

Diplomat Cases & Caseframes

Diplomat – Value Added Services from Verotec...

CUSTOM DIPLOMAT CASES AND CASEFRAMES

TecServ+ is the vehicle by which Verotec delivers its value added services. These fall within 5 main categories and are described below. When it comes to Diplomat cases and caseframes, we've worked with many customers in the past to design, manufacture and help bring to market modified and custom versions of our standard products – a small selection of these are pictured below. If you have any special Diplomat requirements, please contact our sales office.

ENGINEERING SERVICES:

- Complete review of commercial, electro-mechanical, environmental and regulatory product requirements with customer.
- Import of STEP, IGES, DWG & DXF file formats
- Hechanical and electrical design using latest CAD software
- 3D Modelling to allow conceptual testing before production
- **Component selection from a vast library of parts**

MANUFACTURING SERVICES:

- Prototype / pre-production samples using small batch shop
- Modification of standard catalogue products (including machining, CNC punching, laser cutting, painting & silk-screening)
- Manufacture of custom / bespoke products (including fabrication, machining, CNC punching, plating, painting & silk-screening)
- Assembly & kitting of components
- Integration & mechanical / electrical testing of complex systems

COMPLIANCE SERVICES:

- Validation of product design and/or specification
- Advice on environment legislation (RoHS, Reach, Weee etc.)
- In-house pre-compliance testing for CE marking (Safety, EMC)
- Supply of product technical construction file
- Testing & certification of a product at an approved test house (for EMC, shock & vibration, altitude, temperature, humidity etc.)

LOGISTICAL SERVICES:

- Express manufacturing service for quick turnaround of urgent orders
- Special / bespoke packaging for safe transport of goods
- Scheduled orders (including JIT and KAN BAN systems)
- Stock holding & distribution
- Exporting (including export packaging, land/sea/air transportation, freight forwarding, customs documentation & shipping manifests)

PROJECT MANAGEMENT SERVICES:

- Initial project consultation
- Capability and feasibility study
- Estimation of project cost and leadtime
- Management of design process (specification to validation)
- Management of manufacturing process (prototype to production)
- Cost reduction programmes throughout product life cycle





Fully integrated 30, 10.5" standard Diplomat case with machined & screened front and rear panels - scientific application.



3U, 19" Standard Diplomat powder coated black - general eletronics application



3U, 19" Standard Diplomat with machined/ screened frontpanels - medical instrument application

VEROTEC Electronics Packaging

4.02

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INTRODUCTION

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, and caseframes, 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 diecasting 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.

DIPLOMAT 19" AND 10½" CASES

DIPLOMAT 19" and 10½" cases are designed for the direct mounting of subracks 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 fan plinth design has improved the cooling performance of this unit significantly, results of which are published on page 4.04 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 CASEFRAMES

DIPLOMAT caseframes are designed for the direct mounting of Eurocard 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 19" Cases



CONTENTS	PAGE
Introduction to Diplomat	4.03
Cooling performance	4.04
EMC and IP sealing effectiveness	4.05
DIPLOMAT 10.5" and 19" Cases & Accessories	4.06-4.14
Case overview and accessory index	4.06
Cases: 3U and 4U horizontal versions	4.07
Cases: 3U and 4U vertical versions	4.08
Cases: 6U and 9U horizontal versions	4.09
Case accessories: transparent doors & carry handles	4.10
Case accessories: front panels & bezel trims	4.11
Case accessories: rear panels & rear cable tidy	4.12
Case accessories: bump down feet & rear bezel trims	4.13
Case accessories: earthing kits, chassis supports & trays	4.14
DIPLOMAT Caseframes & Accessories	4.15-4.22
Caseframe introduction	4.15
Caseframe overview and accessory index	4.16
Caseframes: 3U and 6U horizontal versions	4.17
Caseframes: 3U vertical & vented plinth versions	4.18
Caseframe: Accessories: transparent doors & front panels	4.19
Caseframe: Accessories: bezel trims, carry handles & earth kits	4.20
Caseframe: Accessories: rear panels	4.21
Casaframa: Accessories: fans, rear cable tidy & hump down feat	1 22

Caseframe: Accessories: fans, rear cable tidy & bump down feet 4.22



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NEW AND IMPROVED COOLING PERFORMANCE

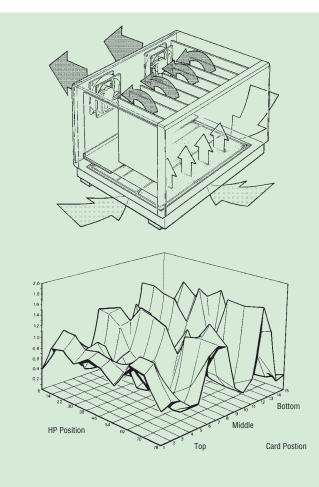
The DIPLOMAT range of enclosures has improved cooling performance in both the standard and fan plinth versions. The fan plinth version has a wider plinth with an increased ventilation surface area to increase the volume of air flow. The plinth can either act as a chamber for air collection when fans 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.

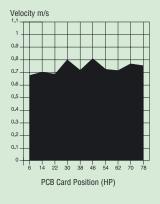
The results below were measurements of air velocity taken from the standard DIPLOMAT with new 38mm deep plinth with ducting plate, and 2 x 95 CFM fans mounted on the rear panel. The top panel was non ventilated.



DIPLOMAT Case



2 x 95CFM Rear Panel (New Style Plinth)







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DIPLOMAT Case EMC and IP Sealing

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.

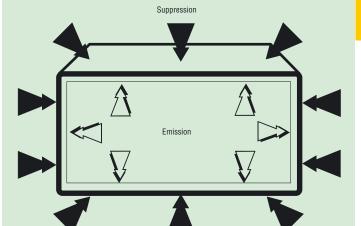
The DIPLOMAT range of enclosures have undergone a series of technical performance tests, conducted in accordance with MIL-STD 285, modified where necessary due to the nature of the enclosure. The results shown are worst case and units were not fitted with any additional metalwork. The performance of 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 foreing 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
0	No protection	diameter. No special protection

SHIELDING EFFECTIVENESS FOR 3U x 422 DIPLOMAT 19" CASE





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DIPLOMAT Cases: Overview and accessories index

DIPLOMAT 19" AND 10½" CASES

DIPLOMAT 19" and 10½" cases are designed to provide stylish, robust, yet economical solutions for housing electronic systems in either a desktop or floor standing environment. Built-in (die cast) panel mounts front and rear house standard caged nuts that allow industry standard 19" equipment, panels or subracks (to IEC 297-1 and DIN 41494) to be securely mounted. The die-cast & extruded aluminium frame together with steel covers mean they are strong and lightweight, with inherent EMC and an IP rating of 30. A fan plinth option improves the cooling performance of this unit significantly, results of which are published on page 4.04 of this brochure.

Diplomat Cases

- 322, 422, 522 & 622mm depths
- Supplied assembled

FEATURES

Superb modern styling

■ 3U, 4U, 6U & 9U heights

101/2" and 19" widths

- 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

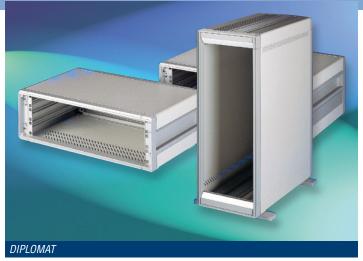
ACCESSORIES

Accessories that are specific to the Diplomat case can be found in this section on pages 4.10 to 4.14 and include transparent doors, bezel trims, carry handles, earth kits, rear panels, feature front panels and rear cable tidy.

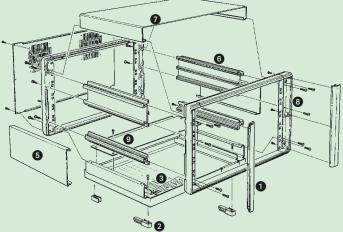
Description	Page
Transparent doors	4.10
Heavy duty carry handles	4.10
Feature front panels	4.11
19" and 101/2" front panels	4.11
Front bezel trims	4.11
Rear panels	4.12
Fan accessories	4.12
Cable tidy	4.12
Bump down foot	4.13
Rear bezel trims	4.13
Earth continuity kit	4.14
Chassis supports	4.14
Chassis trays	4.14

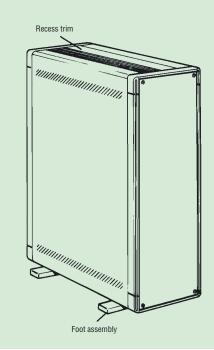
WOULD YOU LIKE THEM ADDED TO THE BASIC UNIT?

We can add your accessories to the DIPLOMAT case and despatch as one unit. Please contact our sales office for details.



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





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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 bezel	S,	Mid grey BS4800-00A05
side handles and 4L	J side extrusions	

STANDARD 19" CASES – Supplied assembled Ordering information

		Dimensions						
Height (mm)	Width	Ext depth	Max int depth	A	В	C	Order code	
		322	277	450	134,85	17	760-236562	
3U	10"	422	377	450	134,85	17	760-236563	
(161,85)	19"	522	477	450	134,85	17	760-236564	
		622	577	450	134.85	17	760-4003791	
		322	277	450	179,30	17	760-236565	
4U	19"	422	377	450	179,30	17	760-236566	
(206,30)		522	477	450	179,30	17	760-236567	
		622	577	450	179.30	17	760-4004820	

19" VENTILATION PLINTH DIPLOMATS - Supplied assembled

(with air filtration built in as standard)

Ordering information

Height	Width	Ext	Max int	t Dimensions				Order	
(mm)	wiuui	depth	depth	Α	В	C	D	Е	code
		322	277	450	134,85	39.5	506.4	287	760-236579
3U	19"	422	377	450	134,85	39.5	506.4	387	760-236580
(161,85)	19	522	477	450	134,85	39.5	506.4	487	760-236581
		622	577	450	134.85	39.5	506.4	587	760-4004821
4U (206,30)	40"	322	277	450	179,30	39.5	506.4	287	760-236582
		422	377	450	179,30	39.5	506.4	387	760-236583
	19"	522	477	450	179,30	39.5	506.4	487	760-236584
		622	577	450	179.30	39.5	506.4	587	760-4004822

10½" HALF WIDTH CASES

Ordering information

		Dimensions							
Height (mm)	Width	Ext depth	Max int depth	A	В	C	Order code		
3U	10.5	322	277	234	134,85	17	760-236575		
(161,85)	10.5"	422	377	234	134,85	17	760-236576		
4U	10 5"	322	277	234	179,30	17	760-236577		
(206,30)	10.5"	422	377	234	179,30	17	760-236578		

10½" HALF WIDTH VENTILATION PLINTH CASES – Supplied assembled Ordering information

Height	Width	Ext. depth	Max. int. depth	A	В	C	Order code
011 10 5"	10.5"	322	277	234	134.85	39.5	760-4004825
3U	10.5	422	377	234	134.85	39.5	760-4004826



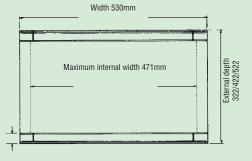
DIPLOMAT 19" Cases 3U and 4U horizontal versions

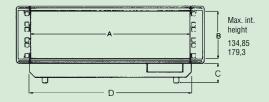


DIPLOMAT 101/2" (half width) and plinth versions

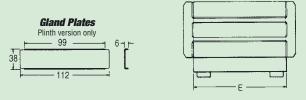
3U and 4U Horizontal Versions

Ventilation plinth and gland plates





Ventilation Plinth



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DIPLOMAT Cases 3U and 4U vertical versions

The vertical DIPLOMAT cases offer a stylish packaging solution for office based computer systems located either on or under the operators desk. For desk cases rubber inserts are provided to prevent the unit slipping on the desk surface.

Contents of kit

Description	Qty	Material/Finish
Handle	1	Aluminium alloy extrusion
Vertical feet assemb	lies 2	ABS plastic/aluminium extrusion
Ventilated side cove	irs 2	9mm Zintec coated steel
Handle extrusions	2	Aluminium alloy extrusion
Side extrusions (4U) 4	Aluminium alloy extrusion
Handle infill	10	9mm Zintec coated steel
Bezels	2	Aluminium alloy castings
Finish	Textured electrostatic epoxy paint	
Colour:	Side covers	Light grey BS4800-00A01
	Front and rear bezels,	Mid grey BS4800-00A05
side ł	nandles and extrusions, infills and	feet





3U and 4U Vertical Cases

Page

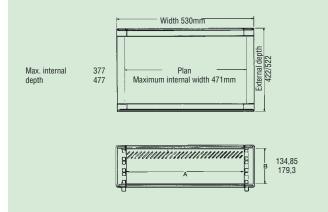
4.10

4.11

4.12

4.13

4.14



VERTICAL 19" CASES - Supplied assembled

Earth continuity kits, chassis supports and chassis trays

Transparent doors and heavy duty carry handle

Rear panels, cable tidy and fan accessories

Rear bump down feet and rear bezel trims

Front panels and front bezel trims

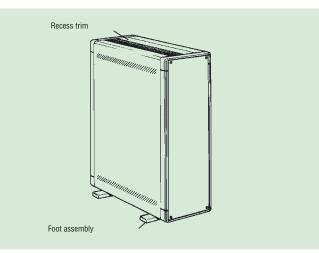
Ordering information

Order separately Description

Height	Width	Ext	Max int	А	В	Order
(mm)	depth	depth				code
3U (161,85)	10"	422	377	450	134,85	760-236635
	19"	522	477	450	134,85	760-236636
4U (206,30)	10"	422	377	450	179,30	760-236637
	19"	522	477	450	179,30	760-236638

HORIZONTAL TO VERTICAL DIPLOMAT CONVERSION

3U and 4U horizontal diplomats (as shown on page 4.07) can easily be converted into vertical version with the addition of a foot kit. Please refer to page 4.13 in the accessories section for full details.



4.08



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DIPLOMAT Cases 6U and 9U horizontal versions

6U and 9U horizontal cases are available in either standard or plinth versions. Typical cooling performance characteristics for a loaded case can be found on page 4, which also demonstrates the likely air flow path in this scenario.

Contents of kit

Descript	ion	Qty	Material/Finish
Тор соче	er	1	0.9mm Zintec coated steel
Bottom	cover (or plinth)	1	0.9mm Zintec coated steel
Handle e	extrusions	2	Aluminium alloy extrusion
Side ext	rusions	2	Aluminium alloy extrusion
Bezels		2	Aluminium alloy casting
Side infi	lls	2	0.9mm Zintec covers,coated steel
Feet (2 t	Feet (2 tilting) 4		ABS Plastic
Finish			Textured electrostatic epoxy paint
Colour:	Top/bottom covers, p	linths and side infills	Light grey BS4800-00A01
	Front and rear bezels, side handles		Mid grey BS4800-00A05
	and side extrusions		

STANDARD 10.5" HALF WIDTH CASES – Supplied assembled Ordering information

Height	Width	Ext. depth	Max. int. depth	A	В	С	Order code
6U	10.5" ·	322	277	234	268.2	17	760-4004823
00	10.5	422	377	234	268.2	17	760-4004824

STANDARD 19" DIPLOMAT CASES - Supplied assembled

Ordering information

	5		[Dimension	IS		
Height	Width	Ext	Max int	А	В	С	Order
		depth	depth				code
		322	277	450	268,20	17	760-236568
CU .	10"	422	377	450	268,20	17	760-236569
6U	19"	522	477	450	268,20	17	760-236570
		622	577	450	268,20	17	760-236573
		422	377	450	401,55	17	760-236571
9U	19"	522	477	450	401,55	17	760-236572
		622	577	450	401,55	17	760-236574

19" VENTILATION PLINTH DIPLOMATS - Supplied assembled

(with air filtration built in as standard)

Ordering information

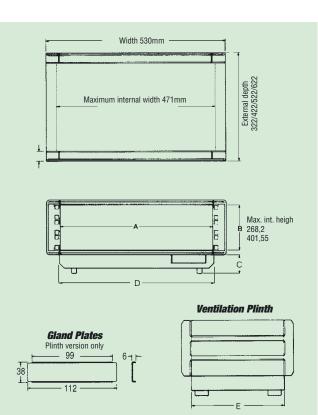
	Dimensions								
Height		Ext	Max int						Order
(mm)	Width	depth	depth	А	В	С	D	Е	code
		322	277	450	268,20	39.5	506.4	308	760-236585
6U	19"	422	377	450	268,20	39.5	506.4	408	760-236586
(295,20)		522	477	450	268,20	39.5	506.4	508	760-236587
		622	577	450	268,20	39.5	506.4	608	760-236590
011		422	377	450	401,55	39.5	506.4	408	760-236588
9U (428,55)	19"	522	477	450	401,55	39.5	506.4	508	760-236589
(720,00)		622	577	450	401,55	39.5	506.4	608	760-236591



DIPLOMAT 19" Cases 6U and 9U horizontal versions



DIPLOMAT 6U, 10½" (half width) versions



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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 Grey
Lock trim	1	Aluminium extrusion,
		satin anodised
Plain trim	1	Aluminium extrusion,
		satin anodised
Set of keys	1	
Set of fixings	1	

Ordering information

Width	Description	Order code		
10½"	Horizontal hinge	760-236832		
10½"	Horizontal hinge	760-236833		
10"	Horizontal hinge	760-236827		
19	Vertical hinge	760-240994		
19"	19"	10"	Horizontal hinge	760-236828
		Vertical hinge	760-240995	
19"	Vertical hinge	760-236829		
19"	Horizontal hinge	760-4003788		
19"	Vertical hinge	760-236831		
	10½" 10½" 19" 19" 19" 19" 19"	10½" Horizontal hinge 10½" Horizontal hinge 19" Horizontal hinge 19" Horizontal hinge 19" Horizontal hinge 19" Vertical hinge 19" Horizontal hinge		

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.

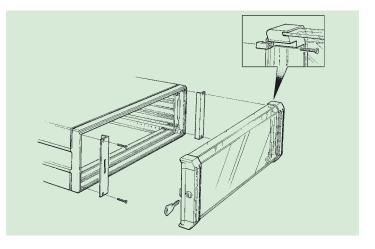
Contents of kit

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

Ordering information

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







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DIPLOMAT Cases accessories

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 di	mensions	
Height	Width	Height	Width	Order code
	10½"	138,5	304	60-39272
3U	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	١	Vidth	Order code
1U	19"	(482mm)	50-0767
011	10½"	(266,7mm)	50-0763
2U	19"	(482mm)	50-0768
211	10½"	(266,7mm)	50-0764
3U	19"	(482mm)	50-0769
411	10½"	(266,7mm)	50-0765
4U	19"	(482mm)	50-0770
6U	19"	(482mm)	50-0772
9U	19"	(482mm)	50-24284



Feature front panels





FRONT BEZEL TRIMS

These provide an attractive finish to the DIPLOMAT cases when the equipment has been installed. They are available in two versions; single part and two part, where the latter includes a second interlocking piece to cover the 19" fixing screws of the equipment.

The two part trims come in plain and highlighted versions. The plain versions are mounted from the rear of the bezel, providing a clean fronted appearance and offering additional security. The highlighted versions are mounted from the front of the unit for easy access and silkscreened pantone green.

Single part trims are available in plain form only to provide a clean frontal appearance whilst maintaining access to the 19" fixings.

Ordering information

Height	Description	Order code
011	Plain single part	760-4004830
3U	Plain two part	760-236865
411	Plain single part	760-4004831
4U	Plain two part	760-236866
<u></u>	Plain single part	760-4004832
6U	Plain two part	760-236867
011	Plain single part	760-4004833
90	Plain two part	760-236868





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10%" AND 19" REAR PANELS

These steel rear panels are available in two versions - standard ventilated or fan ventilated - and two widths to suit 101/2" 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
	10½"	760-236628
3U	19"	760-236623
411	10½"	760-236629
40	19"	760-236624
6U	19"	760-236625
9U	19"	760-236627

Description: Fan ventilated panels

Height	Width	Fan positions	Order code
	10½"	1	760-236876
3U	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 - 101/2" AND 19" CASE COMPATIBLE **ORDERING INFORMATION**

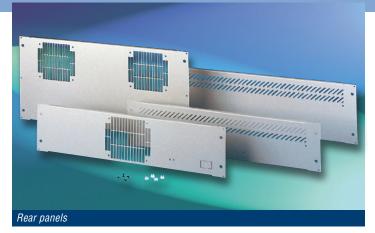
Description	Order code
120mm 220V AC 50Hz fan	28-238116
120mm Finger guard	28-202490
Fan fixing kit	28-43872
Fan connection lead	28-241569

REAR CABLE TIDY - 101/2" 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 prepunched rear panels (both types).

ORDERING INFORMATION

Description	Order code
Rear cable tidy kit	517-203357





Fan panel accessories





4

Electronics Packaging

4.12

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DIPLOMAT Cases accessories

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
Fixina 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
9U	60-54748

3U & 4U VERTICAL FOOT KIT

3U and 4U horizontal diplomats can be converted to vertical versions with the addition of a foot kit. Available in 4 sizes, they comprise an infill strip which locates in the top handle recess along with 2 bracket / foot assemblies. Note that the bottom handle recess needs to be suitably drilled to fix the bracket.

CONTENTS OF KIT

Description	Qty	Material / Finish
Handle recess infill	1	Steel, mid grey BS4800-00A05
Foot mounting bracket	2	Steel, mid grey BS4800-00A05
Foot	2	Steel, mid grey BS4800-00A05
Foot end cap	4	Polycarbonate, mid grey BS4800-00A05
Self-adhesive bumper stop	4	Rubber, black

ORDERING INFORMATION

Description	Ordercode
3U x 422 foot kit	60-4005516
3U x 522 foot kit	60-4005517
4U x 422 foot kit	60-4005518
4U x 522 foot kit	60-4005519







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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	M4 Pan head screw	5
Bolt-on spade connector	5	M4 Hex nut (thin)	10
Earth bonding screw	5	Instructions leaflet	1

ORDERING INFORMATION

Description	Order code
DIPLOMAT earth continuity kit	60-54598

CHASSIS SUPPORT KIT - 101/2" 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

Width	Depth	А	В	Depth	Order code
	322	467	451	256	60-43796
19" or 10½"	422	467	451	356	60-43797
	522	467	451	456	60-43798
	622	467	451	556	60-43799

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.

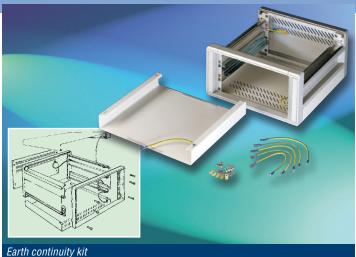
A matrix of slots is provided in each tray so that it does not restrict airflow within the unit. This is especially important when used in a DIPLOMAT case with a ventilation plinth.

CONTENTS OF KIT

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

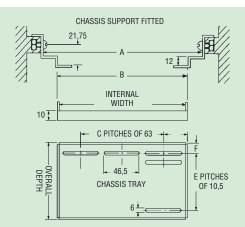
ORDERING INFORMATION

Description: Chassis tray							
Case	e Size			Dim	nensions		
Width	Depth	Available	С	D	Е	F	Order
		int. width					code
	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
	622	448	5	67	50	21	60-43805





Chassis support & chassis tray



Diplomat Height	Chassis Support Positions
3U	1U, 2U & 3U
4U	0.5U, 1U, 2U, 3U & 3.5U
6U	1U, 4U, 5U & 6U
9U	1U, 7U, 8U & 9U

4.14 **Electronics** Packaging

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DIPLOMAT Caseframes: Overview and accessories index

DIPLOMAT CASEFRAMES

DIPLOMAT 3U & 6U caseframes are designed to provide stylish, robust, yet economical solutions for housing electronic systems in either a desktop or floor standing environment. Built-in horizontal tiebars house M2.5mm tapped strips & guides that facilitate the mounting of Eurocard PCBs, front panels or modules to IEC 297-3 and DIN 41494. The die-cast & extruded aluminium frame together with steel covers mean they are strong and lightweight, with inherent EMC and an IP rating of 30. A fan plinth option improves the cooling performance of this unit significantly, results of which are published on page 4.04 of this brochure.

FEATURES

- 3U & 6U heights
- 42, 60 & 84HP widths
- 324, 444 & 564mm depths
- 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

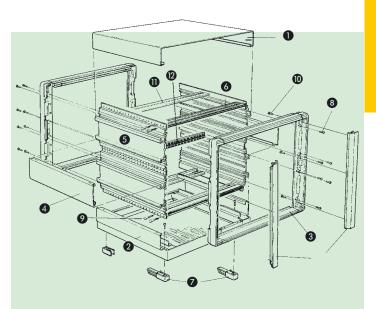
ACCESSORIES

Accessories that are specific to the Diplomat caseframe can be found in this section on pages 4.19 to 4.22 and include transparent doors, bezel trims, carry handles, earth kits, rear panels, feature front panels and rear cable tidy. The Diplomat caseframe accepts the direct mounting of eurocards and has therefore been designed to be fully compatible with the KM6-II subrack system. Accessories from this range can be found in sections 1 and 2 (refer to page 1.23 and 2.03) and include tiebars, card guides, front panels, modules, divider kits, DIN connector adaptors and more.

Description	Page
Transparent front doors	4.19
Feature front panels	4.19
Front and rear bezel trims	4.20
Heavy duty carry handles	4.20
Earth continuity kits	4.20
Steel rear panels	4.21
Fan panel accessories	4.22
Rear cable tidy	4.22
Rear bump down feet	4.22



DIPLOMAT caseframes



0	Top Cover	2	Bottom Cover
3	Bezels	4	Side Cover (6U only)
6	Handle Extrusions	6	Front Tie Bars
0	Feet (tilting)	8	M4 x 16 Screws
9	M4 x 25 skt screw	0	M4 x 8 Screws
0	Rear Tie Bars	Ø	Mid Rear Tie Bars



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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	Aluminium alloy
	4 with 6U	
Side infill covers	2	0.9mm Zintec covers, coated steel
(6U only)		
Feet (2 tilting)	4	ABS plastic
Exclude for basic versions		
Rear tie bars (3U)	2	Aluminium alloy
Rear tie bars (6U)	3	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		Inte	ernal		
Height	Width	Depth	Height	Width	Depth	Order code
	42 HP	324	3U (133,35)	42 HP	279	717-236546
	60 HP	324	3U (133,35)	60 HP	279	717-236547
3U (160,35)	84 HP	324	3U (133,35)	84 HP	279	717-236548
	84 HP	444	3U (133,35)	84 HP	399	717-236549
	60 HP	324	6U (266,70)	60 HP	279	717-236550
6U (293,70)	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		Int	ernal		
Height	Width	Depth	Height	Width	Depth	Order code
	42 HP	324	3U (133,35)	42 HP	279	717-238220
	60 HP	324	3U (133,35)	60 HP	279	717-238221
3U (160,35)	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	А	Order code
3U (160,35)	84 HP	444	3U (133,35)	84 HP	399	16	717-238228
CIL (000 70)	84 HP	444	6U (266,70)	84 HP	399	16	717-238229
6U (293,70)	84 HP	564	6U (266,70)	84 HP	519	16	717-238230



ORDER SEPARATELY

Accessories that are specific to the Diplomat caseframe can be found in this section on pages 4.19 to 4.22 and include transparent doors, bezel trims, carry handles, earth kits, rear panels, feature front panels and rear cable tidy. The Diplomat caseframe accepts the direct mounting of eurocards and has therefore been designed to be fully compatible with the KM6-II subrack system. Accessories from this range can be found in sections 1 and 2 (refer to page 1.23 and 2.03) and include tiebars, card guides, front panels, modules, divider kits, DIN connector adaptors and more.

Diplomat Accessories	Page
Transparent front doors	4.19
Feature front panels	4.19
Front and rear bezel trims	4.19
Heavy duty carry handles	4.20
Earth continuity kits	4.20
Steel rear panels	4.21
Fan panel accessories	4.22
Rear cable tidy	4.22
Rear bump down feet	4.22
KM6 Compatible Accessories	
EMC conversion kits	1.19
EMC closing panels	1.22
Front tie bars	1.25
Rear backplane mounting tie bars	1.26
Rear DIN 41612 connector mounting tie bars	1.27
DIN 41612 connector mountings	1.29
Backplane spacers	1.29
PCB or plug-in unit guides	1.30
PCB grounding clips	1.31
PCB guide retention	1.31
PCB retainers and guide nose extensions	1.32
PCB ejectors	1.32
Front divider kits	1.33
Rear divider kits	1.34
Horizontal card mounting modules	1.36
Fixing screws	1.40
Front panels and plug-in units	section 2

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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. 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 4.21. As standard the vertical foot is supplied with rubber inserts to avoid any slippage on a desk surface.

CONTENTS OF KIT

Descript	ion	Qty	Material/Finish
Side cov	ers non vented	2	0.9mm Zintec coated steel
Bezels		2	Aluminium alloy
Foot kit		1	ABS plastic and aluminium alloy
Vertical i	nfill panel	1	0.9mm Zintec coated steel
Screw ki	t		
Finish			Textured electrostatic epoxy paint
Colour:	Side covers		Light grey BS4800-00A01
	Front and rear be	zels,	Mid grey BS4800-00A05
side handles and extrusions,		extrusions,	
	infills and feet		

ORDERING INFORMATION

	Exte	rnal		Internal		
Height	Width	Depth	Height	Width	Depth	Order code
	42 HP	324	3U (133,3	5) 42 HP	279	717-238231
3U (160,35	60 HP	324	3U (133,3	5) 60 HP	279	717-238232
	84HP	444	3U (133,3	5) 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 4.04shows in more detail the front to back air flow characteristics.

ORDERING INFORMATION

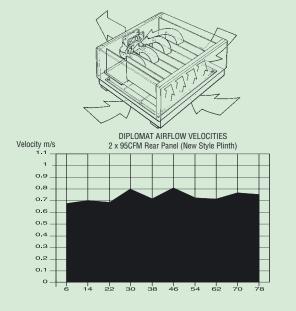
	External			Internal		
Height	Width	Depth	Height	Width	Depth	Order code
3U (160,35)	84 HP	444	3U (133,35)	84 HP	399	717-238228
	84 HP	444	6U (266,70)	84 HP	399	717-238229
6U (293,70)	84 HP	564	6U (266,70)	84 HP	519	717-238230



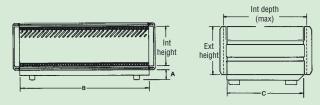
DIPLOMAT Caseframes 3U vertical versions



DIPLOMAT Caseframes fan plinth versions



PCB Card Position (HP)





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DIPLOMAT Caseframes accessories

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
	42HP	Horizontal	717-236834
011	60HP	Horizontal	717-236835
3U	84HP	Horizontal	717-236836
	84HP	Vertical	717-240996
<u></u>	60HP	Vertical	717-236837
6U	84HP	Vertical	717-236838

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

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

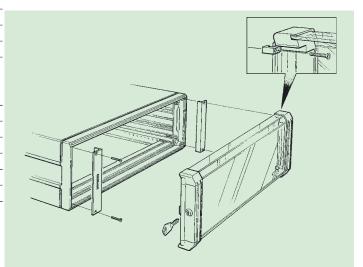
Description	Qty	Material/Finish
Panel	1	3mm Aluminium, satin anodised
Fixing screws	4	

Ordering information

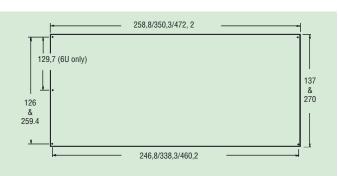
Description: Feature front panels

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









4.18

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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. Rear fixing provides security and front fixing ease of access.

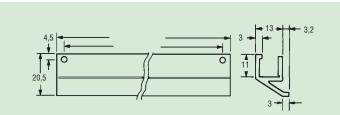
ORDERING INFORMATION

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

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.

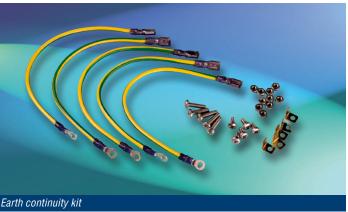
CONTENTS OF KIT

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	Uraer coae
DIPLOMAT earth continuity kit	60-54598







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DIPLOMAT Caseframes accessories

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

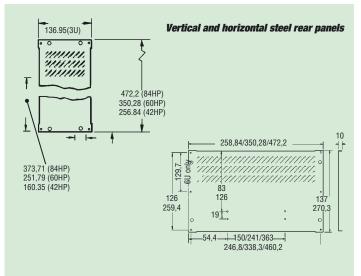
Description	Qty	Material/Finish
Panel	1	0.9mm Zintec steel, colour mid grey BS4800-00A05
Fixina screws	4	

ORDERING INFORMATION

Description: Steel rear panels

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

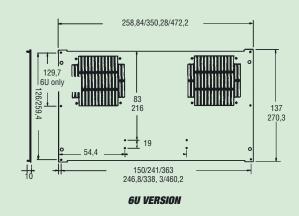
ORDERING INFORMATION

Description: Rear fan panel without fans fitted

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







4.20

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DIPLOMAT Caseframes accessories

FAN PANEL ACCESSORIES

ORDERING INFORMATION

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



Fan panel accessories

Rear cable tidy

REAR CABLE TIDY - 101/2" 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 prepunched rear panels (both types).

ORDERING INFORMATION

Description	Order code
Rear cable tidy kit	517-203357



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



UK 🕾 +44 (0)2380-246900 sales@verotec.co.uk US[®]+I-603-82I-992I sales@verotec.us FR 🕾 +33 (0)3-444-514-60 sales@verotec.fr