# **Powerlink Plus**





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## PERIMETER AND DISTRIBUTION

Powerlink Plus is a busbar trunking system developed to meet the power and data distribution needs of modern offices, schools and laboratories.

A comprehensive range of unique flush fitting accessories and gently curved covers combine to create a visually unrivalled installation. The system offers flexibility to easily adapt to future needs for the installer.

## Feature benefits

Choice of 3 profiles To suit all your skirting and dado requirements

One-piece corner, couplers and end cap covers Simplifies installation and improves aesthetics

## 63 amp busbar for plug-on accessories and high protective conductor currents compliance

Quick and easy installation, eliminating the requirement for hard wiring

### Unique flush fitting accessories Provide an unobtrusive finish

**Pre-drilled trunking bases** Eliminates the need to measure and drill fixing holes on site thus reducing installation time

## Large data cabling capability in outer compartments

For all your communication and data requirements

## EMC Screening

Provides an effective screen for computer service cables

## Made from 100% PVCu

Powerlink Plus is both robust and easily workable on site

## PRE-WIRED CABLE ASSEMBLY For electrical connection of busbar around corners

ACCESSORY SPACER For mounting accessories as pairs or any number of in-line multiples. One supplied with each 13A socket accessories

### CHOICE OF DELIVERY

With Powerlink Plus the choice is yours - hard wiring or an integral 63 amp busbar with power accessories that simply plug into place



## INTERNAL CORNER Supplied with carrier, busbar shield and outer clipon cover

EXTERNAL CORNER Supplied with carrier, busbar shield and outer clip-on cover

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Powerlink Plus<sup>™</sup> offers a wide selection of flush fitting accessories, including switch sockets, DP switches, connection units and virtually every type of computer and telecom connector. All power accessories are available as plug-on units or with wire in terminals. If that is not enough, an optional mounting kit will accept virtually any accessory within the entire MK range

FLUSH FITTING ACCESSORIES

MCB/RCD Housing mounts directly to central compartment and accepts any one or two module product from the MK Sentry range



COUPLER Joins trunking lengths together and to preassembled angles, crossovers or special corners. Supplied with busbar shield

EMC SCREENING Aluminium screening inserts provide effective screening for computer services cables



END CAP

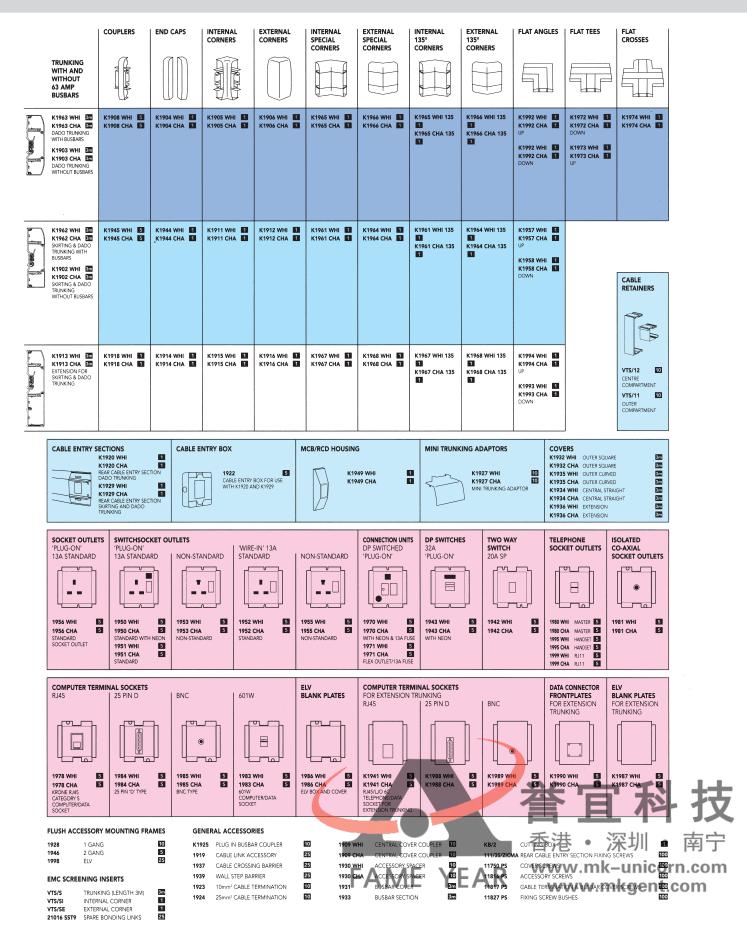
誉宜 科 技 Neatly finishes runs of trunking. Neatly finishes runs of arrier/busbar Supplied with screw fix carrier/busbar 香港 shield and clip-on cover

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# **Product** Selector

### PERIMETER AND DISTRIBUTION



# Technical Data



The Powelink Plus<sup>™</sup> Skirting Dado Trunking System is manufactured in accordance with the requirements of BS 4678: Part 4 and the electrical accessories comply with the relevant requirements of BS 1363, BS 3676 and BS 5733.

Copies of test certificates are available upon request. The system complies with all relevant requirements of the 16th edition of the IEE Wiring Regulations (BS 7671).

Single socket outlets plugged onto a 12mm<sup>2</sup> busbar combine to provide compliance to the Hight integrity Earthing requirements of regulation 607-02-06/07.

#### **CE Marking**

All MK products in this brochure are CE marked, confirmation that they meet the EMC and LV directives.

#### Manufacture

All trunking components are manufactured from PVCu, Carries, extension carries, covers and cable dividers are extruded.

Carrier couplers, internal and external corner carriers, corner covers, stop ends and ELV boxes and plates are formed by injection moulding. Power accessories are moulded from urea formaldehyde.

Flat tees and flat angles are factory prefabricated from the standard PVCu profiles.

Screen products are manufactured from extruded aluminium.

#### Appearance

Powerlink Plus<sup>™</sup> is manufactured in white and charcoal. The extruded components have a standard semi-gloss finish and the mould components have a compatible semi-gloss surface.

The trunking surface can also be painted, if required, after installation to suit a particular client's colour scheme. For further information, please consult MK's Technical Sales Services Department.

## Mechnical Properties

#### Impact Resistance :

Good impact resistance under normal climatic conditions. The Powerlink Plus<sup>™</sup> trunking system satisfies the requirements of BS 4678: Part 4, medium impact classification.

#### **Typical Performanc :**

Charpy notched in	25 KJ/m <sup>2</sup>	
Tensil strength:	at yield	34.62 N/mm <sup>2</sup>
-	at break	42.00N/mm <sup>2</sup>
Density (sg)		1.35 to 1.45 sg

#### **Fire Performance**

The PVCu materials used in th manufacture of MK products are self extinguishing and non-flame propagating in accordance with BS 6099 and BS 4678: Part 4. Extrusion material has been tested by NAMAS accredited laboratory in accordance with the requirements of BS 476: Part 7 and has achieved a Class 1Y classification. Moulding material has been tested by a NAMAS accredited laboratory and confirms with IEC 695-2-1 at a severity of 750°C.

#### **Thermal Properties**

Powerlink Plus<sup>™</sup> trunking is designed to accommodate local thermal expansion. Fitting instruction explain the procedure required to deal with differential movement at the interface with the building fabric.

#### **Coefficient of Linear Expansion:**

 $5.5 \times 10^{-5}$  per °C (5mm/3000mm with a temperature rise of 25°C).Operating temperatures : $-5^{\circ}$ C to 60°CVicat softening point : $75^{\circ}$ CThemal conductivity :0.19W/m/KGlow Wire : $850^{\circ}$ C

#### Ambient Temparture Range

	Min	Max
Handling and storage	-5°C	60°C
During installation	-5°C	60°C
Operating	-5°C	40°C
/		

(Average not to exceed 35°C in any 24 hour period)

#### **Chemical Resistance**

Powerlink Plus<sup>™</sup> trunking is non-corrosive and not affected by sea water.

It has excellent resistance to mineral acids, alkalis and detergents. Good resistance to alcohols but liable to attack from solvents such as keytones, aromatics and hydrocarbons.

#### Electrical

Powerlink Plus<sup>™</sup> trunking is non-conductive.

#### **Dielectric Strength:**

40 Kv/mm in DBP 17 Kv/mm in Tx Oil Resistivity : 10<sup>14</sup>Ω cm

#### **Busbar Rating :**

63A 250V AC Busbar voltage drop L to N 3.47 mV/A/metre run L to E 3.47 mV/A/metre run N to E 3.47 mV/A/metre run Earth Fault Loop Impedance L to E 3.47 milliohms/metre run Conditional short circuit rating (Fuse links BS 88-100A & BS 1361 100A) Prospective current 16.5 kA Mechanical withstand 10.0 kA peak minimum Thermal withstand 1.9 kA for 1 second

#### Biological

Powerlink Plus<sup>™</sup> trunking is resistant to vermin and termites.

#### Workability

Powerlink Plus<sup>™</sup> trunking is lightweight and can be readily cut and drilled with hand tools. A cutting block (List No KB/2) is available for use when cutting lengths of cover.

All covers and accessories are manufactured to fine tolerances to ensire a tight fit with ease of removal.

End cap retention to the carrier is ensured with the unique End Cap Retainer component.

#### Durability

Powerlink Plus<sup>™</sup> trunking is stable and will maintain its performamce characteristics in accordance with the terms and conditions described above.

#### Maintenance

Clip-on covers and interchangeable accessories provide continuous accessibility for reconfiguration, extensions and modifications to an installation.



## Skirting and Dado Trunking System

## **Dimensions (mm)**

The dado trunking is divided into three compartments. Two identical outer compartments are mainly for ELV cables with a third central compartment containing the busbars with a cable way above. The cable carrying capacity can be increased by introducing an extension trunking below the surface track.

**Cross section** 

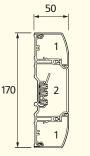
through Skirting

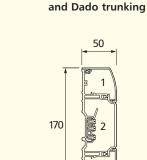
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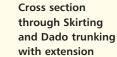
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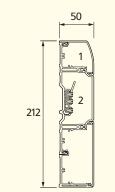
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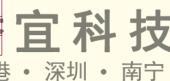


WALL THICKNESS	
Trunking base	2.4mm
Centre compartment cover	2.5mm
Curved cover	1.5mm
Extension cover	2.5mm
Extension base	3.0mm

WEIGHT					
Туре	Number of compartments with screen				
		1	2		
Dado trunking without busbar (1903)	2.4	3.0	3.6		
Dado trunking with busbar (1963)	3.0	3.6	4.2		
Extension trunking (1913)	1.0	2.3	-		

Type of Conductor	Size Cable Facto		Cmpt 1 (curved)			pt 2 hout bar)	Cmpt 2 (with busbar)		Cmpt 3 (square)		Cmpt 4 (extension)		
			Full Term CSA 100% Fill (mm²)										
			943		2968		2528		1044		2685		
			Term at 45% Fill (mm²)										
				424		35	35 1137		469		1208		
Power Cables	5		Numb	oer of C	ables a	t 45% Fi	II						
PVC Stranded 1.5mm <sup>2</sup> 2.5mm <sup>2</sup>	1.5mm <sup>2</sup>	8.6	49		15	55	132		54		140		
	2.5mm <sup>2</sup>	12.6	33		10	)5	90		37		95		
	4mm <sup>2</sup>	16.6	25 20		8	0	6	68	2	28		72	
	6mm <sup>2</sup>	21.2			6	2	53		22		56		
Data Cables			Numb	oer of C	ables a	t 45% Fi	ll (a) ai	nd Full C	Capacity	′ (b)			
			а	b	a	b	а	b	а	b	а	b	
Cat5E UTP	5.5mm dia.	30.2	14	31	44	98	0	0	15	34	40	88	
Cat5E STP	6.0mm dia.	36.0	11	26	37	82	0	0	13	29	33	74	
Cat6E UTP	6.5mm dia.	42.2	10	22	31	70	0	0	11	24	28	63	
Cat6E STP	7.0mm dia.	49.0	8	19	27	60	0	0	9	21	24	-54-	

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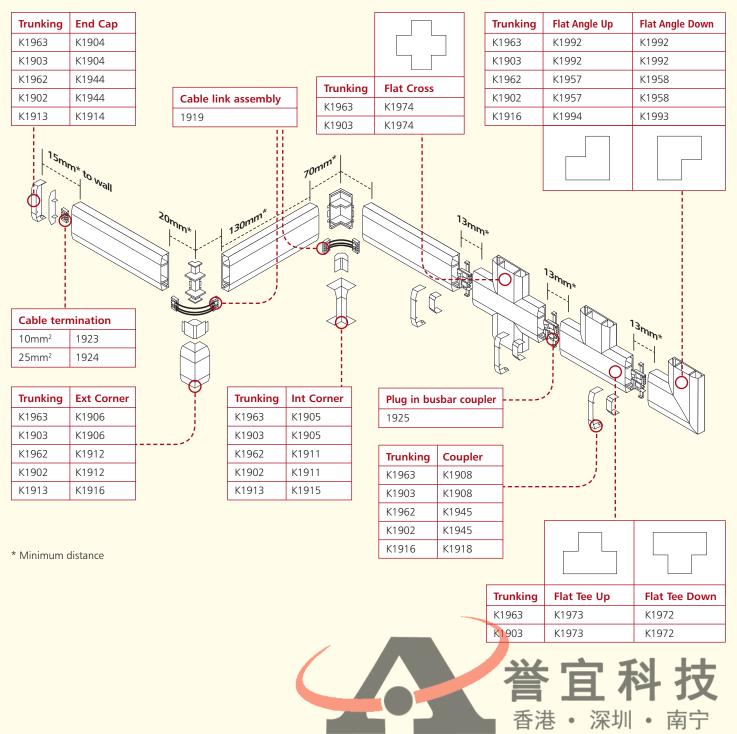
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## Skirting and Dado Trunking System

## Component selection guide



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誉 宜 科 技 集 团 整 合 南宁・深圳・香港-亚太区

誉宜科技官网:www.mkgent.com www.fameyear.com 誉宜科技商城:www.mkelectric.cn www.ca88.cn 誉宜电子商务 邮箱: ic888@live.cn mkgent@live.cn

手机: +86-18666210788 韦先生

FAME YEAR- 深圳市誉宜科技有限公司(誉宜全球技术支持中心) 总机: (+86-755) 83478005-0 MOB:+86-18666210788 韦先生 FAX: (+86-755) 83478005-808 地址: 深圳市福田区滨河大道朗晴馨洲大厦23楼FAME YEAR

FAME YEAR-南宁市誉宜电子科技有限公司(亚太区营销展示物流总部)
总机: (+86-771) 2821300-0 FAX: (+86-771) 2821300-808
地址: 广西南宁市青秀区东盟商务区中柬路利海亚洲国际领峰A座518-FAME YEAR

FAME YEAR- MK&譽宜(香港)有限公司 Fame Year Company Limited. (國際商務聯絡) ADD: 9/F,Far East Consortium Building, 204-206 Nathan Road,Jordan,kowloon TEL: +86-18666210788 (全球通) 韋先生 (國際業務及技術直接咨詢) FAX: (852) 28683626

FAME YEAR 誉宜科技-武汉公司 TEL: 18986017607, 027-82335072 地址: 湖北省武汉市江岸区百步华庭403栋1单元802-Fame Year

