

Standard Products

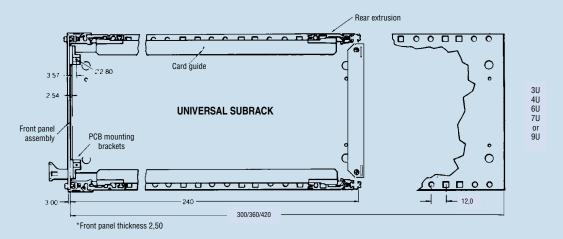
System Integration

Contract Manufacture

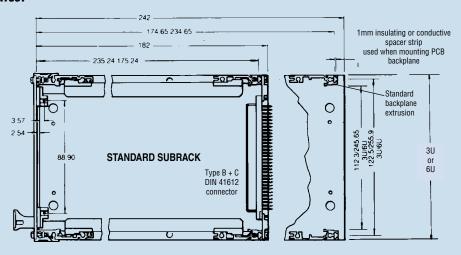


KM6-II Subracks

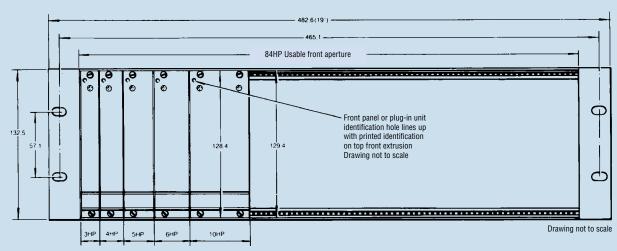
### UNIVERSAL SUBRACK LAYOUT



### STANDARD SUBRACK LAYOUT



### **3U SUBRACK FRONT VIEW**



KM6-II 'Standard' Subracks are strong and versatile, whilst offering ease of assembly. The tie bars are of a larger section to improve both rigidity and guide location, and versions suitable for 220mm boards will accept 160mm boards. The end plates are symmetrical in design, allowing 19" end plate angles to be fitted on either the front or rear of the frame, thus providing easy rear access.

### **Features**

- Versions for backplane and DIN 41612 connector
- Strong and versatile
- Conforms to IEC 60297-3
- Totally conductive components
- 160mm mounting in 220mm versions
- Provision for fitting 19" angles front or rear
- 3U and 6U heights
- 160 and 220mm board compatible
- 84 and 42 HP widths available
- Simple assembly single screw fixing of tie-bars
- No adjustment required after assembly
- Pre-tapped holes and machine screws throughout
- Supplied as a complete kit
- Reduced height end plates to accept chassis supports
- Available with or without front handles

'Standard' subracks can be supplied with backplane or DIN 41612 connector mounting rear extrusion. 84HP kits are available with, or without, front handles. Backplane extrusions can be converted to DIN 41612 by means of a separate connector frame.

The kit includes rear tie bars and is complete with all tapped strips. In order to maintain the front panel/connector geometry a suitable backplane spacer, either insulating or conductive, must be used on backplane versions.

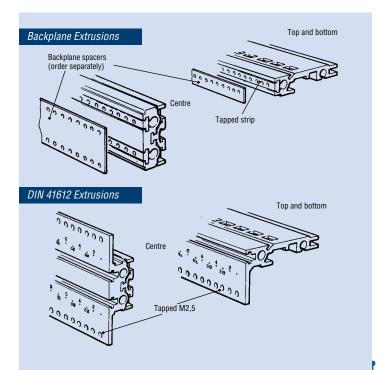
### Contents of kit

Description	Qty.	Material/Finish
End plates	2	2mm aluminium BS 1470 5251-H24
		(NS4 H6), conductive clear chromate
End plate angles	2	Aluminium Ally BS1474-6063-T6
		anodised
Front tie bars	2	Aluminium alloy BS 1474 6063T6,
		conductive clear chromate
Rear tie bars	2	Aluminium alloy BS 1474 6063T6,
		conductive clear chromate
Centre rear tie bar (6U only)	1	Aluminium alloy BS 1474 6063T6,
		conductive clear chromate
Tapped strips		MS Zinc passivate
Backplane variants (3U/6U)	4/6	
DIN 41612 variants	2	
(the rear extrusions are fully ta	apped)	
All fixings		
Assembly instructions		
Optional: handles	2	









### KM6-II SUBRACK, BACKPLANE MOUNTING

J	intormation			
Height	Depth (mm)	Width (HP)	Order code	Order code
			without handles	with handles
	180	42	950-202583	_
3U	240	42	950-202587	_
30	180	84	950-202581	950-232563
	240	84	950-202585	950-232654
6U	180	42	950-202584	_
	240	42	950-202588	_
	180	84	950-202582	950-232604
	240	84	950-202586	950-232605

- In order to maintain the correct geometry between the front panels and backplane connectors a suitable backplane spacer is required. Either insulating or conductive types (1mm thick) may be used, and must be located between the rear tie bar and the backplane - refer to page 34.
- 2. Backplane mounting tie bars can be converted to accept DIN 41612 connectors by fitting adaptor kits or rails - refer to page 34.

### KM6-II SUBRACK, DIN 41612 CONNECTOR MOUNTING

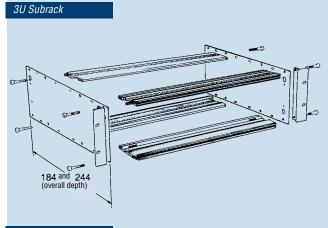
$\Delta$	information	
Oraerina	miormation	

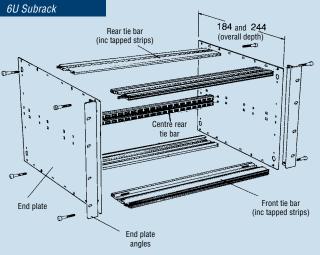
Height	Depth (mm)	Width (HP)	Order code	Order code
			without handles	with handles
3U	180	84	950-232050	950-232568
30	240	84	950-232051	950-232569
6U	180	84	950-232052	950-232607
00	240	84	950-232053	950-232608

### Order separately

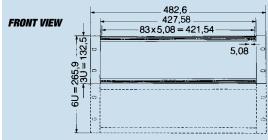
Product	Page
DIN 41612 Connector Adaptor kits	34
Backplane Spacers	34
PCB or Plug-in Unit Guides	35
PCB Grounding clip	36
PCB Retainers and guide nose extensions	37
PCB Ejectors	38
Divider kits	41 –43
Rear Dust Covers	44
Top, Bottom and Rear Covers – non-EMC	44
Horizontal PCB Mounting Modules	45
Subrack Handles	46
Connector Protection Kits	47
Fixing Screws	48

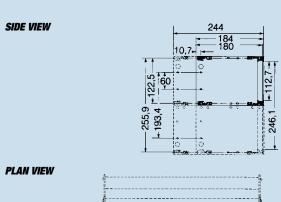
Note: The conductive finish gives excellent electrical conductivity but is more easily marked than anodising. During assembly care should therefore be taken to avoid the deposition of grease and oil, particularly on the visible surfaces.

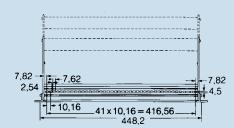




### Dimensional Detail









Universal KM6-II subracks are strong, versatile and easy to assemble. The tie bars are of large section for rigidity and are secured using two fixing screws into counterbored holes. The screws thus act as location dowels promoting a high degree of accuracy during construction.

### **Features**

- Strong and versatile
- Two screw fixing of tie bars
- Conforms to IEC 60297-3
- Total versatility permits wide range of configurations
- Available in kit or piece-part form
- Accurate location for first time assembly
- Rugged construction
- Pre-tapped holes and machine screws throughout
- EMC conversion (see pages 23 27)
- No location mouldings required
- With or without front handles
- Provision for fitting 19" angles front or rear

This version, as the name implies, has the capability of housing Eurocards of different sizes in a variety of configurations.

The frame can be constructed from standard parts in 3U, 4U, 6U, 7U and 9U heights.

The 240mm, 300mm, 360mm or 420mm deep endplates, incorporate a series of punched holes so that the tie bars can be assembled at any required position on a 12mm pitch. 300mm and greater depths also have a pattern of additional holes for fixing the chassis system. 84 HP variants are offered in Backplane or DIN 41612 connector mounting and are supplied with or without front handles. DIN 41612 rear tie bars are fully tapped.

Note: 4U and 7U versions can only be ordered from piece parts. Alternative versions of 3U, 6U and 9U subracks can also be ordered from piece parts.

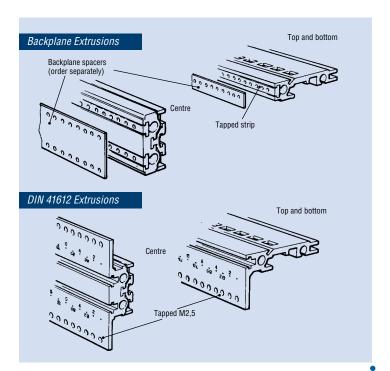
### Contents of kits

Description	Qty.	Material/Finish
End plates	2	2mm or 2,5mm aluminium BS 1470 5251-
		H24 (NS4 H6) conductive clear chromate
End plate angles	2	Aluminimum alloy BS1474-6063-T6
		anodised
Front tie bars	2	Aluminium alloy BS 1474-6063-T6
		conductive clear chromate
Rear tie bars -	2 - 3U	Aluminium alloy BS 1474-6063-T6
	3 - 6U	conductive clear chromate
	4 - 9U	
Tapped strips		
Backplane variants-	4 - 3U	MS zinc passivate
	6 - 6U	MS zinc passivate
	8 - 9U	MS zinc passivate
DIN 41612 variants	2	Aluminium alloy BS 1474 6063T6
(the rear extrusions are full	y tapped)	conductive clear chromate
All fixings		
Assembly instructions	1	
Optional: handles	2	









### KM6-II SUBRACK, BACKPLANE MOUNTING

Ordering	information			
Height	Depth (mm)	Width (HP)	Order code	Order code
			without handles	with handles
	240	42	950-202592	-
3U	240	84	950-202589	950-232565
30	300	84	950-223550	950-232566
	360	84	950-202594	950-232567
	240	42	950-202593	-
	240	84	950-202590	950-232599
6U	300	84	950-223551	950-232601
	360	84	950-202595	950-232602
	420	84	950-202597	950-232603
9U	240	84	950-202591	-
	300	84	950-224198	-
	360	84	950-202596	-
	420	84	950-202598	-

### Notes:

- In order to maintain the correct geometry between the front panels and backplane connectors a suitable backplane spacer is required. Either insulating or conductive types (1mm thick) may be used, and must be located between the rear tie bar and the backplane - refer to page 34.
- Backplane mounting tie bars can be converted to accept DIN 41612 connectors by fitting adaptor kits or rails - refer to page 34.

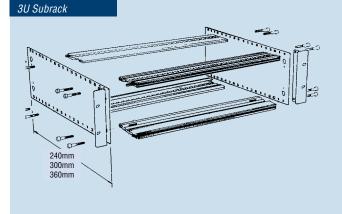
### KM6-II SUBRACK, DIN 41612 CONNECTOR MOUNTING

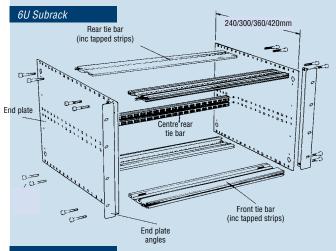
Ordering in	formation			
Height	Depth	Width (HP)	Order code	Order code
			without handles	with handles
3U	240	84	950-232054	950-232570
	360	84	950-232055	950-232571
6U	240	84	950-232056	950-232609
00	360	84	950-232057	950-232610

### Order separately

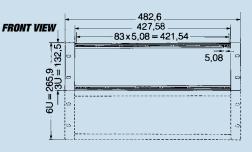
Product	Page
EMC Covers/conversion kit	23 – 26
EMC Front and Rear Panels	27
Backplane spacers	34
DIN 41612 connector mounting	34
PCB or Plug-in module guides	35
PCB Grounding clips	36
Positive Guide Retention – tapped strips	36
PCB Retainers and guide nose extensions	37
PCB Ejectors	38
Divider Kits	41 – 43
Rear Dust covers – non-EMC	44
Top and Bottom covers – non-EMC	44
Horizontal mounting modules	45
Subrack handles	46
Connector protection kits	47

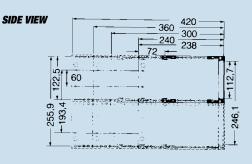
Note: The conductive finish gives excellent electrical conductivity but is more easily marked than anodising. During assembly care should therefore be taken to avoid the deposition of grease and oil, particularly on the visible surfaces.

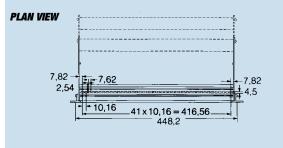




Dimensional Detail









UK 28

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### KM6-II Universal and KM6-EC Subracks: EMC Conversion

### KM6-II EMC CONVERSION KITS

KM6-II Universal subracks and some sizes of KM6-EC can be retrospectively EMC screened by the addition of covers and suitable front and rear panels.

Two Basic types of screening cover are available:

**OVERALL**, (Fig. 1) which provide a screen over both the card area and the rear connector/backplane area. In this version, the rear of the subrack is completed by the addition of conventionally fixed panels, either full width or in combinations of lesser width front panels.

PCB AREA ONLY (Fig. 2) This application requires a motherboard/backplane which is specifically designed to provide rear screening using ground plane technology. With this geometry, only the front aperture requires screening panels.

Covers are generally available in ventilated and unventilated forms. They are designed to maintain intimate contact with the end plates by means of screws and internal flanges. At the interface with the extrusions, the covers have patented dimples in such a way as to provide an interference fit with a slot in the extrusion. The concept of this slot ensures that the card guide location holes are within the screened area of the subrack and also provides additional screening by introducing a labyrinth around the edge of the cover.

'A guide to the EMC screening of subracks' on page 12 discusses the effects of various configurations on the overall performance, with particular attention to the use of RFI fingers.

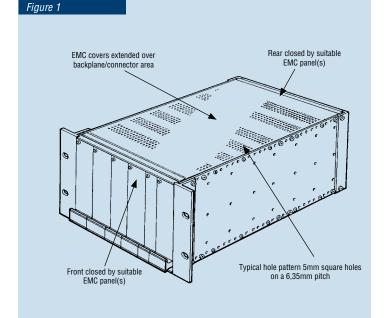
### ORDERING AN EMC SCREENED SUBRACK

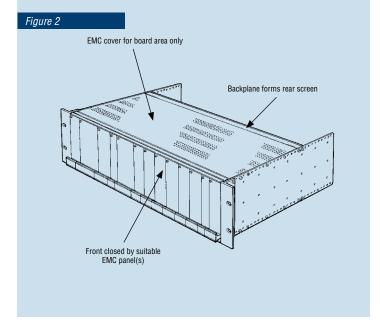
- Select a Universal subrack kit to suit your card size using table below. Note that, for instance, it is not possible to EMC screen a 220mm long card in a 240 deep subrack.
- Select an EMC conversion kit to suit your subrack and card size (see page 24 for Overall Depth Covers and page 25 for PCB Depth Covers). Note – for screening 42HP subracks please refer to note 2 on page 34
- 3 Select front and rear panels as appropriate (see page 27).
- d Identify total quantity of RFI finger strips required according to the desired performance level of the final assembly. (See page 12 for guide and page 24 for EMC finger strips).

### KM6-II UNIVERSAL SUBRACKS

PCB Configurations accepted when using EMC conversions and cover kits PCB Depth (mm) Order code End Plate (mm) Height 160 240 3U Refer to page 22 160/220 300 160/220 360 160 240 160/220 300 6U Refer to page 22 160/220 360 160/220/280/340 420 240 160 911 160/220 360 Refer to page 22 160/220/280/340 420







### KM6-II Universal Subracks: EMC Conversion

### EMC CONVERSION KITS - OVERALL DEPTH

This kit contains the parts required to convert an 84HP subrack for EMC.

**KM6 Subracks** 

- 1. EMC front and rear panels and EMC fingers should be ordered separately to suit requirements - please refer to page 27.
- 42HP card frames can be effectively screened by ordering the individual covers, rear closing angles and front panels featured on pages 26, together with the EMC finger strip detailed below.

### Contents of kit

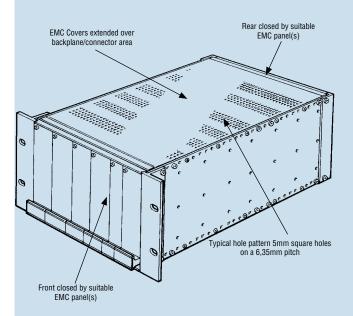
Description	Qty.	Material and finish
Plain tie bars	2	Aluminium alloy BS1474-6063-T6
		conductive clear chromate
Tapped strips	2	MS Zinc passivate
Rear closing angles	2	Aluminium Ally BS1474-6063-T6
		anodised
Top and bottom covers	2	0,9mm Aluminium alloy
(either ventilated or unventilated)		conductive clear chromate
All fixings		

### **KM6-II EMC CONVERSION**

Ordering	Information

Height	Ventilated	PCB Depth	End Plate	Order
		(mm)	(mm)	Code
011	No	160	240	950-240574
3U	Yes	160	240	950-240575
CLI	No	160	240	950-240576
6U	Yes	160	240	950-240577
011	No	160	240	950-240578
9U	Yes	160	240	950-240579
011	No	160/220	300	950-240580
3U	Yes	160/220	300	950-240581
	No	160/220	300	950-240582
6U	Yes	160/220	300	950-240583
	No	160/220	360	950-240584
3U	Yes	160/220	360	950-240585
	No	160/220	360	950-240587
6U	Yes	160/220	360	950-240588
011	No	160/220	360	950-240589
9U	Yes	160/220	360	950-240590
CI.I	No	160/220/280/340	420	950-240562
6U	Yes	160/220/280/340	420	950-240563
	No	160/220/280/340	420	950-240564
9U	Yes	160/220/280/340	420	950-240565

### Figure 3



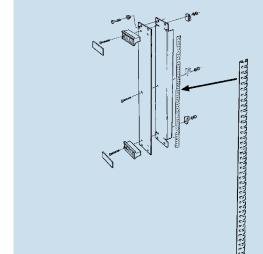
### RFI FINGER STRIP

Supplied in lengths of 381mm consisting of 60 fingers. The fingers are self adhesive for easy application and replacement in the field. The quantity of fingers fitted at any panel/subrack interface is selected according to the performance required from the overall screen. Please see page 12 for details. They can be cut using a sharp pair of scissors, taking care to avoid crushing during cutting.

RFI finger strip material: Beryllium copper

### Ordering information

Description	Length	Order code
RFI Finger strip	381mm (60 fingers)	930-238243



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RFI Finger strip

### KM6-II Universal Subracks: EMC Conversion

### **BOARD AREA ONLY EMC COVER KITS**

Board area only EMC cover kits (Fig.4) For use in situations where the backplane forms the rear EMC screen, these ventilated covers fit between the front, and backplane, extrusion only.

Select by board depth and subrack width (84HP only); end plate depth is not a consideration.

### Contents of kit

Description	Qty.	Materials/Finish
Top and Bottom Covers	2	0,9mm Aluminium alloy
(ventilated)		conductive clear chromate
Fixings		

### Ordering information

Description	Order code
84HP x 160 Ventilated EMC cover	950-259371
84HP x 220 Ventilated EMC cover	950-259372

This performance graph shows the results from randomly selected KM6-II subracks, 6Ux84HPx360 with ventilated and unventilated EMC covers. Both were fitted with overall closing panels and a maximum quantity of BeCu fingers.

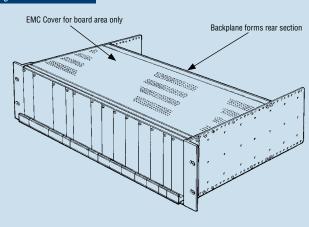
Measurements were taken at all six faces and the results shown in the graph are calculated as follows:

H field - minimum figures

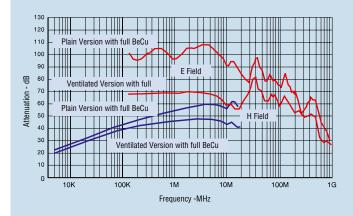
**E field** – minimum figures up to 30MHz above 30MHz the figures for all faces are plotted on a rolling seven point average.

A detailed discussion of our EMC test facility and procedures is shown in our separate leaflet 'The Science of Compliance'. If you require a copy, please contact your local sales office.

### Figure 4



### KM6-II Shielding Effectiveness



### KM6-II Universal Subracks: EMC Conversion - piece parts

### KM6-II EMC CONVERSION: TOP AND BASE COVERS - OVERALL DEPTH

The 'Overall' EMC conversion kits are also available in their constituent parts. In addition to the 84HP versions, a small range of ventilated overall covers is available in 42HP and 60HP widths. In order to fit these, it is necessary to order reduced width front extrusions and tapped strips, M4 fixing screws and rear closing angles.

### Contents of kit

Description	Qty.	Material/Finish
Covers	2	0,9mm aluminium alloy, conductive clear chromate
All fixings		

### **Ordering Information**

Width	Ventilated	PCB Depth (mm)	End Plate (mm	) Order code
42HP	No	160	240	_
42NF	Yes	160	240	950-259417
60HP	No	160	240	-
ООПГ	Yes	160	240	950-259418
84HP	No	160	240	950-240557
04111	Yes	160	240	950-240553
42HP	No	160/220	300	_
	Yes	160/220	300	950-259419
84HP	No	160/220	300	950-240556
	Yes	160/220	300	950-240552
	No	160/220	360	950-240559
	Yes	160/220	360	950-240554
	No	160/220	420	950-240558
	Yes	160/220	420	950-240555

### **REAR CLOSING ANGLES**

These are fitted at the rear in conjunction with rear mounting tie bars. EMC Beryllium copper fingers should be ordered separately to maintain the shield between the subrack and EMC panels.

### Contents of kit

Description	Qty.	Material/Finish
Angles	2	AL extrusion, conductive clear chromate

### **Ordering information**

Description	Order code
3U Rear closing angles	950-240549
4U Rear closing angles	950-259278
6U Rear closing angles	950-240550
7U Rear closing angles	950-259279
9U Rear closing angles	950-240551

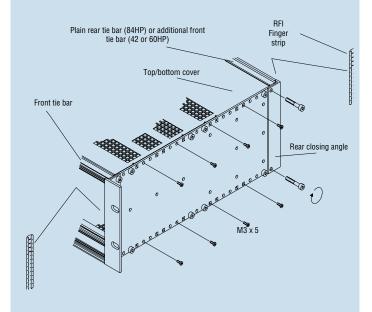
### **REAR MOUNTING TIE BARS**

Two should be ordered per subrack. 84HP version use a plain tie bar. Other widths use standard front tie bars. Sold in singles. Two tapped strips and eight fixings are also required.

### **Ordering information**

Description: Rear mounting bars

Width	Туре	Order code
84HP	Plain tie bar	950-221909
04111	Tapped strip	950-202001
	Front tie bar top	950-202743
60HP	Front tie bar bottom	950-202742
	Tapped strip	950-202740
	Front tie bar top	950-202736
42HP	Front tie bar bottom	950-202735
	Tapped strip	950-202739
Tie bar f	ixing screws: Pack 100 (4 per tie bar required)	950-202734





1.26

### KM6-II Universal Subracks: EMC Conversion - front panel options

### INDIVIDUAL TWO-PART EMC PANELS

Available in various widths as blanking panels or for mounting circuit boards. Copper fingers are required for maintaining continuity between neighbouring panels. 6U and 9U panels have type C handle format.

Note that these two-part panels, although still available, have been replaced with single-part extruded versions with gaskets fitted. Full details can be found from page 2.21 onwards of the Front Panels and Plug-in Units section.

### Contents of kit

Description	Finish
Panel inc. fixings	Facia panel etch and clear anodise,
	inner panel conductive clear chromate
Handles and idents (1-3U, 2-6U and 9U)	

### Ordering information

Description: Individual EMC panel

Height	Width	Qty.	Order code
	4HP	1	951-242963
3U	6HP	1	951-242964
00	8HP	1	951-242965
	24HP	1	951-242968
6U	4HP	1	951-242969
	6HP	1	951-242970
	8HP	1	951-242971
	12HP	1	951-242972

### **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

Types 2 and 3 are particularly useful in situations where frequent access is likely to be required.

### Contents of kit

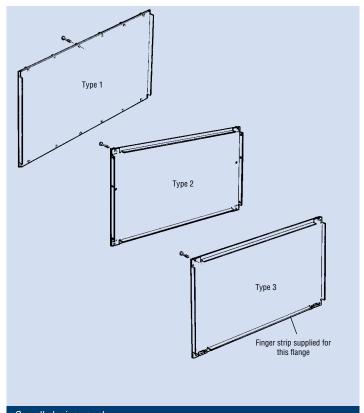
Description	Finish
Panel inc. fixings	Facia panel etch and clear anodise,
	inner panel conductive clear chromate
Handles and idents (Type 2 only)	

### Ordering information

Description: Overall closing panels

Туре	Qty	Width	Height	Order code
			3U	950-202694
1	1	84HP	6U	950-202695
			9U	950-202696
			3U	951-242957
2	1	84HP	6U	951-242958
			9U	951-242959
			3U	951-242960
3			4U	951-259284
	1	1 84HP 6U	6U	951-242961
			7U	951-259285
			9U	951-242962





Overall closing panels



### KM6-II Subracks: Piece parts

### KM6-II UNIVERSAL SUBRACK - PIECE PARTS

It is possible to order KM6-II 'Universal' subracks from piece parts. This allows special configurations to be achieved. 4U and 7U Universal subracks can only be ordered from piece parts. All basic components are detailed on the next four pages.

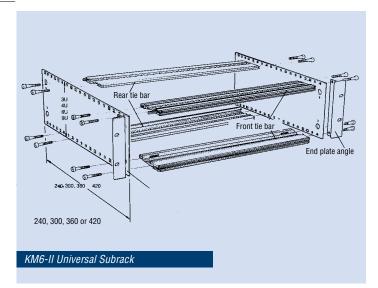
### **WHAT MUST I ORDER?**

Typical Example:-

To achieve a basic 3U Universal subrack you must order the following:

Item	Quantity	Page
End plates	2	29
End plate angles	2	29
Front tie bar - top	1	30
Front tie bar - bottom	1	30
Rear tie bars (backplane or connector mounting)	2	31–32
Tapped strips	2 or 4	34
Tie bar fixings	16 (sold in pks. 100)	48





### Order separately

Product	Page
EMC Covers/conversion kit	23 – 26
EMC Front and rear panels	27
Backplane spacers	34
DIN 41612 connector mounting	34
PCB or Plug-in module guides	35
PCB Grounding clips	36
Positive guide retention – tapped strips	36
PCB Retainers and guide nose extensions	37
PCB Ejectors	38
Divider Kits	41 – 43
Rear Dust covers – non-EMC	44
Top and Bottom covers – non-EMC	44
Horizontal mounting modules	45
Subrack handles	46
Connector protection kits	47
Fixing screws	48

Note: The conductive finish gives excellent electrical conductivity but is more easily marked than anodising. During assembly care should therefore be taken to avoid the deposition of grease and oil, particularly on the visible surfaces.



### KM6-II Subracks: Piece parts

### **END PLATES**

Universal end plates are punched on a 12mm pitch along their length to enable tie bars to be mounted to suit customer applications.

On 300mm and deeper versions there is also a pattern of intermediate holes to permit the fixing of a chassis or support system.

Identifications are stamped on the end plate to assist in tie bar location. End plates are sold singly (i.e. 2 required for each subrack).

The 4U x 360 and 7U x 420 versions can be assembled as  $3U/6U + 2 \times \frac{1}{2}U$  or 3U/6U + 1U.

### Ordering information

Description: End plates

Height	Depth	Thickness	Qty.	Order code
	240mm	2mm	1	950-202787
3U	300mm	2mm	1	950-221911
	360mm	2mm	1	950-202790
411	240mm	2,5mm	1	950-202618
4U	360mm	2,5mm	1	950-202620
6U	240mm	2mm	1	950-202788
	300mm	2,5mm	1	950-221912
	360mm	2,5mm	1	950-202791
	420mm	2,5mm	1	950-202793
7U	420mm	2,5mm	1	950-259286
9U	240mm	2,5mm	1	950-202789
	300mm	2,5mm	1	950-224197
	360mm	2,5mm	1	950-202792
	420mm	2,5mm	1	950-202794

Material: 2,0 or 2,5mm Aluminium BS1470 5251-H24 (NS4 H6), conductive finish

### **END PLATE ANGLES**

### Ordering information

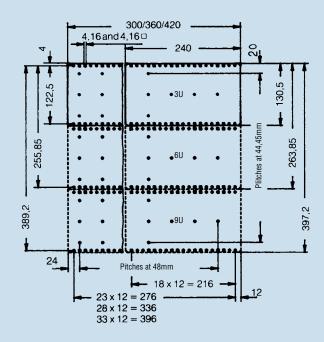
Description	: End plate angles	S	Order code	Order code
Height	Thickness	Qty.	With handle holes	w/out handle holes
3U	2mm	1	950-232632	950-202783
4U	2,5mm	1	-	950-202616
CII	2mm	1	950-232633	950-202784
6U	2,5mm	1	950-232635	950-202785
7U	2,5mm	1	-	950-259287
9U	2,5mm	1	-	950-202786

Note: 6U angles vary according to end plate thickness

Material: Aluminium alloy extrusion BS1474-6063-T6, anodised finish

### End plates and end plate angles

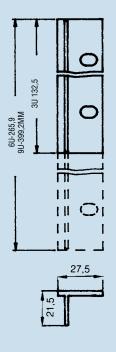
### **END PLATES**



For 4U or 7U dimensions add 44,45  $\,$  to the 3U or 6U height dimensions. 4U and 7U have a row of holes to suit 3U components.

### **CONDUCTIVE FINISH**

### **END PLATE ANGLES**



ANODISED



### **KM6-II FRONT TIE BARS**

KM6-II front tie bars feature a screw fixing system using a unique dowelscrew 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 other types:

PLAIN EMC which has no guide location holes; this extrusion is included in 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).

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.

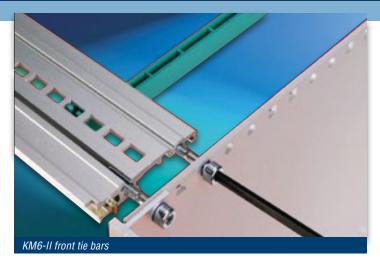
### Contents of kit

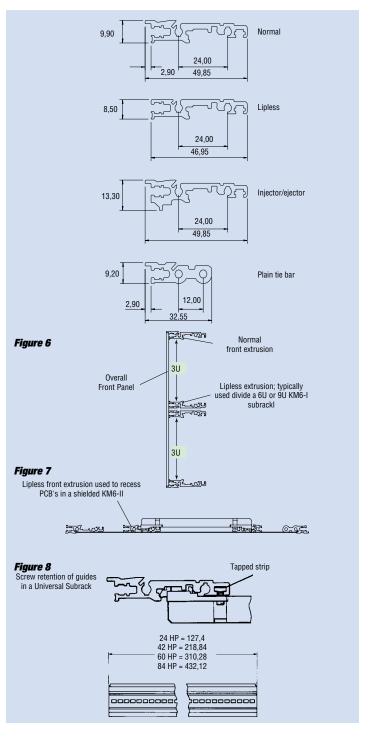
Item/Description	Material/Finish
1 tie bar	Aluminium alloy BS 14746063T6
	conductive clear chromate

### **Ordering information**

Tie bar - top front   1   950-202796	Descri	ption	Qty.	Order code
Tie bar - bottom front   1   950-202795	0.4110	Tie bar - top front	1	950-202796
42HP         Tie bar - bottom front         1         950-202735           60HP         Tie bar - top front         1         950-202743           Tie bar - bottom front         1         950-202742           Tie bar - top front         1         950-202644           Tie bar - bottom front         1         950-202643           84HP         Plain front tie bar         1         950-221909	24HP	Tie bar - bottom front	1	950-202795
Tile bar - bottom front   1   950-202743	40110	Tie bar - top front	1	950-202736
Figure 1         Tie bar - bottom front         1         950-202742           Tie bar - top front         1         950-202644           Tie bar - bottom front         1         950-202643           84HP         Plain front tie bar         1         950-221909	42HP	Tie bar - bottom front	1	950-202735
Tie bar - bottom front         1         950-202742           Tie bar - top front         1         950-202644           Tie bar - bottom front         1         950-202643           84HP         Plain front tie bar         1         950-221909	COUD	Tie bar - top front	1	950-202743
Tie bar - bottom front         1         950-202643           84HP         Plain front tie bar         1         950-221909	оинг	Tie bar - bottom front	1	950-202742
84HP Plain front tie bar 1 <b>950-221909</b>		Tie bar - top front	1	950-202644
		Tie bar - bottom front	1	950-202643
Lipless front tie bar 1 <b>950-233073</b>	84HP	Plain front tie bar	1	950-221909
		Lipless front tie bar	1	950-233073

For tapped strips see Page 34 For fixings see Pages 48





### KM6-II Subracks: Piece parts

### 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 30). 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.

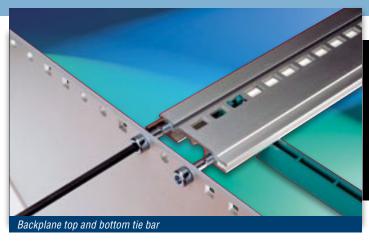
Backplane tie bars can be converted to DIN 41612 by means of a connector mounting frame (see page 34).

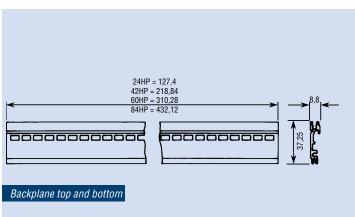
### Contents of kit

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

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 and DIN 41612 conversion see Page 34 For fixings see Pages 48





### 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 page34).

### Contents of kit

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

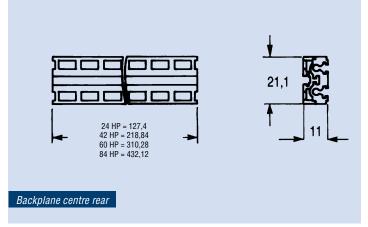
### Ordering information

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 and DIN 41612 conversion see Page 34 For fixings see Pages 48





### TOP AND BOTTOM REAR TIE BARS – DIN 41612 CONNECTOR MOUNTING

KM6-II Top and bottom DIN 41612 connector mounting tie bars are pretapped 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 fixings see Pages 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: Rea	r tie Bars - Din 41612 conne	ctor mounting	
Width	Location	Qty.	Order code
84HP	Top and bottom	1	950-229784

For fixings see Pages 48

# DIN 41612 top and bottom tie bar DIN 41612 centre rear

### TAPPED STRIPS

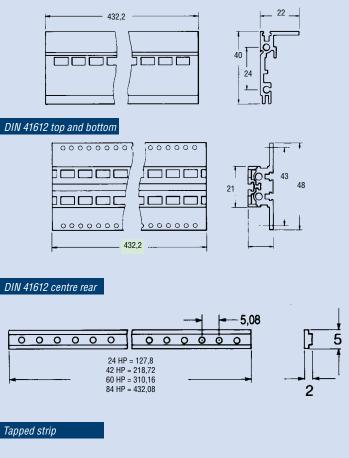
Tapped M2,5 holes on a pitch of 1HP, these strips are used for fixing front panels, backplanes, or as an option for chassis plates. As an alternative to tapped strips, a slide nut suitable for use in front tie bars only can be used where a small number of locations are required.

### Contents of kit

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

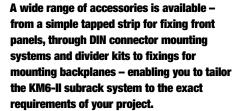
### Ordering information

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









Many products listed in this accessories section are compatible with all APW KM6 variant subrack systems.

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### 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 CONNECTOR MOUNTING FRAME**

- Converts backplane extrusions to DIN 41612 mounting
- Separate assembly and wiring possible
- 3U height
- Various 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	2	950-249491
84HP horizontal extrusions separate kits	2	950-249489

### **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.

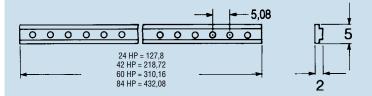
Note: If conductive spacer strips are used in 84HP subracks please order 2 x 42HP spacer strips per tie bar.

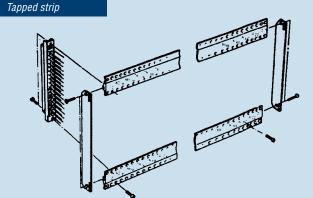
### Contents of kit

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

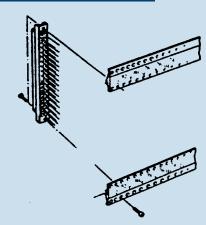
### Ordering information

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

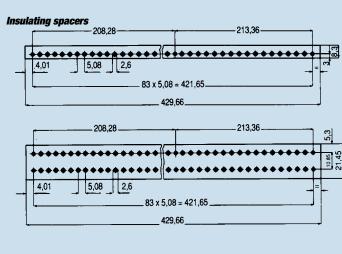




DIN 41612 connector mounting frame



### DIN 41612 connector mounting extrusions





Backplane spacer strips



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USA Tel: 603.821.9921 sales@verotec.us

### 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 35

**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 36.

### Contents of kit

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

### Ordering information

Description: KM6-II Guides - One part

Туре	Application	Board Length	Qty.	Order code
		100 mm	10	950-242850
		160 mm	10	950-232662
1	PCB 1,6mm thick	160 mm	1000	956-243239
		220 mm	10	950-232663
	220 mm	1000	956-243240	
2	DCD 0 Arrana think	160 mm	10	173-232666
2	PCB 2,4mm thick	220 mm	10	173-232667
3	Diversity unit	160 mm	10	950-232664
3	Plug-in-unit	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 2452/1¤, black
Type 6 and 8	Noryl 2452/1¤, green

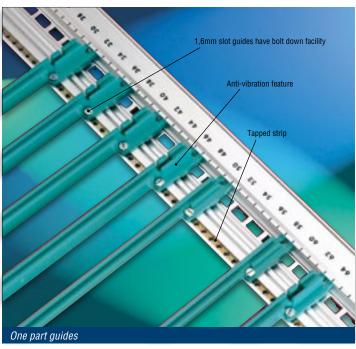
Luranylp 2452/1 is a UL94 VI rated material with a continuous rating of 105°C

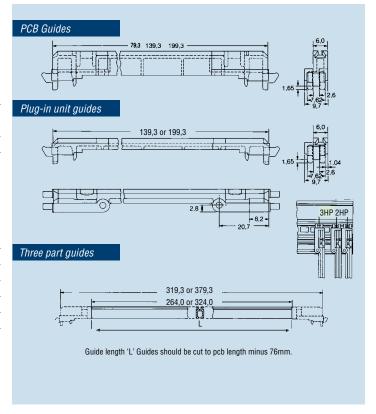
### Ordering information

Description: KM6-II Guides - Three part

Type	Application	<b>Board Length</b>	Qty.	Order code
		280 mm	10	950-276108
5	PCB 1,6mm thick	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 1,6mm thick		10 prs.	950-202636







### **PCB GROUNDING CLIP**

This grounding clip can be inserted into the front or rear of 1,6mm pcb guides in KM6 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  $7m\Omega$ . 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.

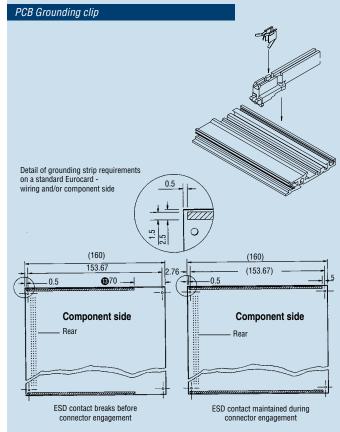
The screw used is M2,5 x 5mm cheesehead, supplied in a packet of 100.

### **Ordering information**

Description: Positive guide retention

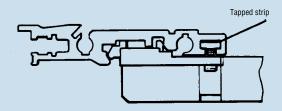
Type	Width	Qty.	Order code
Standard	42HP	1	173-12706
Otanuaru	84HP	1	173-12704
	24HP	1	950-202799
Untransal	42HP	1	950-202739
Universal	60HP	1	950-202740
	84HP	1	950-202001
Security fixing screws	M2,5 x 5	100	173-202579

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



PCB ESD Contact strips top / bottom

### Positive guide retention – tapped strips



Screw retention of guides in a KM6-II subrack

### A range of moulded parts providing additional facilities for 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.

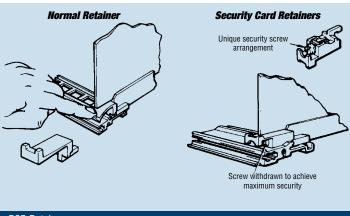
### Contents of kit

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

### Ordering information

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





### PCB Retainers

### **PCB GUIDE NOSE**

- Assists location of PCBs
- Extends existing KM6 PCB guide

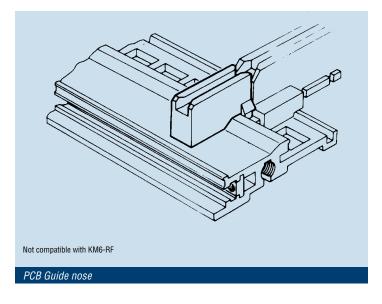
The guide nose fits to standard 1,6 PCB guides, extending their length to within 5mm of the inside face of a front panel. The increased length is especially useful for locating circuit boards in subracks which are above or below eye level. It also provides a purchase point for the operation of certain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



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 of 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 34.

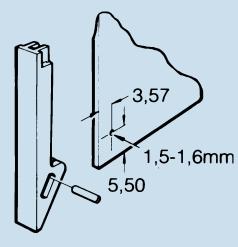
### Contents of kit

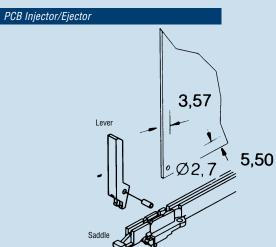
Description	Qty.	Material/Finish
PCB injector/ejector	pk 10 pairs	Glass filled nylon 66
Fixings		

### **Ordering information**

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

### PCB Ejector





Not compatible with KM6-RF subracks

### **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	

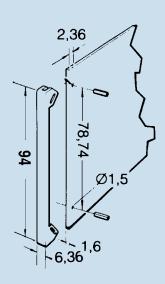
### Ordering information

Description: Flexible card handles

Material	Colour	Qty.	Order code
	Natural	10	21-1884
	Red	10	21-1885
Nylon 66	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

### Flexible card handle





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USA Tel: 603.821.9921 sales@verotec.us

### **GUIDES FOR MOUNTING TO FLAT PLATES**

A range of clip-in guides is available for holding PCB's. These guides can be fitted to simple plates of the appropriate thickness.

### **ANTI-VIBRATION CARD GUIDES**

Moulded-in fingers, occurring at frequent intervals down the length of the card slot act as pressure pads, suitable for board thickness of 1,6mm.

The guides have also been designed to present maximum surface areas resulting in maximum air circulation.

Material thickness is minimum 1,52 mm, maximum 1,78 mm.

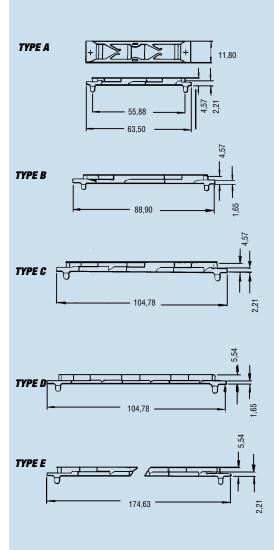
### Contents of kit

Description	Qty.	Material/Finish	
Guide	1	Nylon 66, Black Flammability	
		characteristic UL 94V-2	

### **Ordering information**

TypeFixing hole pitch Fixing hole dia.		pitch Fixing hole dia.	Order code	
A	55,88	3,30 🛨	29-1246 🛈	_
В	76,20	3,30 +	29-1247 🛈	
С	92,08	3,30 +	29-1248 🛈	
D	92,08	3,30 🛨	29-1249 🛈	
E	161,93	3,30 +	29-1251 🛈	

- **(1)** = Denotes minimum order quantity, please contact our sales office.
- ♣ Because of the hygroscopic effect of moisture on Nylon 66 it is recommended that one of the holes should be obround 3,30 x 3,80 to allow for variation in length if used in potentially humid atmospheres.



### **CLIP-IN GUIDES**

### Available in three lengths

A range of guides providing a quick and simple method of circuit board mounting for a wide range of applications.

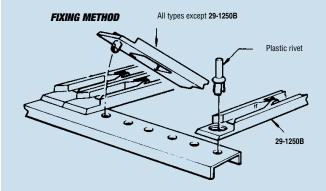
- Suitable for 1,6mm boards
- Simple to fix integral pip gives maximum retention with no further fixings required.
- Tapered guide entry in two planes for ease and accuracy of PCB insertion
- 2mm channel depth gives good card locations without wasted PC area
- Unlimited card spacing
- No special tooling required

### Contents of kit

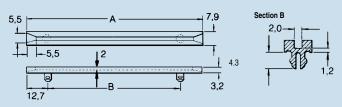
Description	Material/Finish
Clip-in guide	Nylon 66, Black Flammability characteristic UL 94V-2

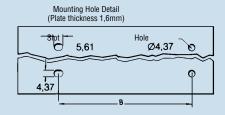
### Ordering information

A	В	Order code
101,6	76,2	29-0122
139,7	76,2	29-0124
177,8	152,4	29-0126



### **CLIP-IN GUIDE DIMENSIONS**

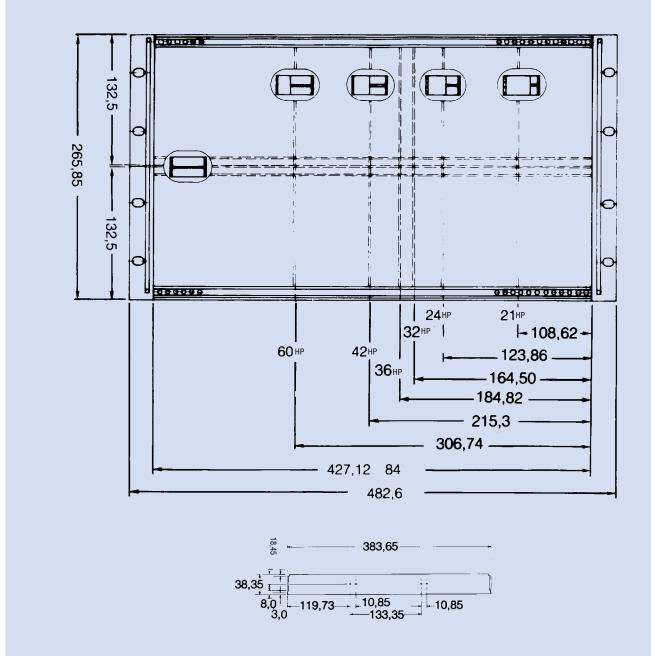




Guides for mounting to flat plates and clip-in guides



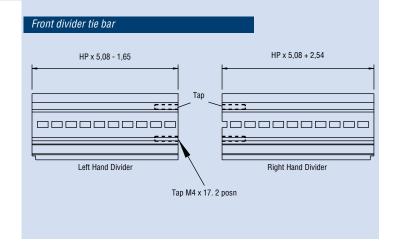
### Dimensional detail - Front dividers



### Non-standard divider extrusions

In order to produce other widths of divider kits, the standard width should be modified as shown.

Please note that the tie bar lengths differ depending upon whether the required divider area is left hand or right hand.



### KM6-II 6U FRONT DIVIDER KITS

KM6-II, front divider kits can be fitted after assembly of the subracks.

For use with 6U subracks, these divider kits provide a useful way to  $\mbox{mix} \mbox{3U}$ and 6U board heights within a unit. The divider section is available in different widths, from 21HP to 84HP, and divides the subrack 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 4 HP width, or greater, at the position immediately to the left of the plate.



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

### KM6-II 9U FRONT DIVIDER PLATE

This plate will divide a 9U subrack into 3U and 6U sections. It should be ordered in conjunction with 6U front divider kits. (The 6U plate is discarded.)

### Ordering information

Description	Order code
9U divider plate	950-202622 <b>(</b> )

**●** = Denotes minimum order quantity, please contact our sales office

### KM6-II LEFT HAND AND RIGHT HAND DIVIDER KIT

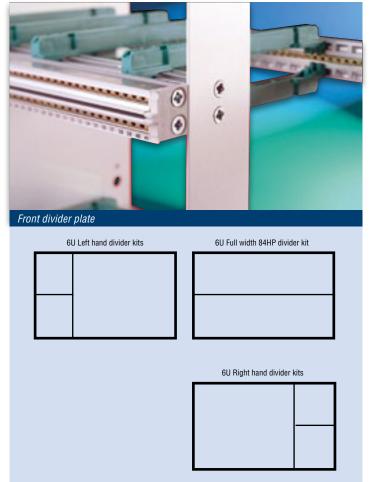
### Ordering information

Description: I	_eft hand divider kit		
Height	Division	Width	Order code
		21HP	950-202604
CII	Lafficación distribuição	24HP	950-202605
6U	Left hand divider kit	42HP	950-202606
		60HP	950-202607
Full width div	ider kit 84HP		950-201275
Description: I	Right hand divider kit		
		21HP	950-202609
		0.4110	050 000640

Doson prion.	riigiit nana aiviaci kit		
		21HP	950-202609
		24HP	950-202610
6U	Right hand divider kit	36HP	950-202615
		42HP	950-202611
		60HP	950-202612
Full width di	ivider kit 84HP		950-201275







1.42

### REAR DIVIDER KITS

Rear dividers shorten the depth of the subrack by 60mm locally at the rear, and are employed when it is necessary to use mixed depth PCBs or modules within a 3U or 6U subrack. **Example:** where 160mm PCBs are required in a frame where the rear extrusions are set for 220mm deep PCBs. Rear dividers can be supplied as listed below (as a 6U kit), or can be configured by using 3U and 6U dividers together with rear tie bars and tapped strips which are available separately.

### Contents of kit

Qty.	Material/finish
2 Aluminium alloy extrusion BS 14746063	
	conductive clear chromate
1	Aluminium alloy extrusion BS 14746063T6,
	conductive clear chromate
1 1,6mm Aluminium alloy BS1470NS4 ½H,	
	conductive clear chromate
Ki	t
	1

### Ordering information

Description	Qty.	Order code
6U x 36HP Right hand divider kit	1	950-203688

### **REAR DIVIDER PLATES**

Rear divider plates are available in both 3U and 6U heights. Rear tie bars, tapped strips, fixing screws etc. should be ordered separately to suit the required width of the divided area. Should non-standard divider widths be required the tie bars can easily be cut to suit (see illustration opposite).

### Contents of kit

Description	Qty	Material/Finish
Divider plate	1	1,6mm Aluminium alloy
		conductive clear chromate
Fixing screws		

### Ordering information

Description	Qty.	Order code
3U Divider plate	1	950-202623
6U Divider plate	1	950-202624

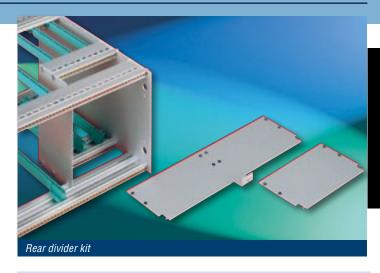
Note: when a 6U divider plate is used a short piece of tapped strip should be fitted into the mid rear tie bar.

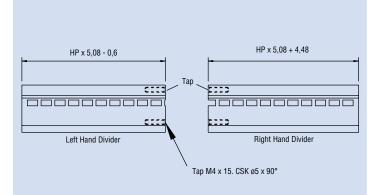
### NON-STANDARD WIDTH REAR DIVIDER EXTRUSIONS

In order to produce other widths of divider kits, a larger, standard width should be modified as shown (see illustration at right). Please note that the tie bar lengths differ depending upon whether the required divider area is left or right handed.

### Order separately

oraci coparatory			
Product	Page		
Rear top/bottom backplane tie bars	31		
Mid rear tie bars	31		
Rear DIN 41612 connector tie bars	32		
DIN 41612 conversions frames/extrusions	34		
Backplane insulation/conductive spacers	34		
Tapped strips	34		
Fixing screws	48		





Rear divider tie bar

### TOP AND BASE COVER KITS

This range of top and base covers are suitable for fitting to both Standard and Universal KM6-II subracks.

Two depths are available for protecting the guide area of 160mm or 220mm  $\,$ boards. The covers are available in ventilated or unventilated versions and can be fitted after the subrack has been assembled. A slot in the rear tie bar captures the cover and plastic clips secure it to the front. The cover can thus be easily removed for access.

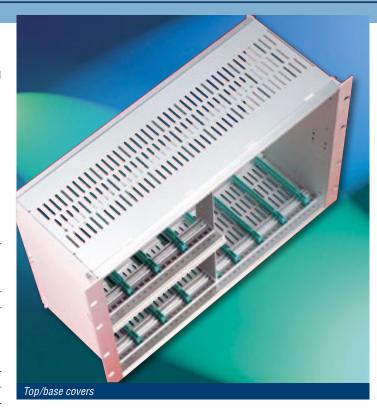
### Contents of kit

Item/Description	Qty.	Material/Finish	
Covers	2	0,9mm aluminium alloy	
		BS14705251(NS4H6)	
		conductive clear chromate	
Cover retaining clips	8	Grey ABS	

### Ordering information

Description: Top and base cover kits

Туре	Card depth	Qty.	Order code
Ventilated	160mm	2	950-202625
	220mm	2	950-202626
Unventilated	160mm	2	950-221913
	220mm	2	950-221914



### **OTHER CONFIGURATIONS**

It is possible on Universal Subracks to use the EMC covers as ordinary covers when the tie bars are set in certain configurations. Call us for details.

### **REAR COVER KITS**

Suitable for both Standard and Universal KM6-II Subracks, these are available in heights of 3U and 6U and are assembled to the endplates. All KM6-II endplates are pre-punched to accept these covers.

The rear cover adds 41mm to the overall depth of a subrack.

### Contents of kit

Description	Qty.	Material/Finish	
Cover	1	0,9mm aluminium alloy	
		BS14705251(NS4H6)	
		conductive clear chromate	
All fixings			

### Ordering information

Description: Rear cover kit	Qty.	Order code
3U rear cover	1	950-202641
6U rear cover	1	950-202642



### 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 Al 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.VO
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

- A. 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.
- B. 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

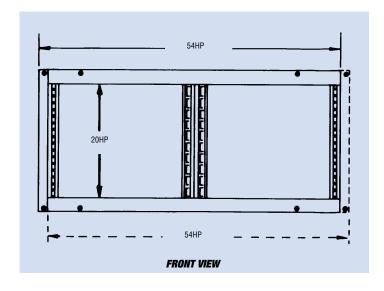
Туре	Depth	Qty.	Order code
Horizontal module	160mm	1	950-202971
	220mm	1	950-202972
PCB guide	160mm	Pk10	950-232662
	220mm	Pk10	950-232663

### KM6-II HORIZONTAL MOUNTING MODULES - ACCESSORIES

### Order separately

Product	Page
Backplane insulation/conductive spacers	34
DIN 41612 Connector mounting frame	34
DIN 41612 Connector mounting extrusions	34
PCB or Module guides (1 or 3 part types)	35
PCB Grounding clips	36
Positive guide retention – tapped strips	36
PCB Retainers and PCB guide nose	37
PCB Ejectors and card handles	38





### **SUBRACK HANDLES**

These handles are identical to those supplied in the KM6-II subrack kit as featured on pages 20 and 22, and offered here as accessories to the KM6 range.

### **Features**

- Stylish modern appearance
- Comfortable hand grip
- Range of sizes

Compatible, pre-drilled 3U and 6U end plate angles are shown on page 29, but other sizes of end plate angle can easily modified to suit application requirements.

### Contents of kit

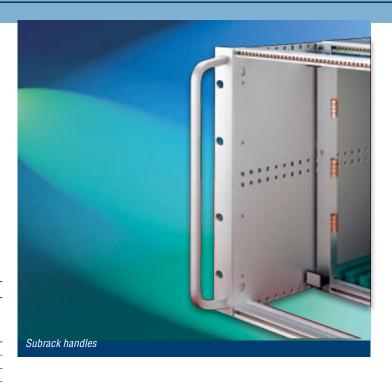
Description	Qty.	Material/Finish
Handle	1	Aluminium alloy E6, Etch and clear anodised

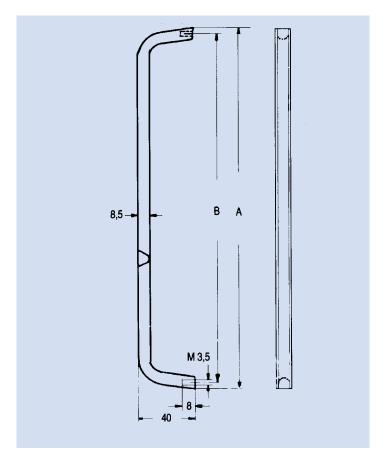
### Ordering information

Height	Α	В	Qty.	Order code
3U	116,3mm	108,3mm	1	50-10117
4U	160,8mm	152,8mm	1	50-10116
6U	249,7mm	241,7mm	1	50-10118
Screw M3, 5 x 10 countersunk head		Pk 10	173-10036	

### Order separately

Description	Page
Fixing screws	Code as above







### REAR HINGED CONNECTOR MOUNTING PANEL

This hinged rear panel provides a means of mounting plugs and sockets, and extends the depth of the subrack by 76,2mm. This extension in depth gives sufficent additional space between the backplane and the rear panel to allow wiring to the connectors.

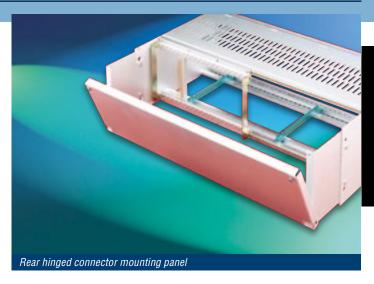
### Contents of kit

Description	Qty.	Material/Finish
Side plates	2	1,6mm aluminium, conductive clear chromate
Rear panel	1	1,6mm aluminium, conductive clear chromate
All fixings		

### Ordering information

Description: Rear hinged panel

Hieght	Width	Order Code
3U	84HP	950-202746



### FRAMING KIT

For applications such as the addition of an overall rear panel or where a subrack is reverse mounted on a wall or electrical panel, for instance, this kit provides an aesthetically pleasing frame.

It is available in three heights, and a standard width of 84HP.

### Contents of kit

Description	Qty.	Material/Finish
Closing angles	2	BS 1474 HE9TF extrusions conductive clear chromate
Plain extrusions	2	BS 1474 HE9TF extrusions conductive clear chromate
Tapped strips	2	MS zinc and colour passivated
Fixing screws	8	

### **Ordering information**

Description: Framing kit

Dimensions	Qty.	Order code
3U x 84HP	1	950-222331
6U x 84HP	1	950-222332
9U x 84HP	1	950-222333



### **CONNECTOR PROTECTION PLATES**

Suitable for 3U/6U subracks, designed to protect connectors and wiring against damage. The plates bolt onto pre-drilled positions on the subrack endplates and add 30mm to the overall depth of the subrack.

### Contents of kit

Description	Qty.	Material/Finish
Plates	2	2,5mm aluminium BS 1470 NS4 1/2H
		conductive clear chromate
All fixings		

### Ordering information

Description	Qty.	Order Code
Connector protection plate	2	950-202751

Note: It is recommended that two kits are used on 6U frames.



### KM6-II CHASSIS SYSTEM

The chassis system offers a method of mounting simple plates into subracks. They can be used for carrying additional components such as power supplies, or for securing wiring etc.

The components of this system are designed for maximum versatility.

The extrusion has an M4 section which will accept hex nuts or screws directly and a section which will accept a KM6-II tapped strip or M2,5 hex nuts and screws. The extrusion is tapped M4 for fixing and our standard subrack kits have additional holes to provide convenient mounting centres.

### Contents of kit

Description	Qty.	Material/Finish
Extrusions	1	aluminium alloy BS1474 6063T6,
		conductive clear chromate

### Ordering information

Description	Unit	Order code
Chassis extrusion, 42HP	each	956-242701 🛈
Chassis extrusion, 60HP	each	956-242702 🐠
Chassis extrusion, 84HP	each	956-242703
Screws M2,5 x 8 hex head	Pk 100	956-243262
Screws M4 x 8 hex head	Pk 100	956-243263
M2,5 hex nuts	Pk 100	27-1319
M4 hex nuts	Pk 100	956-243264
Extrusion fixing screw M4 x 12 pan posi	Pk 100	956-243261

## KM6-II Chassis system

### M4 x 12 WERTICAL CHASSIS PLATE HORIZONTAL CHASSIS PLATE

### **SUBRACK FIXINGS**

### **Ordering information**

Key Function	Type	Qty.	Order code
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
Backplane to backplane extrusion	M2,5 x 8	pk 100	41-227257

