Finish		Textured electrostatic epoxy

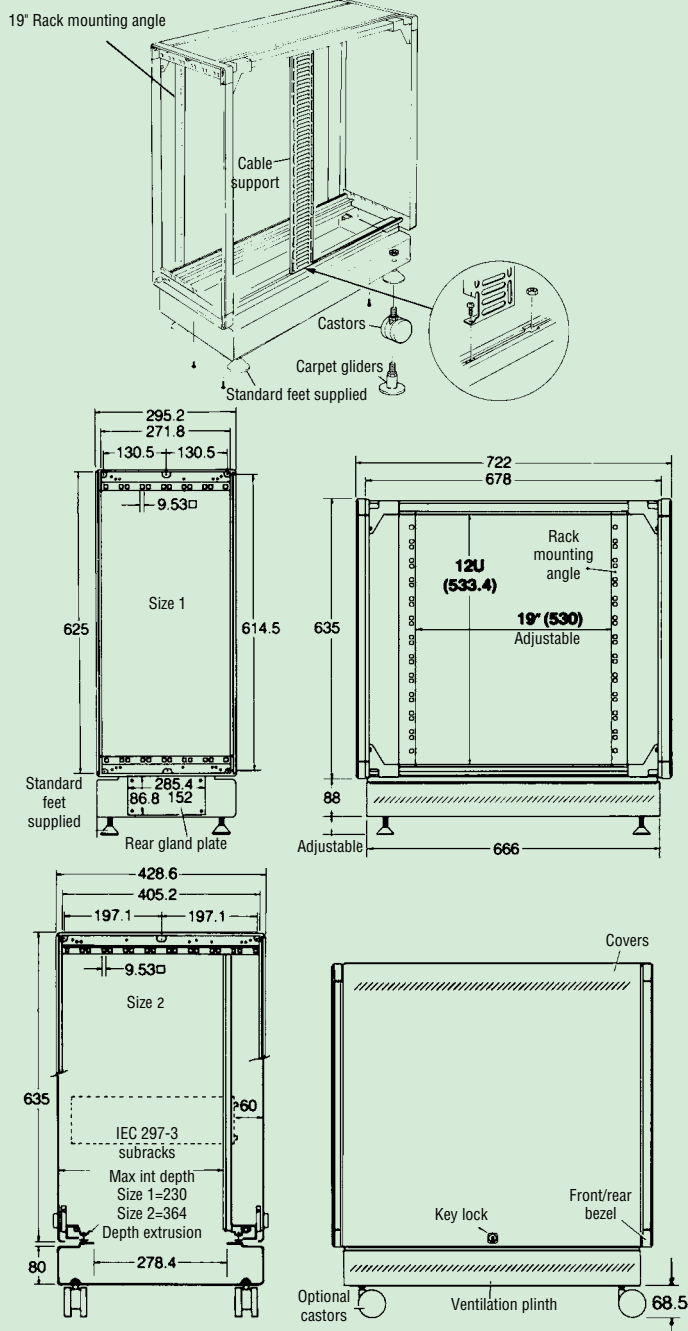
Ordering information

Description	Order code
Computer tower, size 1	760-236639
Computer tower, size 2	760-236640



12U DIPLOMAT Computer towers

DIPLOMAT COMPUTER TOWER EXPLODED VIEW



Note: Where dual dimensions are shown the lower is for size 1 the higher for size 2

APPLICATIONS

The DIPLOMAT caseframe is designed for desk mounted or portable applications. Its lightweight yet robust construction makes it ideally suited for use in office, laboratory or factory environments.

Fully compatible with Verotec's market leading KM6-II subrack system, the caseframe directly accepts Eurocards and plug-in modules conforming to IEC 297-3, DIN 41494 pt5 and BS 5954 specifications. KM6-II tie bars, card guides and accessories may be fitted without modification.

Two versions of the DIPLOMAT are available - standard units for general purpose applications and fan plinth units for use when heat is a problem.

STANDARD CASEFRAMES

The standard DIPLOMAT caseframes are available in heights of 3U and 6U, widths of 42, 60 and 84 HP and depths of 324, 444 and 564mm.

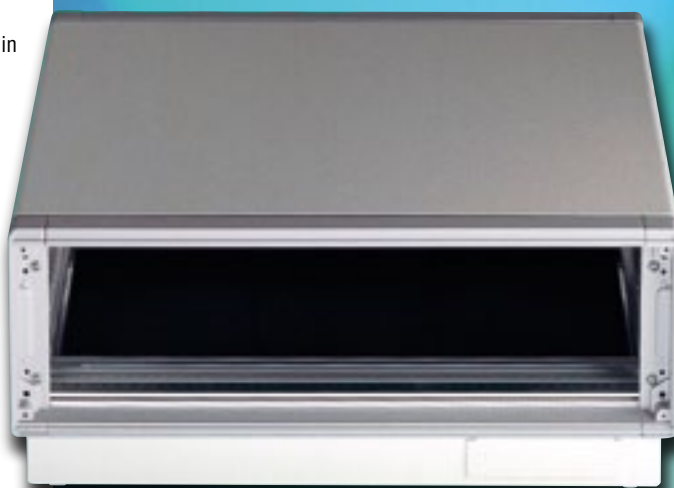
CONSTRUCTION

Each DIPLOMAT consists of a front and rear die-cast bezel, aluminium side extrusions and steel cover panels. The construction, whilst being extremely strong, is lightweight.

The aluminium side extrusions, which are secured to the bezels with four fixings front and rear, have a handle feature to enable the unit to be carried easily. The extrusions also have two rows of fixing holes on a 12mm pitch for KM6-II tie bars. Two and four side extrusions are provided on 3U and 6U units respectively.

Top and bottom covers are secured to the basic frame with two fixings, which pass through the rear bezel, and location tags which fit into the front bezel. The 6U infill covers are secured in the same way. Bottom covers also include ventilation slots.

Each DIPLOMAT is supplied assembled, two front trims which hide the case fixing screws are ordered as accessories and four nonslip feet, two of which can be tilted, are included. The screws also provide earth continuity between components.



DIPLOMAT caseframes

DIPLOMAT Caseframes Overview

This range of cases is for the direct mounting of circuit boards and modules to IEC 297-3, DIN 41494 pt5 and BS 5954.

FEATURES

- EMC conversion
- Superb modern styling
- Robust yet lightweight construction
- Conforms to IEC 297-3, DIN 41494 pt5 and BS 5954, fully compatible with KM6-II subrack system
- Supplied assembled
- Quick release top and bottom covers
- Large range of ex-stock sizes and large range of accessories
- Easy to customise
- Available with fan cooling plinths
- Finished in colour combination of light and mid grey

STANDARD CASEFRAME

Contents of kit

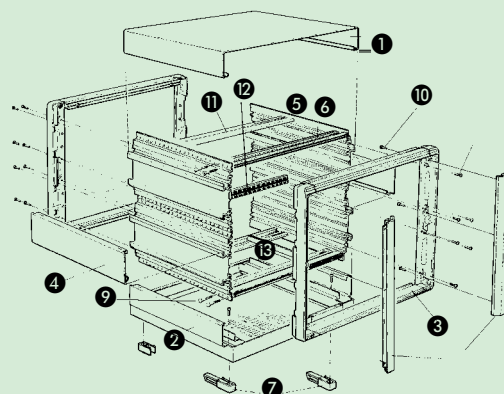
No.	Description	Qty	Material/finish
1	Top Cover	1	0,9mm Zintec coated steel
2	Bottom Cover	1	0,9mm Zintec coated steel
3	Bezels	2	Aluminium alloy
4	Side Cover (6U only)	2	0,9mm Zintec coated steel
5	Handle Extrusions	2	3U – not shown
		2	6U – type 'A' or
		2	6U – type 'B'
6	Front Tie Bars and Tapped Strips	2	Aluminium alloy
		2	Mild steel zinc and passivate
7	Feet (tilting) and Screws	2	ABS Plastic (grey)
		4	
8	M4 x 16 Screws	12	3U caseframe
		28	6U caseframe
9	M4 x 25 SKT Cap Screws	16	3U caseframe
		20	6U caseframe
10	M4 x 8 Screws	4	
11	Rear Tie Bars and Tapped Strips	2	Aluminium alloy
		2	Mild steel and zinc passivate
12	Mid Rear Tie Bars and Tapped Strips (6U only)	1	Aluminium alloy
		2	Mild steel and zinc passivate

ACCESSORIES (not supplied in kit)

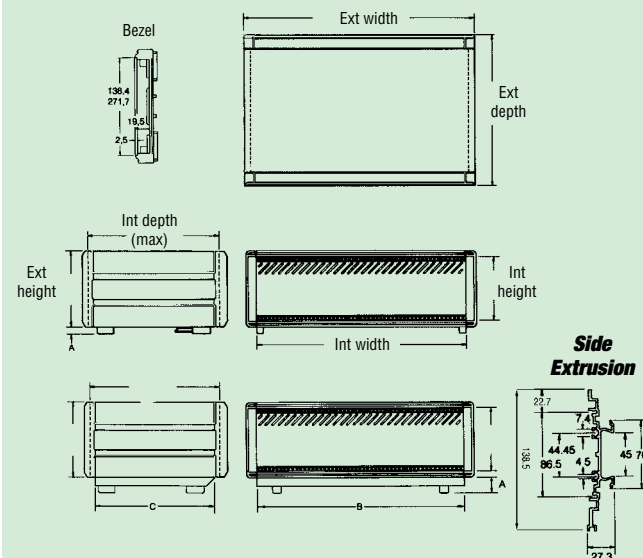
13	Guides	Order Separately
Finish		Textured electrostatic epoxy
Colours Top, bottom and side infill covers		Light grey BS4800-00A01.
All other parts		Mid grey BS 4800 00A05



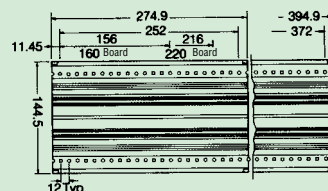
DIPLOMAT caseframes



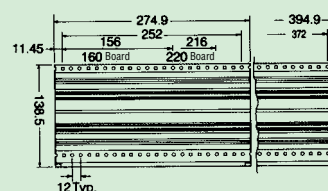
Standard caseframes



3U Side Extrusion
324mm Units 444mm Units



6U Side Extrusion
324mm Units 444mm Units



DIPLOMAT Caseframes 3U and 6U horizontal versions

Horizontal DIPLOMAT Caseframes are available in standard, basic and fan plinth versions.

The standard version includes front and rear tie bars, tapped strips and all relevant fixing screws. The basic version does not contain any tie bars and consists of top and bottom covers, bezels, side extrusions, feet and fixings.

STANDARD CASES – supplied assembled

CONTENTS OF KIT

Description	Qty	Material/Finish
Top cover	1	0.9mm Zintec covers, coated steel
Bottom cover	1	0.9mm Zintec covers, coated steel
Bezels	2	Aluminium alloy
Handle extrusions	2 with 3U 4 with 6U	Aluminium alloy
Side infill covers (6U only)	2	0.9mm Zintec covers, coated steel
Feet (2 tilting)	4	ABS plastic
Exclude for basic versions		
Rear tie bars (3U)	2	Aluminium alloy
Rear tie bars (6U)	3	Aluminium alloy
Front bezel trims	2	Aluminium alloy
KM6-II front tie bars	2	Aluminium alloy
Tapped strips	4 – 6	Mild steel zinc and passivate
Screw kit		

Note: Rear panels and front trims should be ordered separately.

DIPLOMAT CASEFRAMES – STANDARD CASES

ORDERING INFORMATION

	External		Internal			
Height	Width	Depth	Height	Width	Depth	Order code
3U (160,35)	42 HP	324	3U (133,35)	42 HP	279	717-236546
	60 HP	324	3U (133,35)	60 HP	279	717-236547
	84 HP	324	3U (133,35)	84 HP	279	717-236548
	84 HP	444	3U (133,35)	84 HP	399	717-236549
6U (293,70)	60 HP	324	6U (266,70)	60 HP	279	717-236550
	84 HP	324	6U (266,70)	84 HP	279	717-236552
	84 HP	444	6U (266,70)	84 HP	399	717-236553

DIPLOMAT CASEFRAMES – BASIC CASES (excludes front and rear tie bars)

ORDERING INFORMATION

	External		Internal			
Height	Width	Depth	Height	Width	Depth	Order code
3U (160,35)	42 HP	324	3U (133,35)	42 HP	279	717-238220
	60 HP	324	3U (133,35)	60 HP	279	717-238221
	84 HP	324	3U (133,35)	84 HP	279	717-238222
	84 HP	444	3U (133,35)	84 HP	399	717-238223
6U (293,70)	84 HP	444	6U (266,70)	84 HP	399	717-238226

DIPLOMAT CASEFRAMES – BASIC CASES WITH VENTILATION PLINTH

(excludes front and rear tie bars)

ORDERING INFORMATION

	External			Internal			
Height	Width	Depth	Height	Width	Depth	A	Order code
3U (160,35)	84 HP	444	3U (133,35)	84 HP	399	16	717-238228
6U (293,70)	84 HP	444	3U (266,70)	84 HP	399	16	717-238229
	84 HP	564	6U (266,70)	84 HP	519	16	717-238230



DIPLOMAT Caseframes 3U & 6U horizontal versions

Order separately

Product	Page
EMC conversion kits	31 – 32
EMC front panels – individual	33
EMC closing panels	34
Transparent front doors	35
Feature front panels	35
Front and rear bezel trims	36
Heavy duty carry handles	36
Earth continuity kits	36
Steel rear panels	37
Fan panel accessories	38
Rear cable tidy	38
Rear bump down feet	38
Front tie bars	39
Rear backplane mounting tie bars	40
Rear DIN 41612 connector mounting tie bars	41
DIN 41612 connector mountings	42
Backplane spacers	42
PCB or plug-in unit guides	43
PCB grounding clips	44
PCB guide retention	44
PCB retainers and guide nose extensions	45
PCB ejectors	46
PCB handles	46
Front divider kits	47
Rear divider kits	47
Horizontal card mounting modules	48
Fixing screws	48
Front panel and plug-in unit index	49
Front panels and plug-in units	50 – 74

DIPLOMAT Caseframes: 3U vertical and fan plinth versions

DIPLOMAT CASEFRAMES - 3U VERTICAL BASIC CASES

The vertical DIPLOMAT caseframes are available in 3 widths and in two depths. They are supplied in basic assembly format i.e. with no tie bars, tapped strips, trims or rear panels, all of which can be ordered on pages 37 – 41 as accessories. These units are ideal for floor standing or desk top applications involving computer products or power supplies. Additional cooling can be applied to the units by simply ordering rear fan panels or conventional vented panels on page 37. As standard the vertical foot is supplied with rubber inserts to avoid any slippage on a desk surface.

CONTENTS OF KIT

Description	Qty	Material/Finish
Side covers non vented	2	0.9mm Zintec coated steel
Bezels	2	Aluminium alloy
Foot kit	1	ABS plastic and aluminium alloy
Vertical infill panel	1	0.9mm Zintec coated steel
Screw kit		
Finish		Textured electrostatic epoxy paint
Colour: Side covers		Light grey BS4800-00A01
Front and rear bezels, side handles and extrusions, infills and feet		Mid grey BS4800-00A05

ORDERING INFORMATION

Height	External			Internal		Order code
	Width	Depth		Height	Width	
3U (160,35)	42 HP	324	3U (133,35)	42 HP	279	717-238231
	60 HP	324	3U (133,35)	60 HP	279	717-238232
	84HP	444	3U (133,35)	84HP	399	717-238234

DIPLOMAT CASEFRAMES - BASIC CASES WITH VENTILATION PLINTH

The plinth design for the DIPLOMAT caseframe ensures, that the air flow is distributed across the full width of the case and will be directed across the cards and up over the backplane.

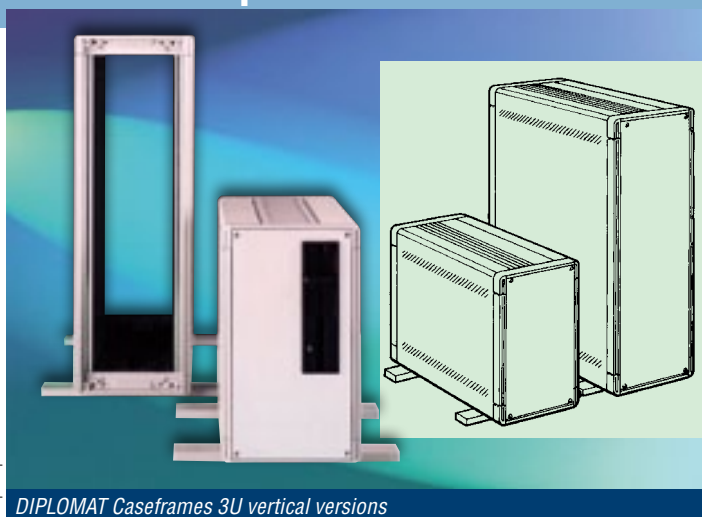
Typical air velocities as achieved in a fully loaded system are shown on the right and demonstrate the consistency of air flow even in slot 1 position where many hot cards will be placed. The three dimensional representation on page 3 shows in more detail the front to back air flow characteristics.

The fan plinth version also does not include any tie bars and tapped strips. These should be ordered as accessories from pages 39 – 41. All cases do not include a rear panel or trims, since there is a choice of rear panels and trims on page 37 which should be ordered as accessories.

ORDERING INFORMATION

Height	External			Internal		Order code
	Width	Depth		Height	Width	
3U (160,35)	84 HP	444	3U (133,35)	84 HP	399	717-238228
	84 HP	444	6U (266,70)	84 HP	399	717-238229
6U (293,70)	84 HP	564	6U (266,70)	84 HP	519	717-238230

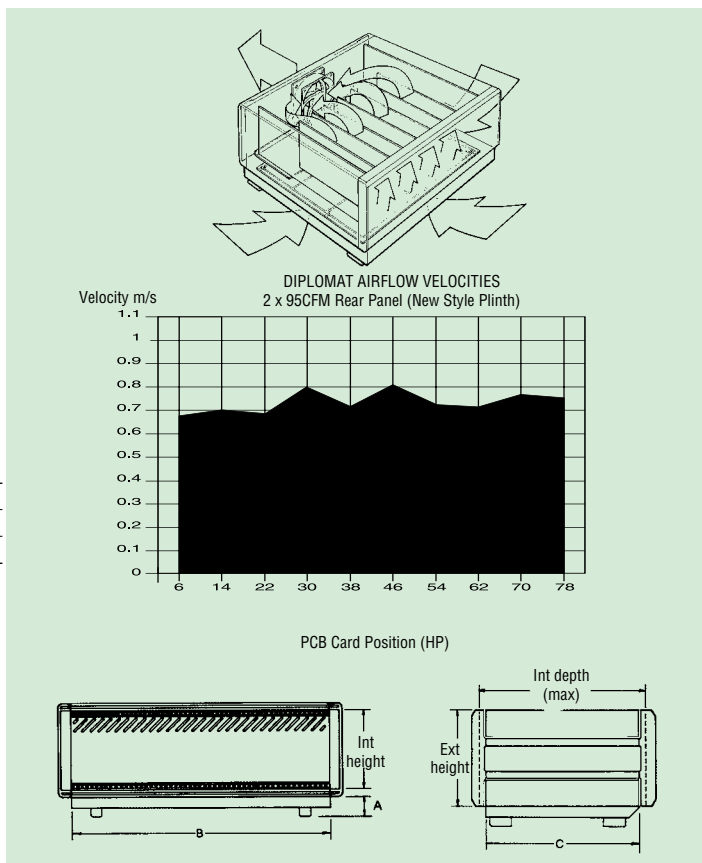
Please refer to pages 31 – 34 for EMC upgrade kits.



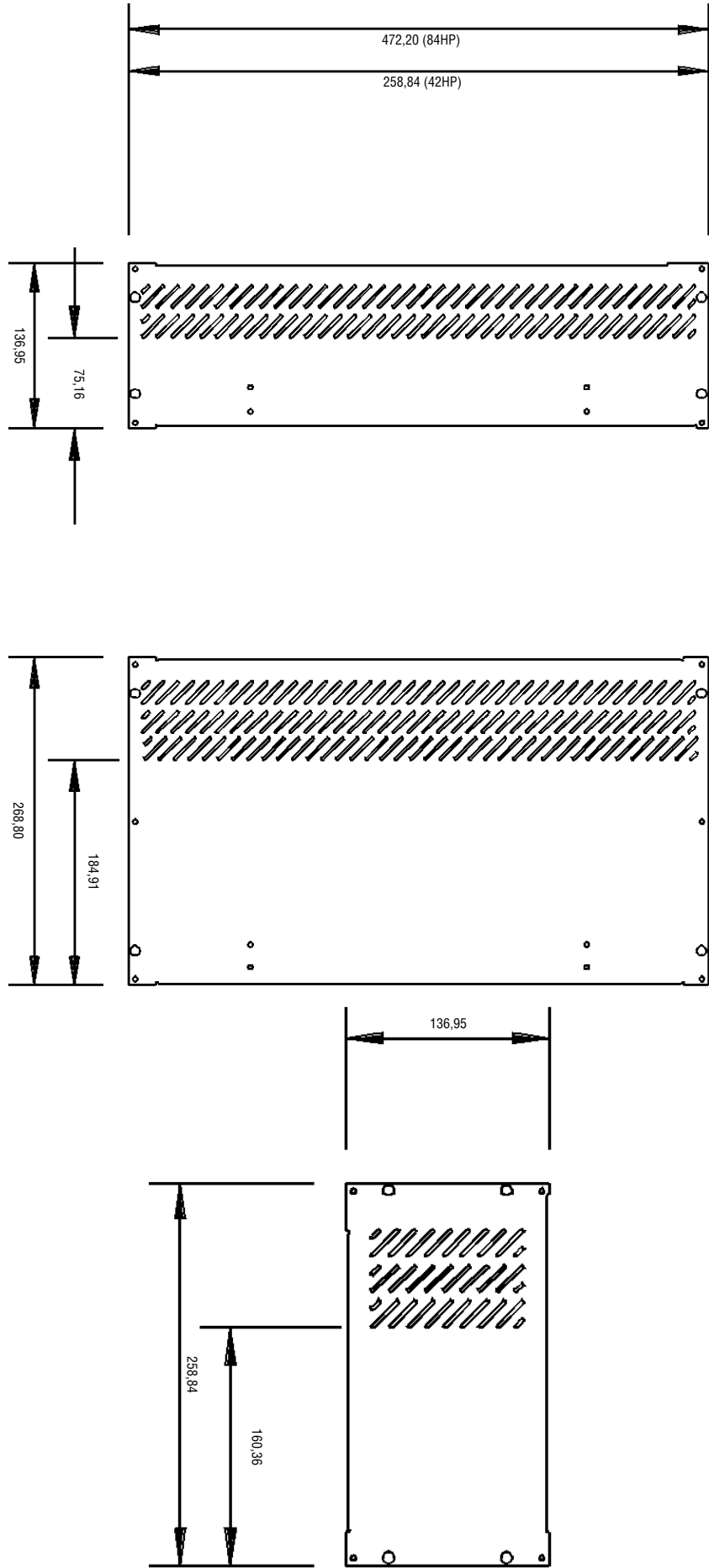
DIPLOMAT Caseframes 3U vertical versions



DIPLOMAT Caseframes fan plinth versions



19" CASEFRAME REAR PANELS



DIPLOMAT Caseframe – Configurator

Verotec have an assembly service so that you can receive your DIPLOMAT with most of the available accessories already assembled, saving you assembly time, and reducing the amount of packaging that you have to unwrap and dispose of. There is no extra cost to you. If you want an assembled product then either ring the Verotec sales desk who will note your requirements and give you a unique product code for your exact requirements, or use the tables below to build a product code

718-

ACCESSORIES – 1ST DIGIT

19" Case with earthing kit fitted	6
19" Case without earthing kit fitted	7

ACCESSORIES – 2ND DIGIT (FRONT FEATURES)

Transparent Door H/H	Transparent Door V/H	Plain Bezel Trim	Colout Bezel Trim	Front Panel	
–	–	–	–	–	0
–	–	✓	–	–	1
–	–	–	✓	–	2
–	✓	–	–	–	3
–	–	–	–	✓	4
✓	–	–	–	–	5

Horizontal hinged only available for 3U and 4U cases

H/H = horizontally hinged, V/H = vertically hinged

ACCESSORIES – 3RD DIGIT (REAR FEATURES)

Bump Feet	Std. Rear Panel	Fan Panel	Rear Bezel Trim	
–	–	–	–	0
✓	–	–	✓	1
–	–	–	✓	2
✓	✓	–	–	3
–	✓	–	–	4
✓	–	✓	–	5
–	–	✓	–	6

▲ Bump foot only available for 3U cases

ACCESSORIES – 4TH DIGIT

Carrying Handle	Bump down feet	
–	–	0
✓	–	1
–	✓	2
✓	✓	3

▼ Carry Handle only available for 3U cases

● Bump foot only available for 3U cases

for your exact requirements. Any product from these tables, which start with 761 for the DIPLOMAT Case and 718 for the System DIPLOMAT, will be supplied fully assembled. If you order with the individual codes beginning with 760, 717, or 60 given under the various articles then each item described by that code will be supplied separately packaged.

CASEFRAMES – 5TH AND 6TH DIGITS

	Height	Width HP	Depth	Fan Plinth	Std. or Basic	Horiz. ► or Vertical ▼
01	3U	42	324	–	Std	►
02		60	324	–	Std	►
03		84	324	–	Std	►
04		84	444	–	Std	►
05		42	324	–	Basic	►
06		60	324	–	Basic	►
07		84	324	–	Basic	►
08		84	444	–	Basic	►
11		84	444	✓	Basic	►
14		42	324	–	Basic	▼
15		60	324	–	Basic	▼
16		84	324	–	Basic	▼★
17		84	444	–	Basic	▼
18	3U	60	324	–	Std	►
19		84	324	–	Std	►
20		84	444	–	Std	►
21		60	324	–	Basic	►★
22	6U	84	324	–	Basic	►★
23			444	–	Basic	►
24			444	✓	Basic	►
27			564	✓	Basic	►★

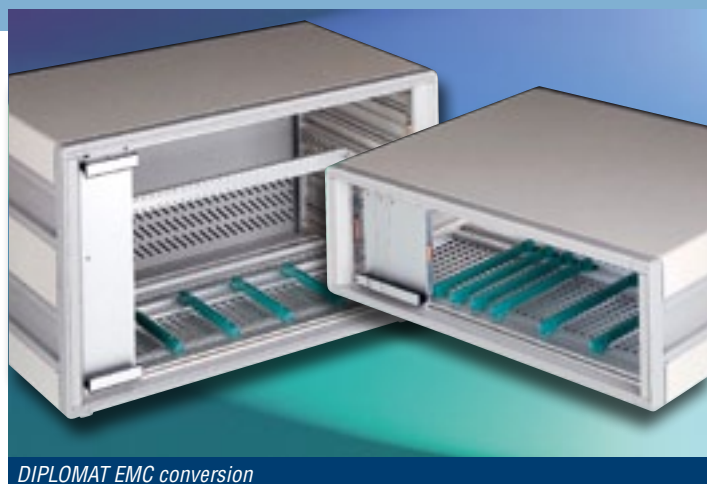
★ These are non-preferred items and are subject to a minimum order quantity of 25 pieces.

EMC CONVERSION KITS FOR DIPLOMAT CASEFRAMES

These EMC conversion kits enable KM6-II DIPLOMAT Caseframes to be converted to EMC Caseframes without modification and at little extra cost.

The kits comprise a range of components, including top and base covers, side closing plates.

Rear tie bars, tapped strips and full or individual EMC front or rear panels should be ordered separately. Please refer to pages 33 – 34 for details.

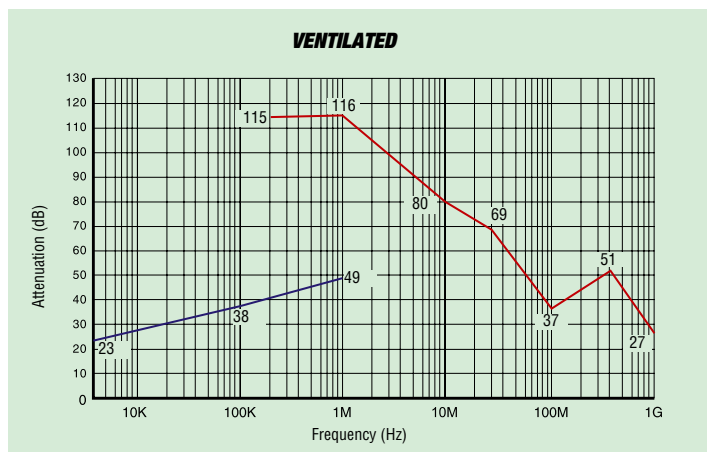
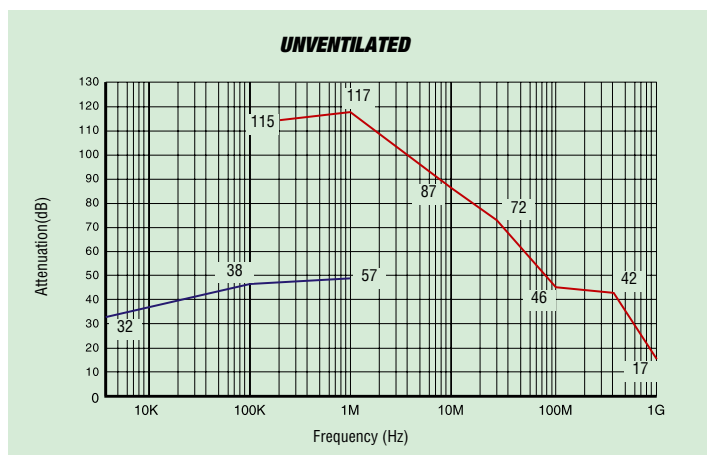


TYPICAL SHIELDING PERFORMANCE

These performance figures were obtained by testing a representative sample from production batches. The tests carried out were in accordance with MIL STD 285, adapted to suit smaller enclosures. The figures are given as a guideline. Any additions or modifications will have an effect upon the shielding performance, and it is essential, therefore, that these units are re-tested once all the equipment has been mounted into them. Performance figures were obtained from caseframes fitted with full width EMC panels front and rear reading from the top panel.

E : FIELD : Denotes electric field

H : FIELD : Denotes magnetic field



WHAT MUST I ORDER TO ACHIEVE AN EMC CASEFRAME?

1 DIPLOMAT caseframe – pages 27 and 28

+

1 EMC conversion kit – page 32

+

1 Side closing plate kit (depending on height) – page 32

+

EMC Fingers – page 32

+

EMC Front panels – pages 33 and 34

DIPLOMAT Caseframe EMC Conversion Kits

EMC CONVERSION KITS

In order to provide effective EMC screening for a DIPLOMAT Caseframe the following items are required.

CONTENTS OF KIT

Description	Qty	Material/Finish
Plain tie bars	2	Aluminium alloy extrusion
Tapped strips	2	Mild steel
Rear closing angles	2	Aluminium alloy extrusion
Top and bottom covers	2	0,9mm Aluminium sheet
Fixing screws		

EMC CONVERSION KITS

For 324mm deep caseframes – 160mm PCBs only.

NOTE: In keeping with Verotec's policy of constant product improvement, the cover design has been improved and differs slightly from the cover shown in the photograph. Finger Strips must be ordered separately.

ORDERING INFORMATION

Height	Type	Order code
3U	Unventilated	950-240574
	Ventilated	950-240575
6U	Unventilated	950-240576
	Ventilated	950-240577

EMC CONVERSION KITS

For 444mm deep caseframes – 160mm or 220mm PCBs.

ORDERING INFORMATION

Height	Type	Order code
3U	Unventilated	950-240584
	Ventilated	950-240585
6U	Unventilated	950-240587
	Ventilated	950-240588

EMC CONVERSION KITS

For 564mm deep caseframes – 160mm, 220mm, 280mm or 340mm PCBs.

ORDERING INFORMATION

Height	Type	Order code
6U	Unventilated	950-240562
	Ventilated	950-240563

The EMC conversion kits are also available in their constituent parts.

SIDE CLOSING PLATES These are fitted at the front and rear in conjunction with the tie bars. EMC Beryllium copper fingers are recommended to maintain the shield between the caseframe and EMC panels.

RFI FINGER STRIP Supplied in lengths of 381mm consisting of 60 fingers. The fingers are self adhesive for easy application and replacement in the field. They can be cut using a sharp pair of scissors, taking care to avoid crushing during cutting.

REAR MOUNTING TIE BARS Two should be ordered per caseframe together with two tapped strips and eight fixing screws. Fixing screws are sold in packs of 100 pieces.

TOP AND BOTTOM COVERS One top and bottom cover kit should be ordered per caseframe. Each kit contains two covers and necessary fixing screws.



EMC conversion kits



Side closing plates

ORDERING INFORMATION

Description		Order code
Side closing plates Height 3U	Pack of 2	950-226126
Side closing plates Height 6U	Pack of 2	950-226127
RFI Finger strip	Pack of 1 (60 fingers, 381mm long)	930-238243
Top and base covers	Plain	Vented
Card depth 160	950-240557	950-240553
Card depth 220	950-240559	950-240554
Card depth 340	950-240558	950-240555
Plain tie bar	Pack of 1	950-221909
Tapped strip	Pack of 1	950-202001
Tie bar fixing screws – pack of 100		950-202734

EMC INDIVIDUAL FRONT PANELS

Providing backwards compatibility with existing front panels or where the use of injector/ extractor handles is not necessary or desirable.

- Latest industry standard front panel geometry
- Stainless steel fingers
- Clear chromate finish or with polyester overlays
- Full custom service available

The channel section provides good mechanical strength. The inserts in these kits are metal for maximum conductivity. Up to 8HP wide, panels have two fixing screws, 10 and 12HP have four. We offer a comprehensive customising service in front panels and overlays.

Contents of kit

Description	Qty	Material/Finish
1 x front panel	1	Al extrusion, Clear chromate
1 x overlay (where fitted)	1	0,2mm polyester, Light grey
		RAL7035
1 x EMC finger strip	1	Stainless steel
Handles	1 on 3U, 2 on 6U	Luranyl 2452/1 or equivalent
	Black	
Handle ident	1 on 3U, 2 on 6U	Al alloy 1,5mm , Clear
	anodised	or 1,25mm (with overlay)

Fixings and assembly instructions

ORDERING INFORMATION

Nominal dimensions		Order Code	Order Code
Height	Width	Chromate finish	With overlay
3U	4HP	951-263098	951-263199
	5HP	951-263102	951-263200
	6HP	951-263104	951-263201
	8HP	951-263108	951-263202
	10HP	951-263794	951-263796
	12HP	951-263110	951-263203
6U	4HP	951-263099	951-263219
	5HP	951-263103	951-263220
	6HP	951-263105	951-263221
	8HP	951-263109	951-263222
	10HP	951-263795	951-263797
	12HP	951-263111	951-263223



EMC front panels



KM6-RF Front Panels - fixed handles

OVERALL CLOSING PANELS

These full width (84HP) closing panels can be used at the front or rear of the subrack and make contact with the end plates and tie bars as described below.

- Type 1** which is secured by twelve captive screws and is available for installations where access is seldom necessary. Contact to the end plates is achieved using beryllium copper fingers.
- Type 2** is secured by four captive screws only, relying on beryllium copper fingers to maintain contact on all four edges.
- Type 3** is a horizontally hinged panel which relies almost entirely on beryllium copper fingers for contact on all four edges, having only two captive screws.
A special finger strip is provided with the kit for the bottom flange only.
- Types 2 and 3** are particularly useful in situations where frequent access is likely to be required.

CONTENTS OF KIT

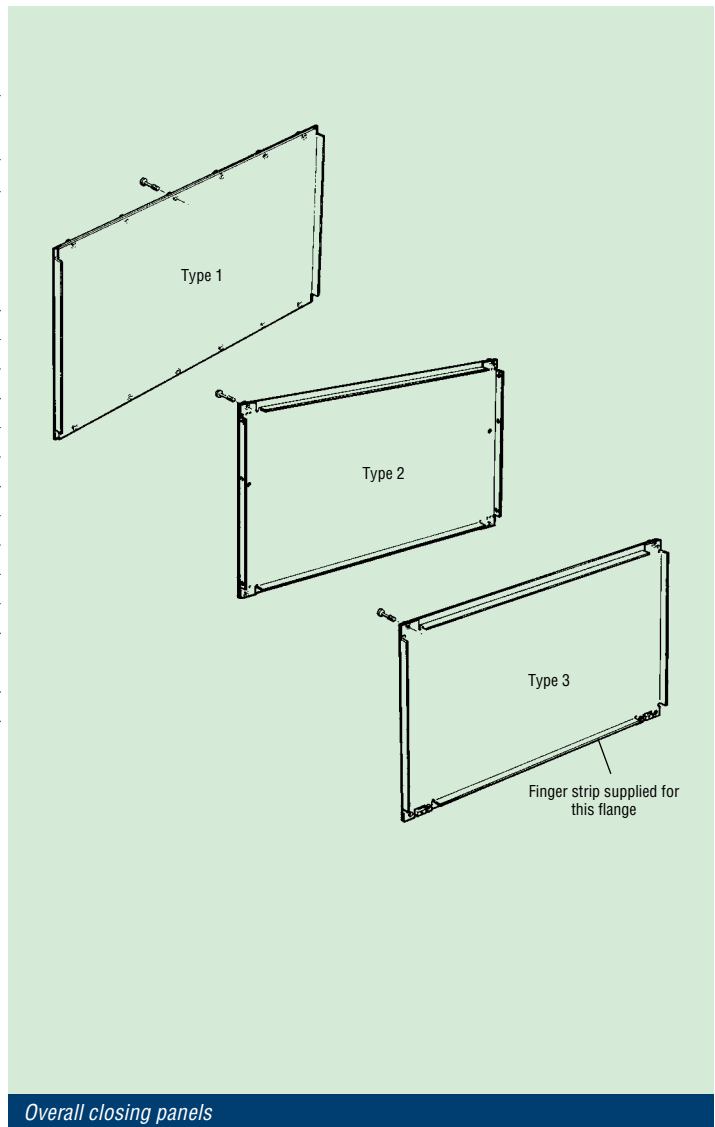
Description	Finish
Panel inc. fixings	Facia panel etch and clear anodise, inner panel conductive clear chromate
Handles and idents (Type 2 only)	

ORDERING INFORMATION

Description: Overall closing panels				
Type	Qty	Width	Height	Order code
1	1	84HP	3U	950-202694
			6U	950-202695
			9U	950-202696
2	1	84HP	3U	951-242957
			6U	951-242958
			9U	951-242959
3	1	84HP	3U	951-242960
			4U	951-259284
			6U	951-242961
			7U	951-259285
			9U	951-242962
Description				Ordercode
BeCu RFI finger strip (1 strip, 60 fingers, 381mm)				930-238243



Individual EMC panels



Overall closing panels

TRANSPARENT DOORS

This unique door design provides an attractive and secure facia to the DIPLOMAT caseframe. The construction consists of formed acrylic, two extrusions, corner mouldings and a lock mechanism, producing a strong and lightweight door which is easily fitted to the caseframe. The door allows sufficient room from the front panel to the inside door surface for mounting large front panel components. The front panel clearance is approximately 44mm.

Flammability rating - BS476 class 3/UL94 HB

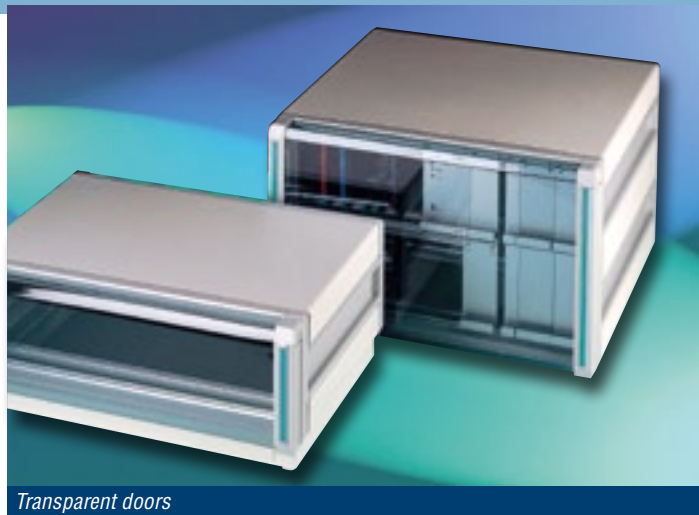
Contents of kit

Description	Qty	Material/Finish
Door assembly	1	3mm Acrylic (tint 901) with mid-grey ABS corner moulding (BS4800-00A05)
Lock trim	1	Aluminium extrusion – satin anodised
Plain trim	1	Aluminium extrusion – satin anodised
Set of keys	1	
Set of fixings	1	

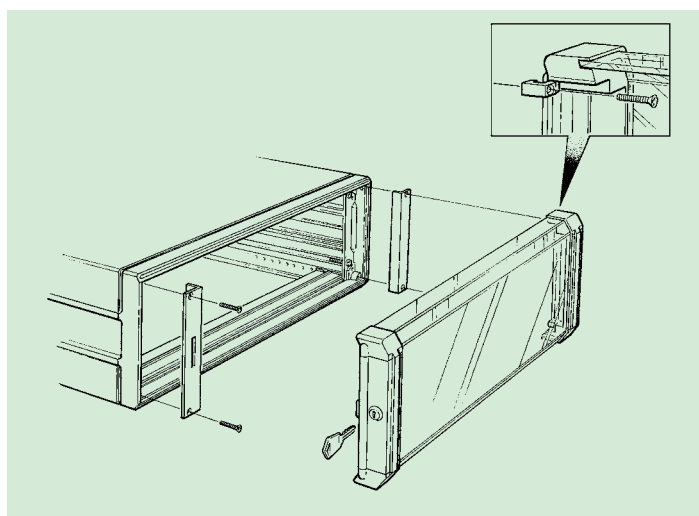
Ordering information

Height	Width	Hinge type	Order code
3U	42HP	Horizontal	717-236834
	60HP	Horizontal	717-236835
	84HP	Horizontal	717-236836
	84HP	Vertical	717-240996
6U	60HP	Vertical	717-236837
	84HP	Vertical	717-236838

Note: Front panel to inside of door dimension is 44mm.



Transparent doors



FEATURE FRONT PANELS

Manufactured in 3mm etched and anodised aluminium with a high quality surface finish, these panels provide a clean and very attractive frontal appearance.

Suitable for use on both the front and rear of the case, they are fitted into the bezel in place of the trims and in front of subrack tie bars. Sufficient room is available for KM6-II plug-in units to be fitted behind these panels.

Contents of kit

Description	Qty	Material/Finish
Panel	1	3mm Aluminium, satin anodised
Fixing screws	4	

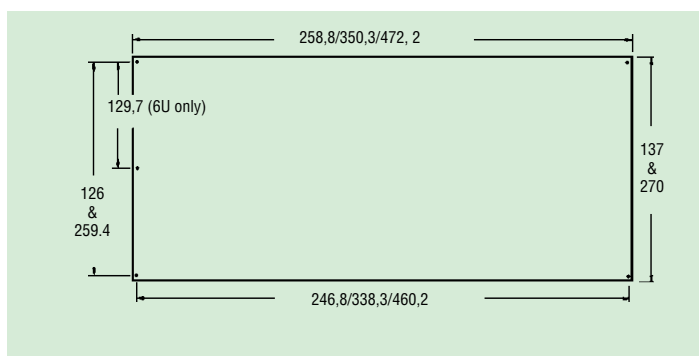
Ordering information

Description: Feature front panels

Height	Width	Order code
3U	42HP	517-200543
	60HP	517-200544
	84HP	517-200545
6U	60HP	517-200546
	84HP	517-200547



Feature front panels



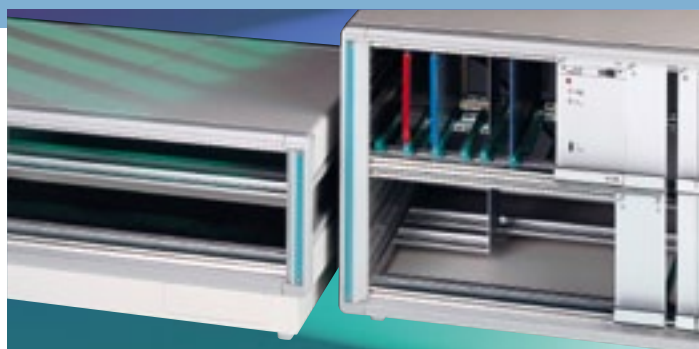
FRONT AND REAR BEZEL TRIMS

In order to maintain a clean and attractive appearance on the front of the DIPLOMAT caseframes highlighted bezel trims can be easily fixed to the unit. These are available in highlighted pantone green and plain versions. Rear fixing provides security and front fixing ease of access.

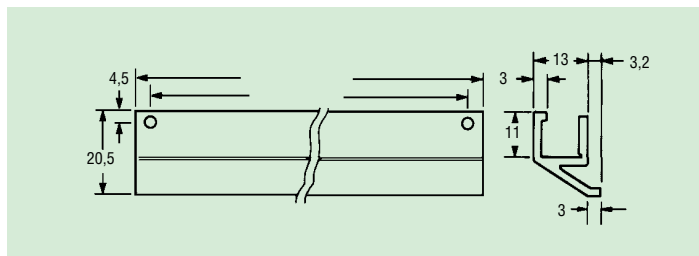
ORDERING INFORMATION

Description	Order code
Trims 3U front fixing - highlighted	717-238518
Trims 6U front fixing - highlighted	717-238519
Trims 3U rear fixing - plain	717-238644
Trims 6U rear fixing - plain	717-238645

Note: Two versions are available, front fixing trims with fixing screws showing and rear fixing trim with concealed fixing screws. Both can be used at the front or the rear of the unit.



Vertical highlight trim



HEAVY DUTY CARRY HANDLE – 3U CASES ONLY

This heavy duty handle is designed to visually coordinate with the DIPLOMAT cases. It is suitable for 3U cases and will accept loads of up to 300N. The handle has a press button mechanism which locks in increments of 30°. This allows the cases to be easily carried or tilted on a work surface.

CONTENTS OF KIT

Description	Qty	Material/Finish
Side arms	2	Polycarbonate, mid grey BS4800-00-A05
Cross bar	1	Aluminium alloy etch and clear anodise
Location mouldings	2	Polycarbonate, mid grey BS4800-00-A05
Fixing screws		

ORDERING INFORMATION

Description	Order code
Carry handles for 42HP wide case	517-201701
Carry handles for 60 HP wide case	517-201702
Carry handles for 84 HP wide case	517-201703



Heavy duty carry handle

EARTH CONTINUITY KIT

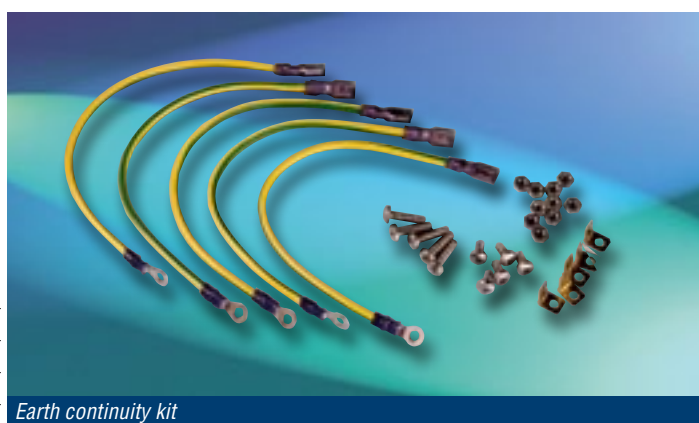
The case fixing screws are designed to provide continuity in the frame when tightened; however, it is recommended that all units are fitted with the earth continuity kit. This provides all the cables and fixings required to give complete earth continuity throughout the case. This single kit is suitable for all sizes of DIPLOMAT cases and caseframes.

CONTENTS OF KIT

Description	Qty
Earthing leads	5
Bolt-on spade connector	5
Earth bonding screw	5
M4 Pan head screw x 6LG DIN	5
M4 Hex nut (thin)	10
Instructions leaflet	1

Ordering information

Description	Order code
DIPLOMAT earth continuity kit	60-54598



Earth continuity kit

STEEL REAR PANELS

For use at the rear of the unit, these panels provide ventilation and mounting holes for the cable tidy.

CONTENTS OF KIT

Description	Qty	Material/Finish
Panel	1	0.9mm Zintec steel, colour mid grey BS4800-00A05
Fixing screws	4	

ORDERING INFORMATION

Description: Steel rear panels

Height	Width	Case type	Order code
3U	42HP	Horizontal	717-236560
	60HP	Horizontal	717-236561
	84HP	Horizontal	717-238546
	42HP	Vertical, vented	717-238693
	60HP	Vertical, vented	717-238694
	84HP	Vertical, vented	717-238695
6U	60HP	Horizontal	717-238547
	84HP	Horizontal	717-238548

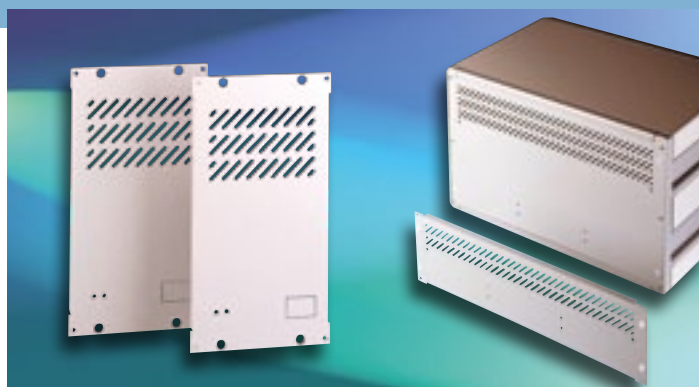
REAR FAN PANELS – Without fans fitted

Available as alternatives to the steel rear panels, these provide mounting positions for cooling fans. Two positions are provided on 6U versions and a single central position is provided on the 3U version. Either DC or AC 120mm square fans may be used.

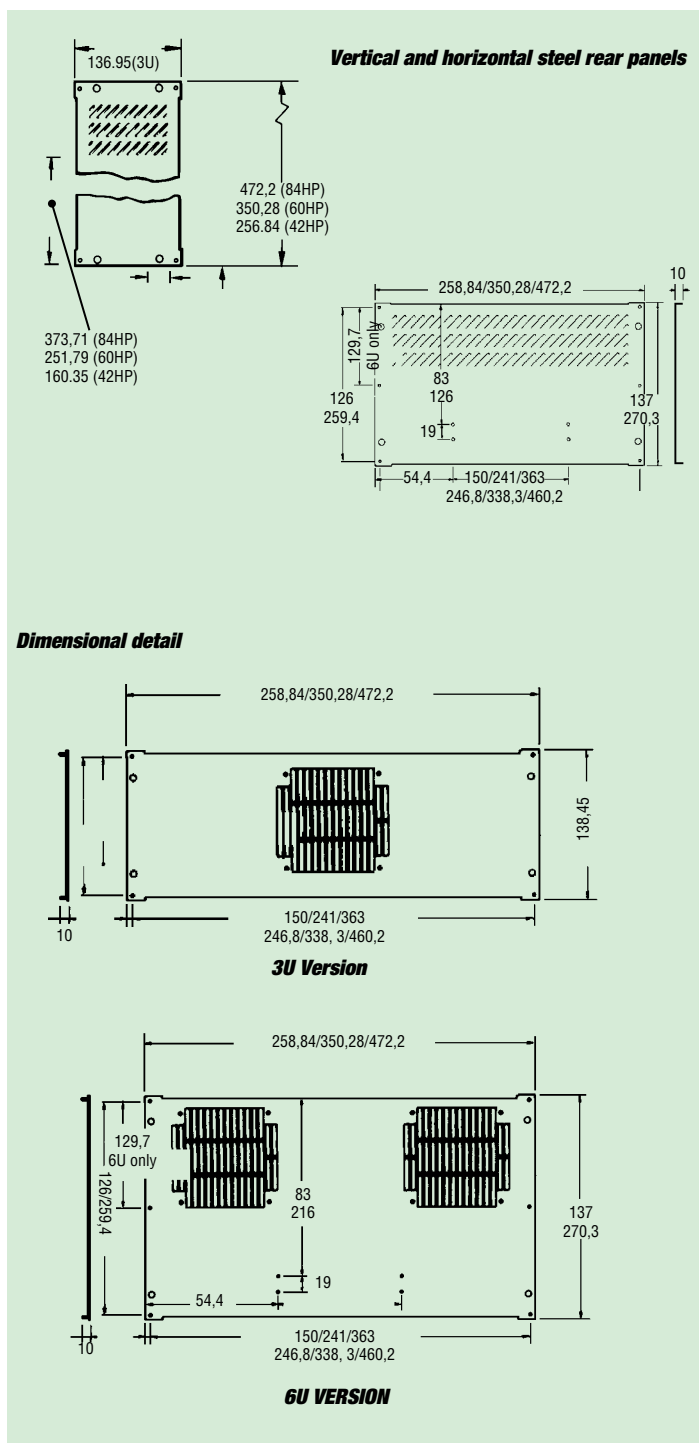
ORDERING INFORMATION

Description: Rear fan panel without fans fitted

Height	Width	Case type	Order code
3U	42HP	Vertical	717-238696
	60HP	Vertical	717-238697
	84HP	Vertical	717-238698
	84HP	Horizontal	717-236878
6U	84HP	Horizontal	717-236879



Vertical and horizontal steel rear panels



FAN PANEL ACCESSORIES

ORDERING INFORMATION

Description	Order code
120mm 220V AC 50Hz fan	28-238116
80mm 220V AC 50Hz fan	28-42355
120mm Finger guard	28-202490
80mm Finger guard	28-42366
Fan fixing kit	28-43872
Fan connection lead	28-241569



Fan panel accessories

REAR CABLE TIDY – 10½" AND 19" COMPATIBLE

The rear cable tidy allows power cables to be conveniently and tidily stored. It is supplied as a kit of two mouldings which are attached directly to the pre-punched rear panels (both types).

ORDERING INFORMATION

Description	Order code
Rear cable tidy kit	517-203357



Rear cable tidy

BUMP DOWN FEET – 3U CASES ONLY

This useful 'Bump down' foot accessory allows portable instruments to be placed safely on rugged surfaces without causing damage to the unit itself. The foot assembly also acts as a cable wrap to conveniently store power cables.

Access to the DIPLOMAT interior can be gained via securing screws in the foot moulding, which when unscrewed will release the top and base covers. These are suitable for 3U units only.

CONTENTS OF KIT

Description	Qty	Material/Finish
Set of mouldings	1	Polycarbonate, mid grey BS4800-00-A05
Rubber inserts	4	Rubber, black
Support brackets	2	2mm steel, mid grey BS4800-00-A05
Fixing screws	4	

ORDERING INFORMATION

Description	Order code
Bump down feet	517-202632



Bump down feet

KM6-II FRONT TIE BARS

KM6-II front tie bars feature a screw fixing system using a unique dowel-screw arrangement which ensures accurate location and subrack rigidity. An additional slot is provided which, when fitted with a tapped strip, enables pcb and module guides to be secured using M2,5 x 5mm screws, thereby offering greater security and strength (see figure 8).

Provision is also made for the fitting of dust/EMC covers, without the need for additional seals, whilst still maintaining a high level of EMC screening.

Normal front extrusions have slot identification printed along their length to aid guide location. Top versions also have a printed ident on the front face for panel location.

In addition to the normal front extrusion, there are three other types:

- PLAIN** which has no guide location holes; this extrusion is included in EMC conversion kits and can also be used for just attaching additional panels (e.g. for rear socket mounting).
- LIPLESS** which has normal guide location holes but offers two facilities; if used as a height dividing extrusion, it is possible to use overall front panels (see figure 6); it will also fit within an EMC screen, permitting the recessing of cards (see figure 7).
- INJECTOR/EJECTOR** which is a modified normal front extrusion with an added feature which provides the operating surface for the injection of pcb's. It should be noted that this feature reduces the vertical front aperture to 105,9mm (on a 3U).

These extrusions are supplied in lengths of 84HP and can easily be cut to length to suit other width requirements. These tie bars are not silk screen printed.

CONTENTS OF KIT

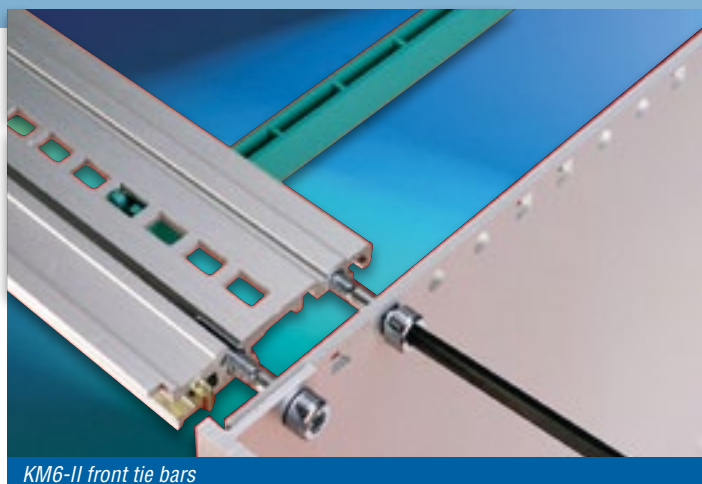
Item/Description	Material/Finish
1 tie bar	Aluminium alloy BS 14746063T6 conductive clear chromate

ORDERING INFORMATION

Description	Qty.	Order code
24HP Tie bar - top front	1	950-202796
24HP Tie bar - bottom front	1	950-202795
42HP Tie bar - top front	1	950-202736
42HP Tie bar - bottom front	1	950-202735
60HP Tie bar - top front	1	950-202743
60HP Tie bar - bottom front	1	950-202742
60HP Tie bar - top front	1	950-202644
60HP Tie bar - bottom front	1	950-202643
84HP Plain front tie bar	1	950-221909
84HP Lipless front tie bar	1	950-233073
84HP Injector/ejector front tie bar	1	951-232445

For tapped strips see Page 41

For fixings see Page 48



KM6-II front tie bars

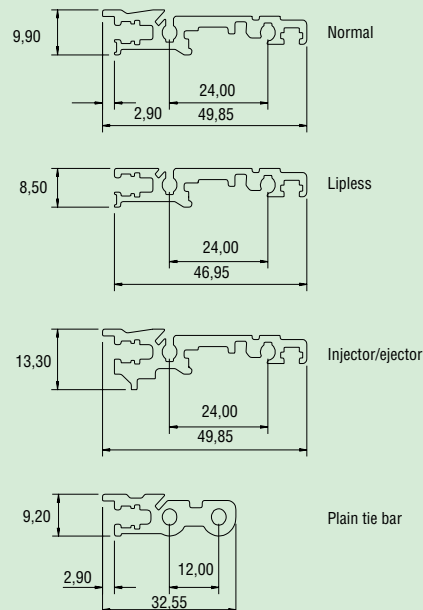


Figure 6

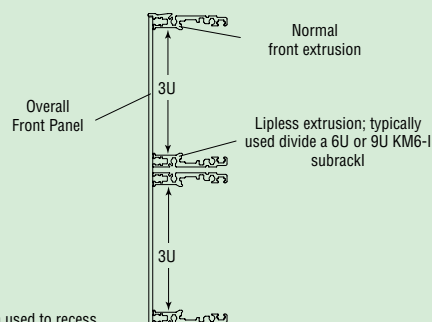


Figure 7

Lipless front extrusion used to recess PCB's in a shielded KM6-II

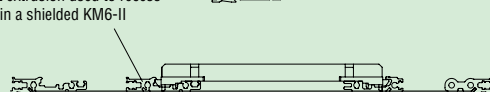
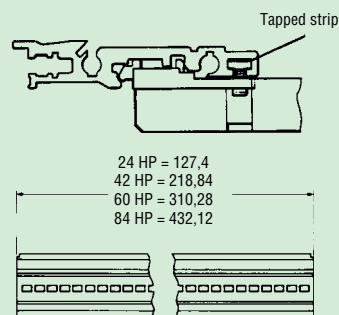


Figure 8

Screw retention of guides in a Universal Subrack



TOP AND BOTTOM REAR TIE BARS – BACKPLANE MOUNTING

KM6-II rear tie bars adopt the same positive screw fixing method as the front ties bars (refer to page 26). Once fitted with a tapped strip and the appropriate conductive or insulating spacer (to maintain the correct connector geometry), these tie bars act as supports for the top and bottom of a backplane.

Top and bottom rear tie bars are supplied singly.

Backplane tie bars can be converted to DIN 41612 by means of a connector mounting frame (see page 31).

CONTENTS OF KIT

Description	Qty	Material/Finish
Tie bar	1	Aluminium alloy BS 14746063T6, conductive clear chromate

ORDERING INFORMATION

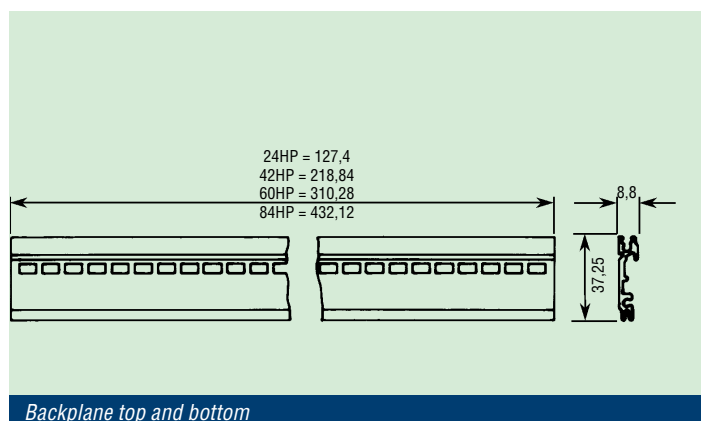
Rear Tie Bars	Backplane mounting	Qty.	Order code
24HP	Top and bottom	1	950-202797
42HP	Top and bottom	1	950-202737
60HP	Top and bottom	1	950-202744
84HP	Top and bottom	1	950-201276

For tapped strips see Page 41, DIN41612 conversion and backplane spacer strips see Page 42.

For fixings see Pages 48



Backplane top and bottom tie bar



Backplane top and bottom

MID REAR TIE BARS – BACKPLANE MOUNTING

When fitted with tapped strips these tie bars are used as mid-rear backplane mountings. They can also be used to fit a 3U backplane into a 6U, or greater, subrack.

In order to maintain correct connector geometry it is necessary to fit a spacer, either conductive or insulating, between extrusion and motherboard/backplane.

The centre rear tie bar comprises a two-part extrusion kit and a facility is provided for fitting a forward facing tapped strip if required.

Backplane tie bars can be converted to DIN 41612 by means of a connector mounting frame (see page 42).

CONTENTS OF KIT

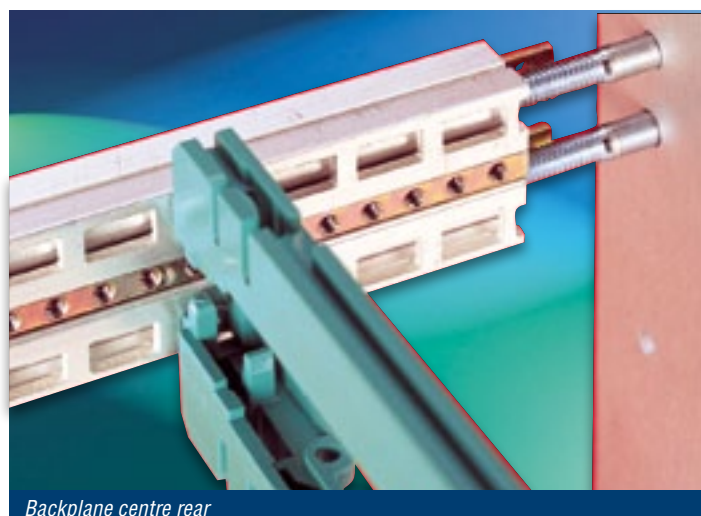
Description	Qty	Material/Finish
Tie bar	1	Aluminium alloy BS 14746063T6, conductive clear chromate

ORDERING INFORMATION

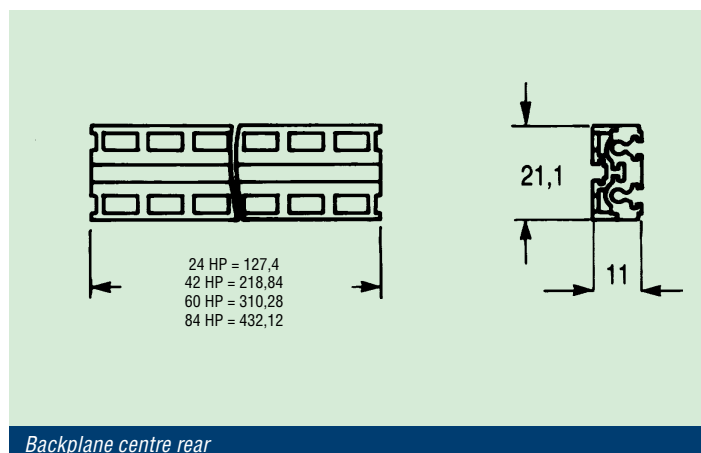
Description: Rear Tie Bars - backplane mounting	Width	Location	Qty.	Order code
	24HP	Centre	1	950-202798
	42HP	Centre	1	950-202738
	60HP	Centre	1	950-202745
	84HP	Centre	1	950-201277

For tapped strips see Page 41, DIN41612 conversion and backplane spacer strips see Page 42.

For fixings see Page 48



Backplane centre rear



Backplane centre rear

TOP AND BOTTOM REAR TIE BARS – DIN 41612

CONNECTOR MOUNTING

KM6-II Top and bottom DIN 41612 connector mounting tie bars are pre-tapped with M2,5 holes on a 1HP pitch. These tie bars are printed with connector location idents to aid connector assembly, and are not handed.

CONTENTS OF KIT

Description	Qty	Material/Finish
Tie bar	1	Aluminium alloy BS 14746063T6, conductive clear chromate

ORDERING INFORMATION

Rear Tie Bars	DIN41612 Connector mounting	Qty.	Order code
84HP	Top and bottom	1	950-229781

For tapped strips see below. For fixings see Page 48

MID REAR TIE BARS – DIN 41612 CONNECTOR MOUNTING

For DIN 41612 connector mounting the tie bar is pre-tapped M2.5 on a 1HP pitch. These tie bars are printed with connector location idents, but are not handed.

CONTENTS OF KIT

Description	Qty	Material/Finish
Tie bar	1	Aluminium alloy BS 14746063T6, conductive clear chromate

ORDERING INFORMATION

Description: Rear Tie Bars - DIN 41612 connector mounting	Width	Location	Qty.	Order code
84HP	Top and bottom		1	950-229784

For fixings see Page 48

TAPPED STRIPS

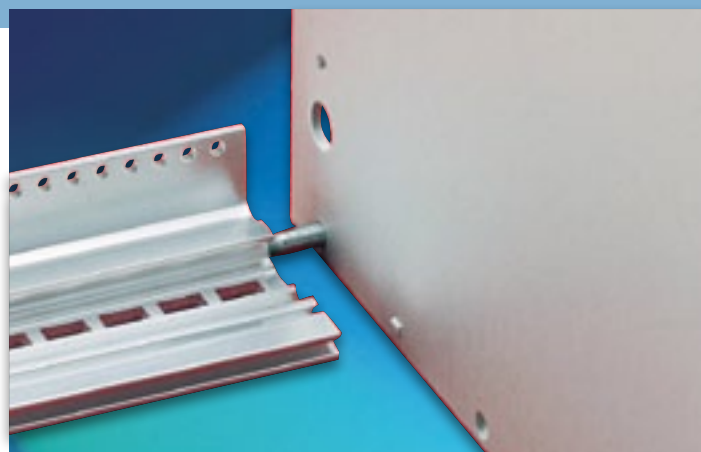
Tapped M2,5 holes on a pitch of 1HP, these strips are used for fixing front panels, backplanes, or as an option for chassis plates. As an alternative to tapped strips, a slide nut suitable for use in front tie bars only can be used where a small number of locations are required.

CONTENTS OF KIT

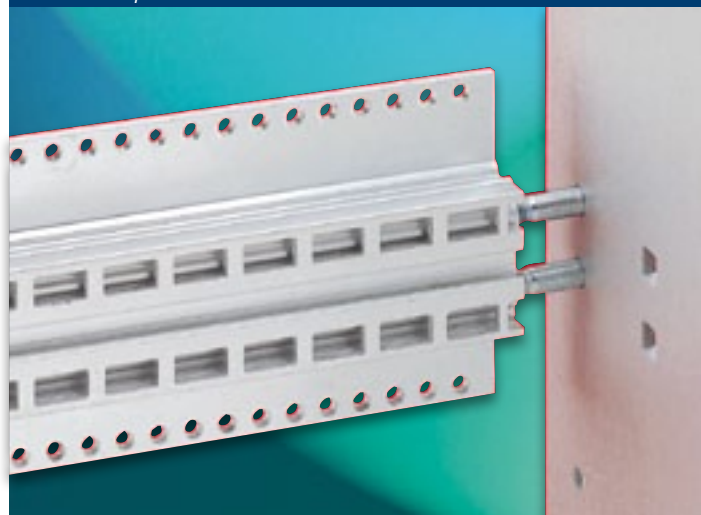
Description	Qty	Material/Finish
Tapped strip	1	Mild steel zinc and colour passivate

ORDERING INFORMATION

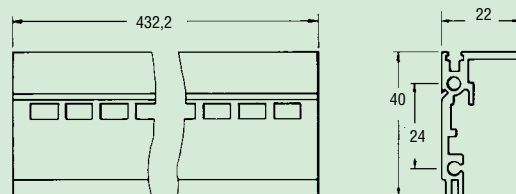
Description	Qty.	Order code
24HP Tapped strip	1	950-202799
42HP Tapped strip	1	950-202739
60HP Tapped strip	1	950-202740
84HP Tapped strip	1	950-202001
Slide nut	10	124-30499



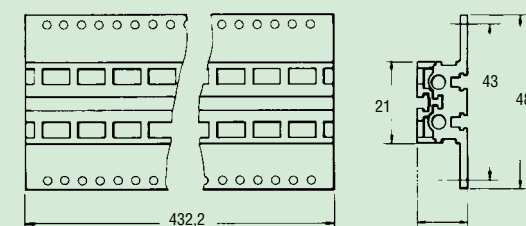
DIN 41612 top and bottom tie bar



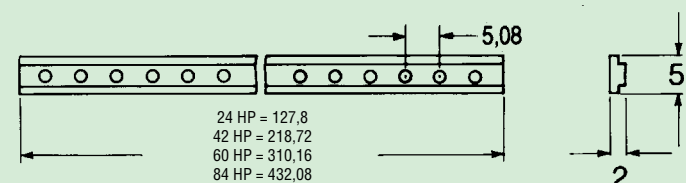
DIN 41612 centre rear



DIN 41612 top and bottom



DIN 41612 centre rear



Tapped strip

DIN 41612 CONNECTOR MOUNTING FRAME

- Converts backplane extrusions to DIN 41612 mounting
- Separate assembly and wiring possible
- 3U height, choice of three widths
- Conductive finish

This frame is supplied as a kit comprising 2 aluminium extrusions with M2,5 holes on a 1HP pitch, two steel end plates and fixings.

ORDERING INFORMATION

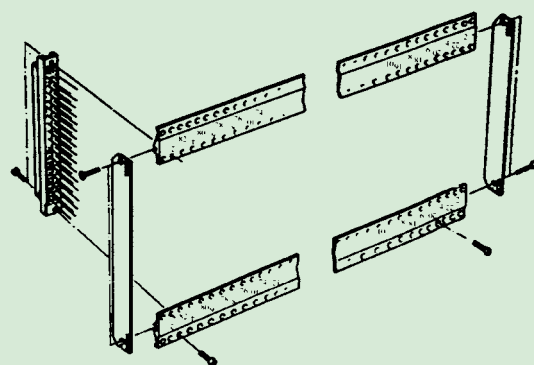
Description	Qty.	Order code
24HP DIN 41612 connector mounting frame	1	950-34247
42HP DIN 41612 connector mounting frame	1	950-34246
84HP DIN 41612 connector mounting frame	1	950-34244

DIN 41612 CONNECTOR MOUNTING EXTRUSIONS

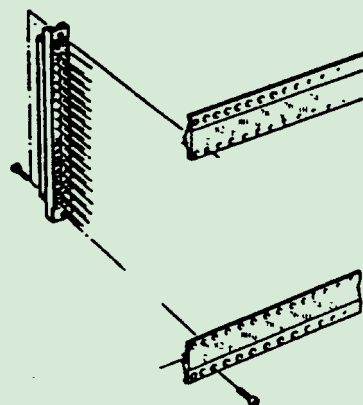
As an alternative to the mounting frame the horizontal extrusions are available in separate kits. A 6HP version is of particular use for mounting one connector to mate with a power supply plug-in units. There is also a version at 84HP width. In both cases, the kit comprises two extrusions and fixings.

ORDERING INFORMATION

Description	Qty.	Order code
6HP horizontal extrusions separate kits	1	950-249491
84HP horizontal extrusions separate kits	1	950-249489



DIN 41612 connector mounting frame



DIN 41612 connector mounting extrusions

BACKPLANE SPACER STRIPS

Two types of spacer strips are available, insulating and conductive. The insulating type is available in one and two level versions, each having half shears to aid assembly. The two-level version is used on centre rear tie bars. The 84HP strips can be easily cut down for smaller widths.

The conductive strip is 42HP wide and supplied singly.

Note: If conductive spacer strips are used in 84HP sub racks please order 2 x 42HP spacer strips per tie bar.

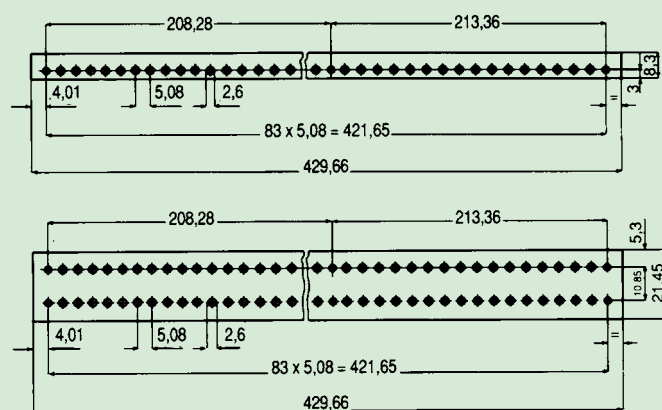
CONTENTS OF KIT

Item/Description	Material/Finish
Insulating spacer	1mm insulating/grey PVC UL94V0
Conductive	1mm MS zinc and passivate

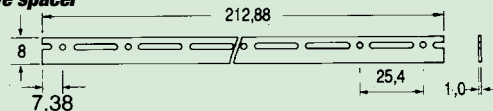
ORDERING INFORMATION

Description	Qty.	Order code
Insulating spacer single level	1	950-10014
Insulating spacer two level	1	950-10015
Conductive spacer 42HP only	1	173-60788

Insulating spacers



Conductive spacer



Backplane spacer strips

KM6-II GUIDES

ONE PART GUIDES

- Type 1 PCB** For Eurocards of 1,6mm thickness, either 100mm, 160mm or 220mm long. Compatible with grounding clip, see page 44
- Type 2 PCB** For Eurocards of 2,4mm thickness, either 160mm or 220mm long. Not compatible with grounding clip.
- Type 3 PIU** Plug-in unit (piu) type for cards 111,76 or 245,1mm height, 1,6mm thickness, 160 or 220mm long.
- Type 4 PCB** For Eurocards of 1,6mm thickness, 220mm long, this guide will fit over intermediate extrusions, permitting mixing of pcb depths. Compatible with grounding clip. See page 44.

CONTENTS OF KIT

Description	Material/Finish
Types 1, 3, 4	Luranyl 2452/1 or equivalent, green
Types 2	Luranyl 2452/1 or equivalent, black

ORDERING INFORMATION

Description: KM6-II Guides - One part

Type	Application	Board Length	Qty.	Order code
1	PCB 1,6mm thick	100 mm	10	950-242850
		160 mm	10	950-232662
		160 mm	1000	956-243239
		220 mm	10	950-232663
		220 mm	1000	956-243240
2	PCB 2,4mm thick	160 mm	10	173-232666
		220 mm	10	173-232667
3	Plug-in-unit	160 mm	10	950-232664
		220 mm	10	950-232665
4	Low profile PCB	220 mm	10	950-232668

THREE PART GUIDES

- Type 5** Aluminium centre section, with plastic slide in guide section, for 280mm, 340mm or 400mm lengths, 1,6mm thickness.
- Order separately: End feet for pcb or piu.
- Type 6** Three part guide end feet for Eurocards of 1,6mm thickness.
- Type 8** Three part guide end feet for piu of 1,6mm thickness.

CONTENTS OF KIT

Item/Description	Material/Finish
Type 5	Al extrusion, anodised, plastic side-in section
	Noryl 2452/1a, black
Type 6 and 8	Noryl 2452/1a, green

Luranyl 2452/1 is a UL94 V1 rated material with a continuous rating of 105°C

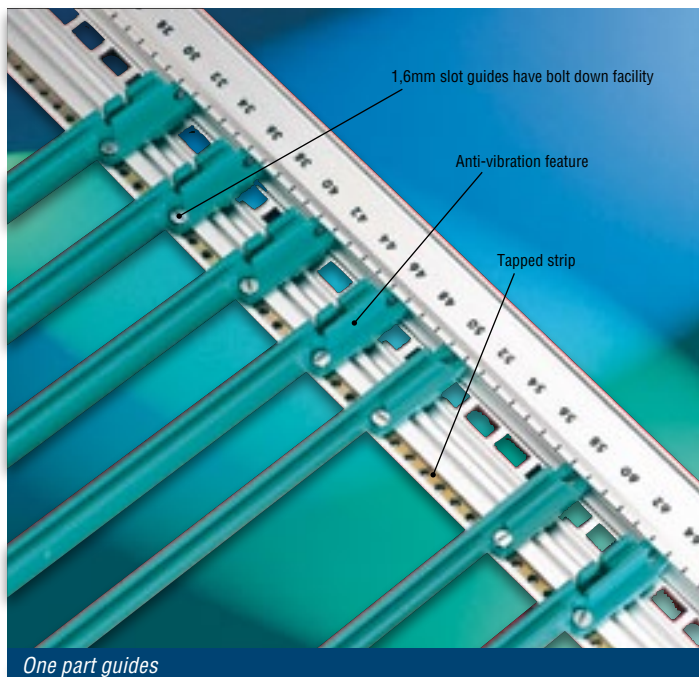
ORDERING INFORMATION

Description: KM6-II Guides - Three part

Type	Application	Board Length	Qty.	Order code
5	PCB 1,6mm thick	280 mm	10	950-276108
		340 mm	10	950-276109
		400 mm	10	950-276110
6	Guide feet, PCB 1,6mm thick		10 prs.	950-202635
8	Guide feet, PIU or PCB 1,6mm thick		10 prs.	950-202636

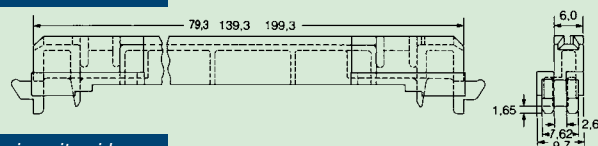


One part guides

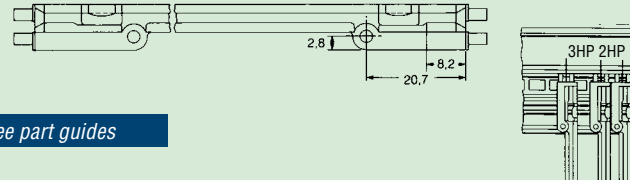
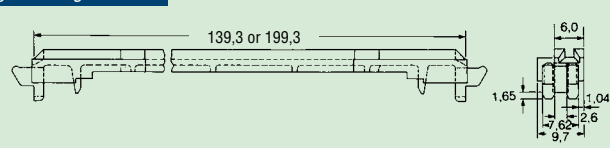


One part guides

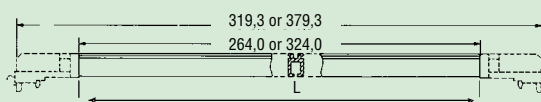
PCB Guides



Plug-in unit guides



Three part guides



Guide length 'L' Guides should be cut to pcb length minus 76mm.

PCB GROUNDING CLIP

This grounding clip can be inserted into the front or rear of 1,6mm pcb guides in KM6-II and KM6-EC subracks.

Features

- Electrostatic Protection
- Occupies 'unused' area of Eurocard
- No screws required

Contacts on the clip provide electrical continuity between a suitably equipped Eurocard and, via a spring under the clip to standard front extrusions. Pcb's can, therefore, be grounded before the engagement of connectors. The clip, which is supplied in packs of 10, fits into a 'pocket' in the guide and requires no screw fixings to maintain contact.

The modification required to the pcb takes the form of a conductive strip along the edge of the board, either on the left or right side (see illustration). The clip has been tested to IEC 950: 1986 section 2.5.11. In testing, the clip reached a steady temperature of 76 degrees C at 15A, with a resistance path of 7mΩ. A typical electrostatic discharge would be 12A for a period of 1 microsecond.

It should be noted that the clip is designed to provide a ground path for electrostatic charges, not for a power short circuit or as a ground rail.

CONTENTS OF KIT

Description	Material/Finish
Grounding clip	0,15mm spring steel plated

ORDERING INFORMATION

Description	Qty.	Order code
Grounding clip	pk 10	950-251366

POSITIVE GUIDE RETENTION – TAPPED STRIPS

All KM6-II guides, with the exception of the 2,4mm slot version, can be bolted down to a tapped strip in the front extrusion to give shock and vibration resistance.

Tapped strips (supplied singly) should be selected by subrack width.

The screw used is M2,5 x 5mm cheesehead, supplied in a packet of 100.

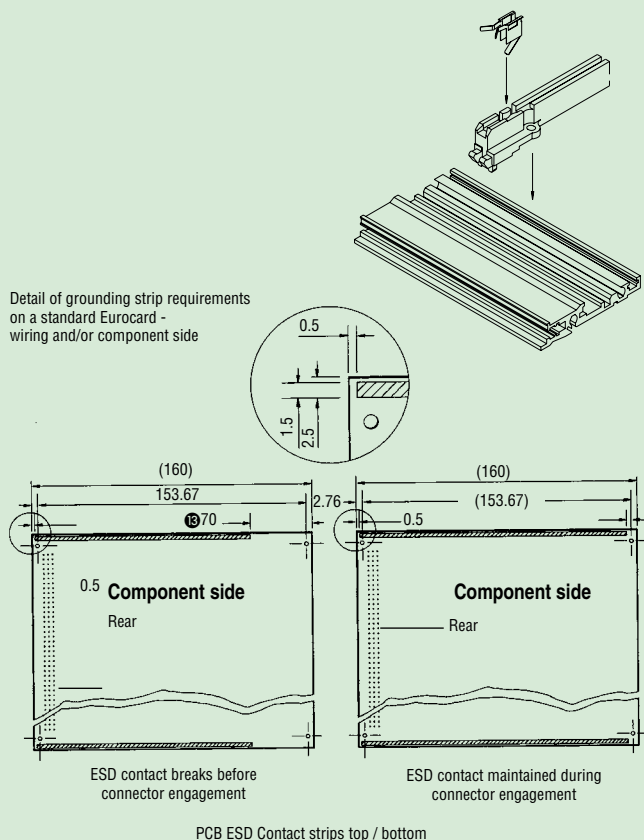
ORDERING INFORMATION

Description: Positive guide retention

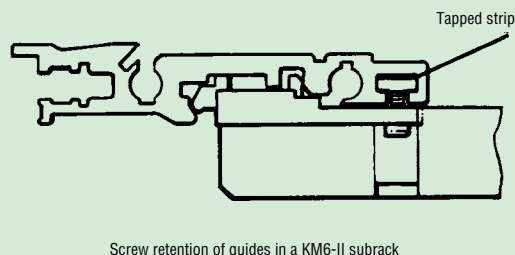
Type	Width	Qty.	Order code
Universal	24HP	1	950-202799
	42HP	1	950-202739
	60HP	1	950-202740
	84HP	1	950-202001
Security fixing screws	M2,5 x 5	100	173-202579

Note: for other widths and for divider kits, a longer strip should be cutdown to suit.

PCB Grounding clip



Positive guide retention – tapped strips



A range of moulded parts providing additional facilities for DIPLOMAT Caseframe, KM6-II and KM6-EC users.

PCB RETAINERS

Card retainers are available in two types, normal and security. The normal retainer is positioned directly in front of the guide moulding and is operated by finger pressure as illustrated to release the PCB. The security retainer is designed for extra security in vibrative environments and is operated by a unique screw arrangement.

Once clipped in position in front of a PCB guide, complete security is achieved by 3 turns anti-clockwise of the retaining screw with a screw driver.

Contents of kit

Description	Qty.	Material/Finish
PCB retainer	pk. 10	Noryl (GFN/701 code 1V) black

Ordering information

Description: PCB Retainers

Retainer Type	Order code
Normal	173-13821
Security	173-24768

PCB GUIDE NOSE

- Assists location of PCBs
- Extends existing KM6 PCB guide

The guide nose fits to standard 1,6 PCB guides, extending their length to within 5mm of the inside face of a front panel. The increased length is especially useful for locating circuit boards in sub racks which are above or below eye level. It also provides a purchase point for the operation of certain types of card ejector.

CONTENTS OF KIT

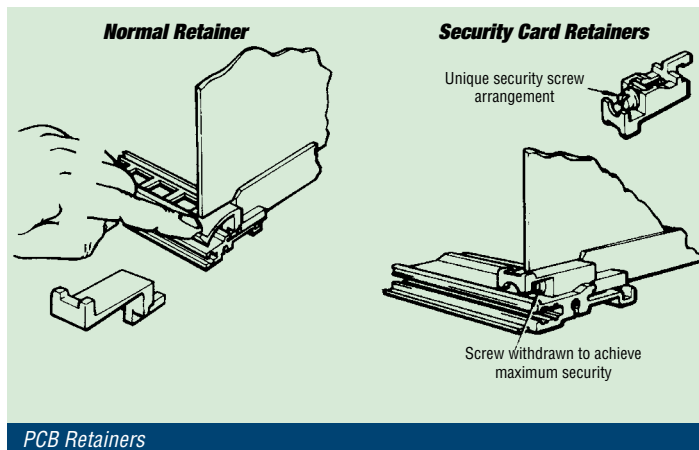
Description	Qty.	Material/Finish
PCB guide nose	pk 10 pairs	Noryl SE1, black

ORDERING INFORMATION

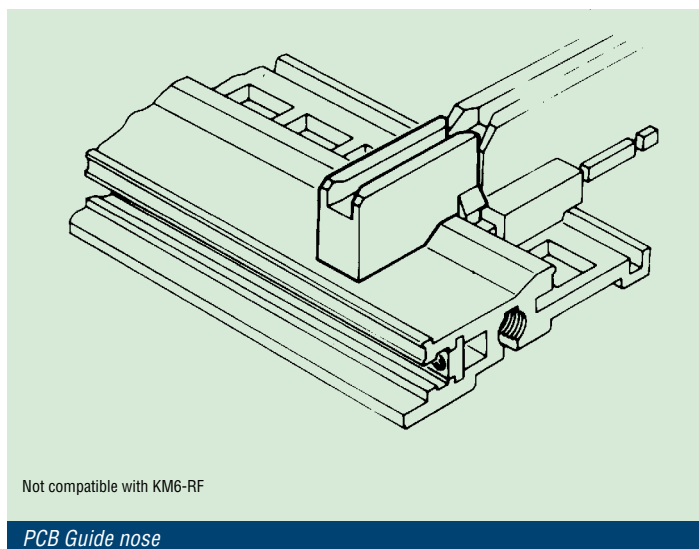
Description	Qty.	Order code
PCB guide nose	10 prs.	173-232679



PCB Accessories



PCB Retainers



Note: all accessories on this page will fit behind a normal IEC 297 front panel

PCB EJECTORS

These are designed to aid the easy removal of printed circuit boards from subracks and case frames. To remove the card, ejectors are pushed downwards and then levered against the front extrusion. The ejectors are of a size that they can be used for easy insertion on boards and at the same time offer some protection to the components of the board.

CONTENTS OF KIT

Description	Qty.	Material/Finish
PCB ejectors	pk 10	Noryl SE1, green
Fixing pins	pk10	Steel

ORDERING INFORMATION

Description	Qty.	Order code
PCB ejector	10	173-12659

PCB INJECTOR/EJECTOR

PCB's fitted with multiple DIN connectors can require very high insertion and withdrawal forces. These injector/ejectors comprise levers which fit to the PCB and saddles which are retained in front of the guide.

It is recommended that guides are screwed down where insertion forces are excessive. See page 44.

CONTENTS OF KIT

Description	Qty.	Material/Finish
PCB injector/ejector	pk 10 pairs	Glass filled nylon 66
Fixings		

ORDERING INFORMATION

Description	Qty.	Order code
PCB injector/ejector	10 pairs	950-251174

FLEXIBLE CARD HANDLES

The design of this handle allows a positive grip for card extraction by bowing out from the board when pulled. When not in use it projects less than 2,0mm outward from the card edge, thereby being compatible with KM6 system.

CONTENTS OF KIT

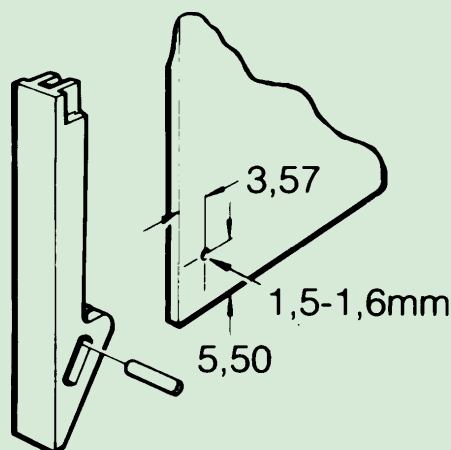
Description	Qty.	Material/Finish
Handles	pk 10	Nylon 66
Tension pins	pk 10	Steel

ORDERING INFORMATION

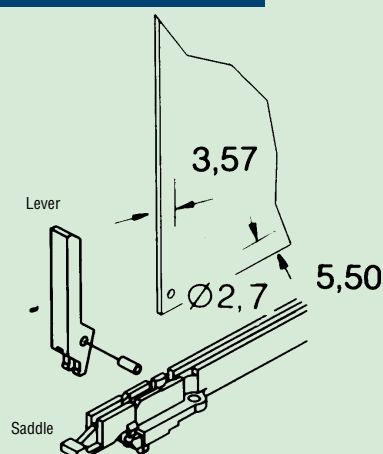
Description: Flexible card handles			
Material	Colour	Qty.	Order code
Nylon 66	Natural	10	21-1884
	Red	10	21-1885
	Green	10	21-1886
	Yellow	10	21-1887
	Black	10	21-1888
	Blue	10	21-1889

Note: all accessories on this page will fit behind a normal IEC 297 front panel

PCB Ejector

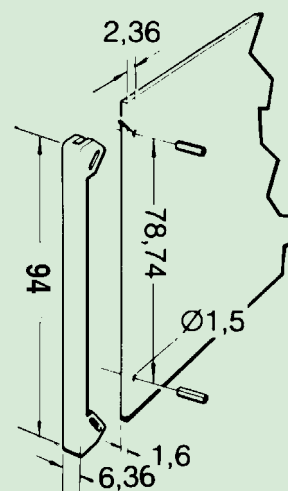


PCB Injector/Ejector



Not compatible with KM6-RF subracks

Flexible card handle



DIVIDER KITS

For use with 6U x 84HP KM6-II DIPLOMAT caseframes, these divider kits provide a useful way to mix 3U and 6U board heights within a unit. The divider section is available in different widths from 21HP to 84HP ranged from either the left hand or right hand side.



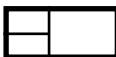
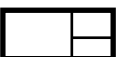

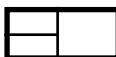

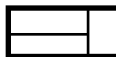
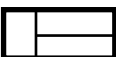
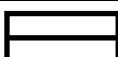
The design of the kit is such that there is no loss of front panel space. It should be noted, however, that the divider plate restricts the use of 'C' type connectors to plug-in units of 4HP width, or greater, at the position immediately to the left of the plate.

Contents of kit

Description	Qty.	Material/Finish
Front extrusions	2	Aluminium alloy BS 1474HE9TF conductive clear chromate
6U divider plate (not 84HP version)	1	1,6mm aluminium alloy BS1470NS4 1/2H conductive clear chromate
Location mouldings (not 84 HP version)	3	Luranyl 2452/1α
Tapped strips	2	Steel, zinc plated and colour passivated
Fixing screws		

6U DIVIDER KITS

Ordering information

Divider width	Order code Left hand	Order code Right hand
21HP	 950-202604	 950-202609
24HP	 950-202605	 950-202610
36HP	-	 950-202615
42HP	 950-202606	 950-202611
60HP	 950-202607	 950-202612
84HP	 950-202675	

REAR DIVIDER PLATE

Suitable for both 3U and 6U cases, this divider plate enables 160 and 220mm deep boards to be accommodated in the same case.

The plate, which is 3U or 6U high, is supplied with fixing screws.

Rear tie bars, tapped strips, backplane spacers, connector mounting frames and fixing screws should be ordered separately – refer to pages 40 – 42 and 48.

CONTENTS OF KIT

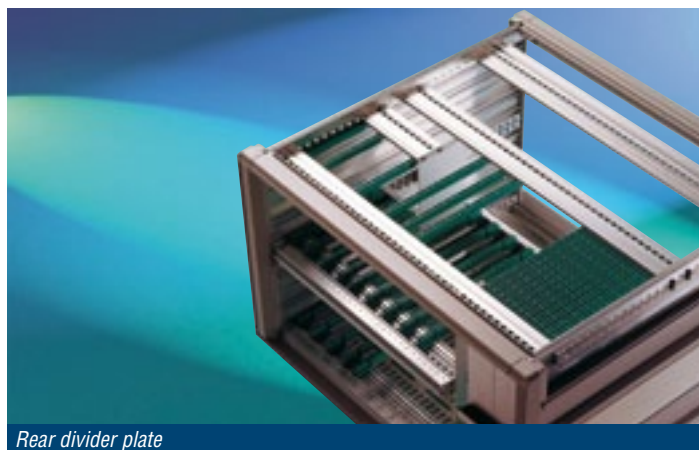
Description	Qty	Material/Finish
3U divider plate or or 6U divider plate	1	1,6mm Aluminium alloy BS1470NS ½H conductive finish
Fixing screws		

ORDERING INFORMATION

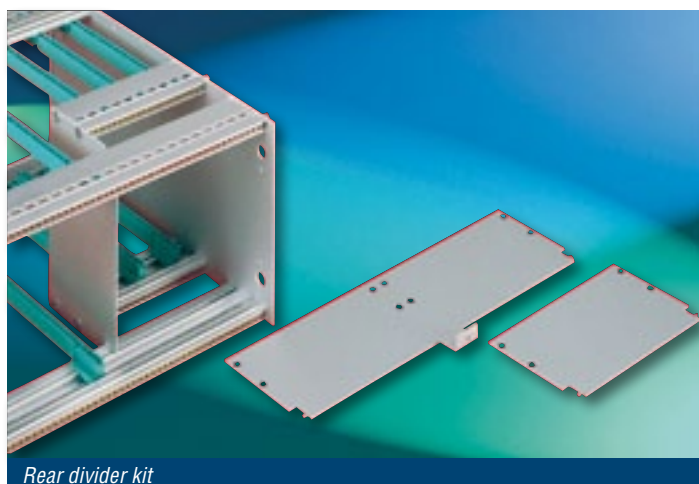
Description	Order code
3U rear divider plate	950-202623
6U rear divider plate	950-202624



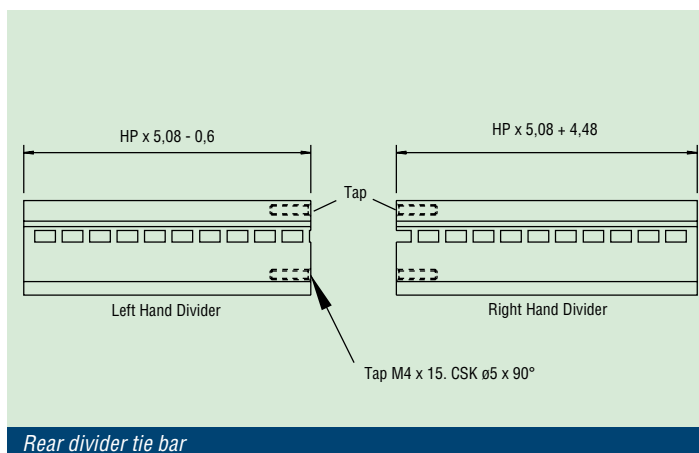
Divider kit



Rear divider plate



Rear divider kit



Rear divider tie bar

HORIZONTAL MOUNTING MODULES

This unit, which fits into a subrack like a 3U module, is actually a 6U x 20HP subrack on its side. This module permits the use of normal guides, front panels, plug-in units etc. and solves the problem of housing double Eurocards, i.e. 6U cards, in a 3U subrack, a situation which is frequently associated with modern bus systems. The horizontal mounting module offers a number of additional advantages. It can be sub-assembled separately from the main subrack, and it offers "chimney" cooling between the end plates.

Contents of kit

Description	Qty.	Material/Finish
End plates	2	2,0mm Aluminium, conductive clear chromate
Front tie bars	2	BS 1474 HE 9 TE extrusion conductive clear chromate
Rear backplane tie bars	3	BS 1474 HE 9 TE extrusion conductive clear chromate
Insulating strips	4	PVC grey UL 94.V0
Tapped strips	6	Mild steel zinc and passivate
Trim panels	2	1,0mm Al etch and clear anodise
Infill panel	1	2,5mm Al etch and clear anodise
Insulating sheet	1	Mylar 240
All fixings		

Notes

- The unit can be supported over its depth by fitting one or two plug-in guides to the main subrack directly under the horizontal module.
- In order to maintain correct connector geometry it is necessary to fit a spacer, either conductive or insulating, between the rear backplane mounting extrusions and the motherboard/backplane.

Ordering information

Description: Horizontal mounting module

Type	Depth	Qty.	Order code
Horizontal module	160mm	1	950-202971
	220mm	1	950-202972
PCB guide	160mm	Pk10	950-232662
	220mm	Pk10	950-232663

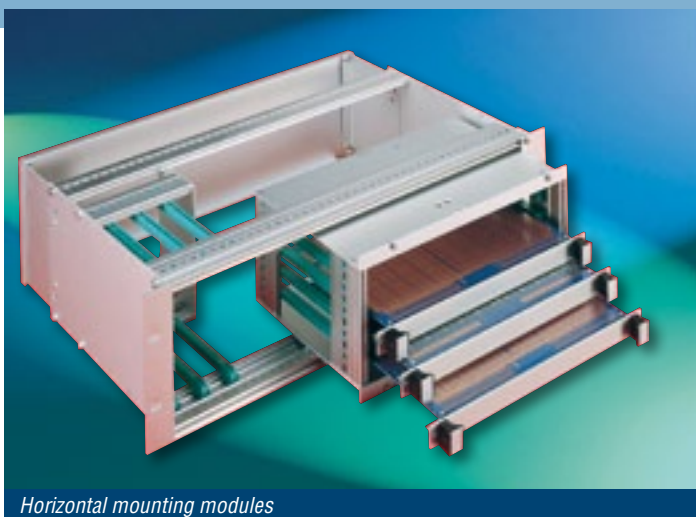
KM6-II HORIZONTAL MOUNTING MODULES – ACCESSORIES

Product	Page
DIN 41612 Connector mounting frame	42
DIN 41612 Connector mounting extrusions	42
Backplane insulation/conductive spacers	42
PCB or Module guides (1 or 3 part types)	43
PCB Grounding clips	44
PCB Retainers and PCB guide nose	45
PCB Ejectors and card handles	46

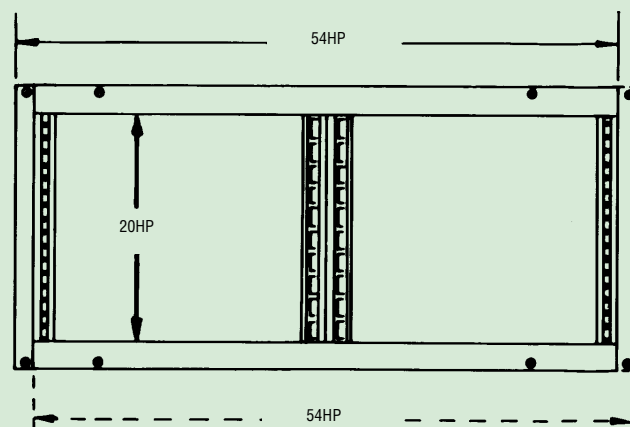
FIXINGS

Ordering information

Key	Function	Type	Qty.	Order code
①	End plate to tie bar extrusions	M4 x 25 skt cap	pk 100	950-202734
②	Connector to rear tie bar	M2,5 x 6mm	pk 100	173-12530
③	Backplane to backplane extrusion	M2,5 x 5mm	pk 100	173-202579
④	Guides to front tie bar	M2,5 x 6	pk 100	173-12530
⑤	Backplane to backplane extrusion	M2,5 x 8	pk 100	41-227257



Horizontal mounting modules



FRONT VIEW

KM6-II compatible fixings

