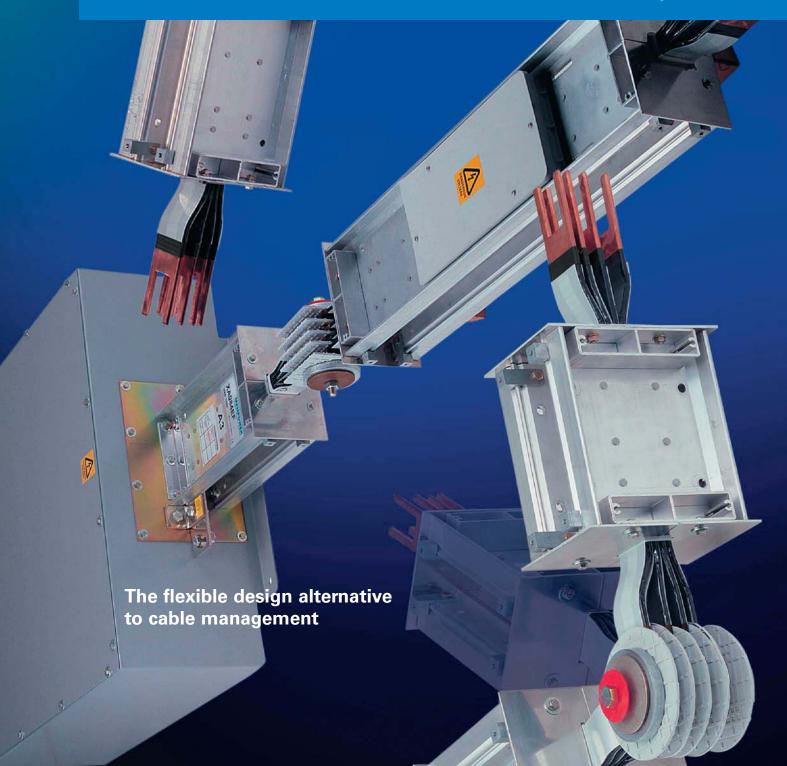


Product Guide

- Medium power range 125–800A
- XP range 500–6300A



Eaton's Electrical operations

As a market-leading manufacturer of circuit protection and control equipment, Eaton's world leading switch and fuse-gear, circuit breaker and wiring accessory products are distributed across the globe. Incorporating the latest technological advances, Eaton products are the result of a comprehensive ongoing development programme and comply with the industry's most rigorous quality standards. This all serves to make Eaton an industry benchmark, with unsurpassed quality and performance guaranteed. This extensive product range, together with a lengthy experience and specialist knowledge serves to make Eaton your first source solutions provider.

Find out more on www.eatonelectrical.com



World-Class Support

At Eaton, our goal is to deliver world-class support as well as products.

This is why we continue to invest in our customer service capability to ensure you have easy access to the services you need, when you need them.

Integrated service strategy

Our integrated service strategy is based upon linking key locations and personnel along with a complete range of services to provide you "one-call" customer service. A central support number allows you to access these support services by selecting the product group and service required. We then ensure it is quickly routed to a qualified support agent. The result is service that delivers you solutions ... fast.

A single point of contact for all your enquiries is just one of the benefits you can look forward to as an Eaton customer.

Services Portfolio

Extensive support services

Our service strategy includes an extensive selection of technical and commercial services designed to help you specify, order and receive products quickly and efficiently.

Price & Availability

- Prompt Product Pricing
- Up-to-date stock availability

Order & Shipment status

- Order Checking and Status
- Shipment details

Technical Support

- "Over the phone" resolution
- Technical data assistance
- Selection and crossreference

After Sales Support

- Debit/Credit note resolution
- Policy Returns support

Project Co-Ordination

- Order tracking for Systems based orders
- On-site Project Management service
- Tailored Delivery service

Engineered Site Services

- Installation and Commissioning
- Maintenance and Service Solution support
- 24 hour "call out" emergency service

Distributor Product Training

- Individual or Group Product training forums
- Use of "In house" training facilities

How to use this Product Guide

Two steps to find your product



Indexes

Search by product name or list number.



Product type index

Eaton list number index

Legend

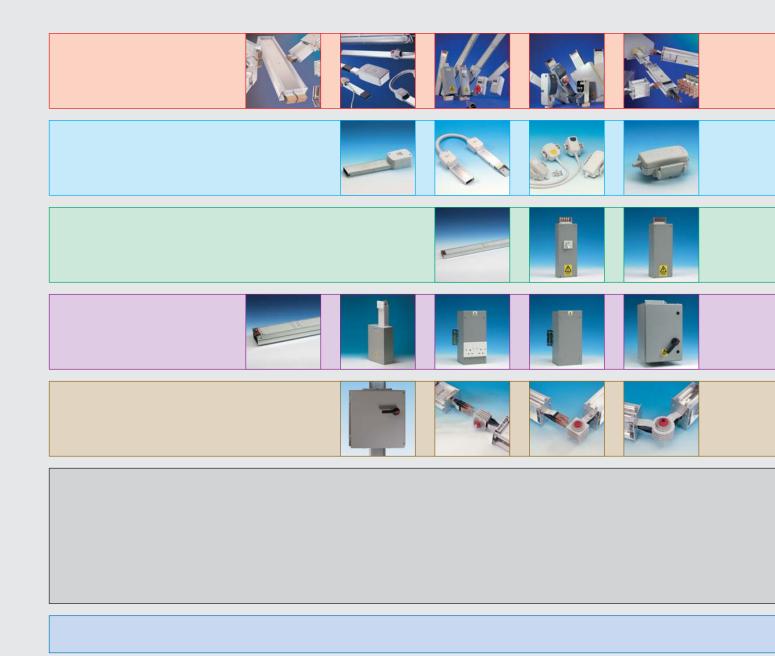
Function of coloured text bars:

Products

Accessories

Technical details, drawings & specifications

Product Guide index



PG01701001U - July 2007

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2	Lux Lighting Range, 25–63A	Lux Lighting	
3	Low Power Range, 40–125A	Low Power Busbar Units	
4	Medium Power Range, 125–800A	 Medium Power Busbar Units Medium Power Tap-off Units Medium Power accessories 13 Medium Power accessories 16 	
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General characteristics

Mempower Busbar Trunking System

Eaton's Busbar Trunking System is the obvious choice when searching for a combination of technical performance and attractive design. Constant development of the range for over 30 years has not only ensured economical and reliable solutions; Mempower has evolved into an unsurpassed range able to adapt to virtually any installation.

Mempower is an integral part of the product offering from Eaton. Complementing Eaton's range of low voltage distribution equipment from packaged substations and LV distribution switchboards to a complete selection of fused switchgear, circuit breaker systems, motor control gear and OEM products.

Mempower Busbar Trunking Systems are thoroughly tested and comply fully with IEC 60439-2. The range extends from 25-6300A with lighting, low, medium and low impedance power versions, together with a wide selection of accessories and tap-off units.

The straightforward and highly styled design makes Mempower Busbar Trunking easy to both install and use - truly the system with style!



The feature-packed Mempower Busbar Trunking System

The advantages of Mempower Busbar Trunking are impressive, hence its popularity in replacing conventional cabling systems.

Not only does its unique design provide a neat and attractive alternative to cable and many other busbar brands, it also ensures flexibility and ease of installation in terms of jointing and fitting. With no requirement for cable trays and complicated terminations, all Mempower ranges are supplied in convenient 3m lengths (alternative lengths if required), which can simply be 'tapped-off' where required. An entire building can be fed from a single riser with no need for expensive and complicated cable runs to each floor. This benefit, along with the ability for single pole applications, fed from a three phase system to load balance, means we can provide both space saving and cost-effective solutions.

The design is completely re-usable and can be easily assembled in any location in the minimum of time, while tap-off devices are located at any required point.

The options of circuit protection are themselves numerous with a comprehensive choice of tap-off devices including fuses (BS, NH, DIN), switch-disconnectors and switch-disconnector-fuses, MCCBs, MCBs, FCSs and BS1363 & BS4343 (CEE17, IEC309) industrial plugs and sockets. Additionally, our wide range of angles and components can be combined to meet layout requirements without compromising on economy or space.

General construction

- Strong aluminium housing; tough moulded extrusion containing rigid copper wires • LUX
- LP, MP Aluminium profile with interlocking flame retardant polyester covers
- XP Aluminium housing, sandwich construction, highgrade insulation

Enclosure

• Degree of protection to BSEN60529 (IEC60529):

IP41 standard; IP55 on request LUX

ΙP IP41 standard

MP IP41 standard; IP54 on request ΧP IP4X standard; IP54 on request

Conductor bars

- | | | | | X Four or six copper conductors
- LP, MP Five copper conductors three phases with separate neutral and earth providing facility for 'clean earth' where required
- XP Extruded copper 2 to 6 bars giving DP, TP, TP & N, TPN & E, TPN & E with 200% neutral

Voltage drop

· Refer to individual range technical data tables for details

Insulation

• Tap-off points and support mouldings on the LP range are moulded polyester classified flammability grade UL-94 V-O with MP & XP ranges being a LSHF grade UL-94-V-O

Conductor joints

· Each length is supplied complete with all components necessary for connection to adjacent lengths or fittings



Protective earth conductor

- LUX Provided by the housing
- LP, MP Separate PE conductor included in the system up to 800A
- XP Provided by the housing; an internal PE conductor can be supplied if required

Straight lengths & fittings

• Supplied as standard in 3m lengths - shorter lengths, angles, intersections and special bends are available on request

Incoming feed arrangements

- Insulated cable end feed box with cable gland LUX
- LP, MP Can be end or centre fed
- XP Transformer and switchboard flange connections plus end feeders for cables can be tailormade to customer requirements

Mounting and supports

- · Mempower lighting trunking can be mounted in any plane, long-face vertical gives maximum strength for luminaire support
- The other ranges can be mounted horizontally or vertically universal mounting brackets are available suitable for wall mounting or suspension

Conductor expansion

· Generally any changes in relative lengths of conductors or housing are accommodated for by movement of the joint links and no special precautions are required

Fire barriers

• Factory fitted internal fire barriers for LP & MP are of the Intumescent Gasket type, 4 hr rated to BS476 Part 20. No internal fire barriers are necessary with XP

Tap-off units

- Insulated plug-in unit for Mempower LUX
- A variety of plug-in tap-off units are available for the LP & MP ranges which are simply clamped into position. LP units are insulated as standard (metalclad available) while MP are metalclad
- XP tap-off units are metalclad to IP54 as standard

Tapping outlets

- · Every 1m along the face of the LUX range; simple plug-in fixing with tapping seal for unused outlets
- For LP & MP, automatic shuttered outlets are provided every 0.33 of a metre on the front face of the busbar. The arrangement of tapping connections and apertures ensures the tap-off units are fitted correctly. XP tapping outlets can be engineered to the required position

Standards

• Mempower busbar trunking conforms to BSEN60439-2, and IEC60439-2





The feature-packed Mempower Lux lighting range, 25-63A

Eaton's Mempower LUX range of lighting trunking is available in 25, 40 and 63A versions. Used mainly for overhead installation it is suitable for all types of commercial lighting and is ideal for use in retail stores, offices and hotels due to its flexibility in creating specific lighting designs.

The aluminium-clad trunking is available in 4 pole and 6 pole configurations with tap-off positions every metre along a standard 3m length. Simple to install, with no requirement for bolting lengths together the range also incorporates a flexible joint to accommodate changes in height or direction. The fused tap-off unit is phase interchangeable on site or at the factory and can be supplied with or without cable ready fitted. A straightforward and highly styled answer to all of your lighting needs.



The feature-packed Mempower low power range, 40–125A

Our low power range covers 40, 63, 80, 100 and 125A ratings. With its attractive appearance and suitability for wall, bench, overhead, or underfloor installation it provides the obvious solution for a wide variety of institutional and commercial applications.

Supplied as standard in 1, 2 and 3m lengths and complemented with a selection of angles and intersections it allows the layout of an installation to be arranged as required. The five bar configuration incorporates separate neutral and earth conductors providing the facility for a 'clean earth' where required. This, along with tap-off outlets every third of a metre and a variety of tap-off units, ensures the most efficient and flexible solution available - ideally suited for offices, banks, computer centres and light industrial applications.



The feature-packed Mempower medium power range, 125–800A

Eaton's Mempower MP system is available in 125, 160, 250, 400, 630 and 800A ratings. Installed primarily in hotels, department stores, hospitals, offices and industrial installations the MP range is often used for vertical risers or as a supply system for the LP range, in addition to traditional overhead applications.

MP busbar trunking is a 5 bar 3-phase system with a separate full neutral and integral earth conductor thereby removing the necessity to depend on the busbar housing for continuity. Adaptable to virtually any design, changes in layout can be accommodated very easily:- a wide variety of angles and intersections are available, tap-off outlets are provided every third of a metre, and tap-off units are simply plugged into position - a popular and well-proven solution for industries where flexibility and adaptability are essential.



The feature-packed Mempower low impedance XP range, 500–6300A

The XP system brings the design of low impedance, sandwich construction busbar trunking to a new superior level. The Mempower XP Trunking System is available in ratings from 500-6300A.

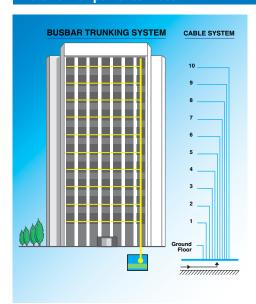
Major innovations have been incorporated into Eaton's Mempower XP system: the velocity joint, velocity angle and radial velocity angle provide additional flexibility up to 2500A.

The velocity joint eliminates the need for additional joint plates between the ends of conductors and simplifies alignment of successive lengths. The velocity angle dispenses with the need for a separate 90° angle joint and the radial velocity angle can be specified where an edge angle is required between 0° and 90° .

An easily assembled cassette type joint is provided for 3200A-6300A ratings.



Eaton's Mempower services



Busbar Vs Cable in Rising main applications

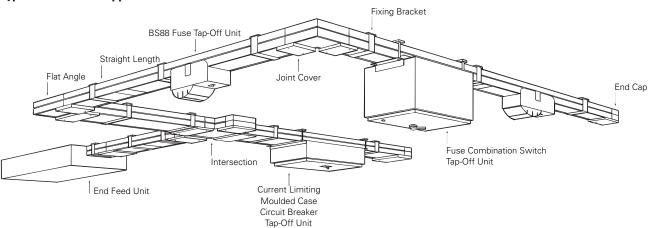
Due to the wide selection of ratings, components and tap-off units offered by the Mempower range our specialised service includes a dedicated Autocad system used specifically for application design.

Eaton would be pleased to advise on any customer requirements, ensuring an accurate and cost-effective solution whatever the installation.

Eaton can offer the following Services:

- 1) Site Measurement Upon receipt of an order an Eaton Engineer will attend site to survey routes and discuss any technical detail or questions that you may have. This service normally applies to Rising Busbar Systems and complex lateral runs where special lengths or angles maybe necessary to complete the project.
- 2) Engineering Drawing Eaton uses the latest Autocad based drawing packages to prepare full working drawings to make installations run smoothly.
- 3) Installation We have an experienced site installation team that will provide competitive pricing for your installation works.
- 4) Commissioning As part of our site services we can also offer the services for testing and commissioning of installations.

Typical Lateral run applications





Lux lighting range, 25-63A

Mempower busbar trunking Lux lighting trunking range

Available in 25, 40 and 63A ratings in both 4 and 6 pole (63A 4 pole, lighting application only - details on request), the LUX range gives a varied choice of trunking lengths and pole configurations. With an IP41 rating (IP55 available) the strong aluminium housing supports both suspended or bolt-on lighting.

The tap-off unit is a simple plug-in arrangement, can be supplied with or without cable fitted and is phase interchangeable - a useful feature of Eaton's Mempower LUX.

A simple push fit electromechanical joint with single screw fixing, reliant on alignment for minimum electrical interference makes installation fast and simple. This is very effective due to its simple method of jointing with flexibility for commercial installations. It is recommended that a universal fixing bracket is used every 2m maximum. The LUX range influences a choice of end feeds, flexible lengths and accessories.

The maximum recommended run length for the Lux product is 99 metres. Where building movement is a consideration, then a flexible joint is recommended every 30 metres to prevent movement of lengths.

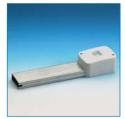


See page 19 for dimensional drawings. See page 20 for technical details.



LUX3425

Lux busbar trunking – straight lengths				
Description	IP rating	Eaton list number 25A	Eaton list number 40A	Eaton list number 63A
4 pole 3m straight length	IP41	LUX3425	LUX3440	LUX3463
4 pole 1m straight length	IP41	LUX1625	LUX1640	LUX1463
6 pole 3m straight length	IP41	LUX3625	LUX3640	_
6 pole 1m straight length	IP41	LUX1625	LUX1640	_



LUX425EF

Description		IP rating	Eaton list number 25A	Eaton list number 40A	Eaton list number 63A
End feed:	4 pole 6 pole	IP41 IP41	LUX425EF LUX625EF	LUX640EF LUX640EF	LUX463EF
Reverse end feed:	4 pole 6 pole	IP41 IP41	LUX425REF LUX625REF	LUX640REF LUX640REF	LUX463REF –
Centre feed:	4 pole 6 pole	IP41 IP41	LUX425CF LUX625CF	LUX640CF LUX640CF	LUX463CF -



LUXT6F

Lux tap-off units – 4 pole				
Description	Phase indicatio	n	IP rating	Eaton list number
6A SP&N fusible, phase selectable	_	_	IP55	LUXT6F
6A SP&N fusible, non phase selectable c/w 800mm cable	Red Yellow	NL1 NL2	IP55 IP55	LUXT6FCR LUXT6FCY
	Blue	NL3	IP55	LUXT6FCB





LUXT6F5P

Lux tap-off units – 6 pole			
Tap-off unit	Phase indication	IP rating	Eaton list number
10A SP&N unfused, c/w 800mm cable	Red NL1 Yellow NL2 Blue NL3	IP55	LUXT10CR LUXT10CY LUXT10CB
10A SP&N unfused, c/w 800mm cable	L4,5	IP55	LUXT10C3P
6A SP&N fusible, phase selectable		IP55	LUXT6F5P
16A SP&N unfused, phase selectable		IP55	LUXT165P



LUX640FJ

General access	sories				
Description		IP rating	Eaton list number 25A	Eaton list number 40A	Eaton list number 63A
End cover		IP55	LUXEC	LUXEC	LUXEC
Universal fixing brad	cket	-	LUXUFB	LUXUFB	LUXUFB
Flexible joint:	4 pole 6 pole	IP41 IP41	LUX425FJ LUX640FJ	LUX640FJ LUX640FJ	- -
Tapping outlet seal		IP55 ¹	LUXOS	LUXOS	LUX0S
Joint cover		IP55 ¹	LUXJC	LUXJC	LUXJC

 $^{^{1}\}mbox{To}$ uprate straight lengths to IP55. Support spacing 3m intervals maximum.

Description	Eaton list number
16A neutral link	LUXNL
Spare fuse connector/carrier	LUXTF
16A fuse carrier	LUXTF16A

Low power range, 40-125A

Mempower busbar trunking system, LP range

Eaton's Mempower LP range is available in 40, 63, 80, 100 & 125A ratings. The attractively styled housing is manufactured from extruded aluminium giving a degree of protection to IP41.

The moulded interlocking covers provide support and insulation for the five copper conductors - 3 phase with separate full size neutral and integral earth conductors. The fifth bar can be specified as a clean earth where required, for example in computer applications.

In these circumstances, the aluminium housing provides a separate protective earth.

Supplied in 3 metre lengths (other lengths available on request) the trunking can be end or centre fed (switched on 40, 63 and 80A) and is supplied complete with connection blocks for jointing to adjacent lengths or fittings. Three positions for tapping are provided in every metre allowing easy access to tap-off locations via a range of switches and overcurrent protective devices which include MCBs, HRC fuses and RCDs. Tap-off units can be provided with BS4343 or BS1363 sockets.



See page 20 for dimensional drawings. See page 22 for technical details.



LP380

LP busbar units – straight lengths				
Description	Rating (A)	Eaton list number		
3m straight length	40	LP340 ¹		
3m straight length	63	LP363 ¹		
3m straight length	80	LP380 ¹		
3m straight length	100	LP3100 ¹		
3m straight length	125	LP3125 ¹		

¹⁾1m and 2m straight lengths, which are engineered on request are available.



LP80EFS

LP busbar units – feed units	s (switched)	
Description	Rating (A)	Eaton list number
End feed	40, 63, 80	LP80EFS
Reverse end feed	40, 63, 80	LP80REFS
Centre feed	40, 63, 80	LP80CFS



LP125EF

LP busbar units – feed units (unswitched)			
Description	Rating (A)	Eaton list number	
End feed	100, 125	LP125EF	
Reverse end feed	100, 125	LP125REF	
Centre feed	100, 125	LP125CF	





LP80FB

LP busbar – general accessories 40A, 63A, 80A	
Description	Eaton list number
Flexible joint 0.66m	LP80FB
Angle flat, right hand	LP80AFRH
Angle flat, left hand	LP80AFLH
Angle inside edge	LP80AIE
Angle outside edge	LP80A0E
Intersection	LP80IS
Outlet seal	LPJC



LP125A0E

LP busbar – general accessories 100A, 125A	
Description	Eaton list number
Angle flat, right hand	LP125AFRH
Angle flat, left hand	LP125AFLH
Angle inside edge	LP125AIE
Angle outside edge	LP125A0E
Intersection	LP125IS
Joint cover/outlet seal	LPJC



LP125UFB

LP busbar – fittings 40A, 63A, 80A, 100A, 125A	
Rating	Eaton list number
End cap	LP125EC
Universal fixing bracket	LP125UFB



LT132MST

LP tap-off units – general accessories

- Tap-off units Protective devices are fitted as standard.
- MCB Miniature Circuit Breaker, RCD Residual Current Device

Description	Protective Device	Rating (A)	No. Poles	Eaton list number
		\ r \		nst number
BS1363 twin socket	_	13 Twin	SP&N	LT113B ¹
Cable terminals	Single pole MCB	10	SP&N	LT110M ¹
Cable terminals	Single pole MCB	16	SP&N	LT116M ¹
Cable terminals	Single pole MCB	32	SP&N	LT132M ¹
Cable terminals	Triple pole MCB	10	TP&N	LT310M
Cable terminals	Triple pole MCB	16	TP&N	LT316M
Cable terminals	Triple pole MCB	32	TP&N	LT332M
Cable terminals Metal enclosure	Triple pole MCB	32	TP&N	LT332MST ²
Cable terminals	Triple pole fused	30	TP&N	LT332F ²
BS4343 socket	Single pole MCB	16	SP&N	LT116MC ¹
BS4343 socket	Single pole MCB	32	SP&N	LT132MC ¹
BS4343 socket	Triple pole MCB	16	TP&N	LT316MC
BS4343 socket	Triple pole MCB	32	TP&N	LT332MC
Cable terminals	SPSN 30mA RCD	25	SPSN	LT125RCD ¹
Cable terminals Metal enclosure	Single pole MCB/RCD	32	SP&N	LT132MST/RCD1

¹Single pole units are supplied for tapping-off a specific phase for the purpose of load balancing. Please specify L1, L2, L3 ie. **LT113B/L1** (Twin 13A socket outlet from L1).

MCBs Type C to BSEN60898 unless otherwise specified.



²Other options available.



Medium power range, 125-800A

Mempower busbar trunking system, MP range

For 125, 160, 250, 400, 630A and 800A applications Eaton's Mempower MP system is the natural extension to the LP range. Assembly of the pre-fabricated units is made easy with the housing offering IP41 protection as standard (IP54e Tin plated versions available on request). The aluminium profile with interlocking, flame retardant moulded covers provide both support and segregation for the five conductors and includes tapping outlets every third of a metre. The fifth bar can be used as a clean earth when specified, in which case the aluminium profile provides a separate protective earth.

A full size neutral is incorporated.

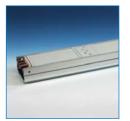
A wide range of metalclad tap-off units including switch disconnectors, fuse units, MCCBs, fuse combination switches and MCBs are available along with a large selection of angles and components.

For riser applications it is recommended that a block bar is fitted every 9 metres and it is fitted integral to the straight length. 630A and 800A have a block bar integrally fitted.

The New 800A version incorporates a new single bolt joint connection facility, complete with a torque set spanner, which preset the connection torque on installation. These torque spanners are available for future maintenance as a separate item. The New 800A joint pack also allows removal of installed lengths without disturbing the rest of the installation, making flexibility lengths much easier.



See page 23 for dimensional drawings. See page 24 for technical details.



MP3400FN

MP busbar units – straight lengths				
Description	Rating (A)	Eaton list number		
3m straight length	125	MP3125F1		
3m straight length	160	MP3160FN ¹		
3m straight length	250	MP3250FN ¹		
3m straight length	400	MP3400FN ¹		
3m straight length	630	MP3630FN ¹		
3m straight length	800	MP3800FNE ¹		

¹ 1m and 2m straight lengths and internal fire barriers which are engineered on request and factory fitted are available.



MP400REFN

MP busbar units - feed units, unswitched

• Switched end feeds available on request.

Description	Rating (A)	Eaton list number
	(6)	list number
End feed	125	MP125EF
End feed	160	MP160EFN
End feed	250	MP250EFN
End feed	400	MP400EFN
End feed	630	MP630EFN
End feed	800	MP800EFNE
Reverse end feed	125	MP125REF
Reverse end feed	160	MP160REFN
Reverse end feed	250	MP250REFN
Reverse end feed	400	MP400REFN
Reverse end feed	630	MP630REFN
Reverse end feed	800	MP800REFNE
Centre feed	125	MP125CF
Centre feed	160	MP160CFN
Centre feed	250	MP250CFN
Centre feed	400	MP400CFN
Centre feed	630	MP630CFN
Centre feed, left hand	800	MP800CFLHFNE
Centre feed, right hand	800	MP800CFRHFNE



MTA113B

MP tap-off units – twin socket outlet tap-off					
Description	Outlet type	Rating (A)	No. of poles	Eaton list number	
Twin socket outlet tap-off	Twin socket	13	SPN	MTA113B1	
30mA RCD twin socket outlet tap-off	Twin socket	13	SPN	MTA113B/L1/RCD ¹	

¹Single pole units are supplied for tapping-off a specific phase for the purpose of load balancing. Please specify L1, L2, L3 ie MTA113B/L1



MTA363B

Description	Outlet type	Rating (A)	No. of poles	Eaton list number
Unswitched BS88 fused tap-off	Cable terminals	6	SPN	MTA106B ¹
Unswitched BS88 fused tap-off	Cable terminals	10	SPN	MTA110B ¹
Unswitched BS88 fused tap-off	Cable terminals	16	SPN	MTA116B ¹
Unswitched BS88 fused tap-off	Cable terminals	20	SPN	MTA120B ¹
Unswitched BS88 fused tap-off	Cable terminals	25	SPN	MTA125B ¹
Unswitched BS88 fused tap-off	Cable terminals	32	SPN	MTA132B ¹
Unswitched BS88 fused tap-off	Cable terminals	40	SPN	MTA140B ¹
Unswitched BS88 fused tap-off	Cable terminals	50	SPN	MTA150B ¹
Unswitched BS88 fused tap-off	Cable terminals	63	SPN	MTA163B ¹
Unswitched BS88 fused tap-off	Cable terminals	80	SPN	MTA180B ¹
Unswitched BS88 fused tap-off	Cable terminals	100	SPN	MTA1100B ¹
Unswitched BS88 fused tap-off	Cable terminals	6	TPN	MTA306B
Unswitched BS88 fused tap-off	Cable terminals	10	TPN	MTA310B
Unswitched BS88 fused tap-off	Cable terminals	16	TPN	MTA316B
Unswitched BS88 fused tap-off	Cable terminals	20	TPN	MTA320B
Unswitched BS88 fused tap-off	Cable terminals	25	TPN	MTA325B
Unswitched BS88 fused tap-off	Cable terminals	32	TPN	MTA332B
Unswitched BS88 fused tap-off	Cable terminals	40	TPN	MTA340B
Unswitched BS88 fused tap-off	Cable terminals	50	TPN	MTA350B
Unswitched BS88 fused tap-off	Cable terminals	63	TPN	MTA363B ^{2b}
Unswitched BS88 fused tap-off	Cable terminals	80	TPN	MTA380B
Unswitched BS88 fused tap-off	Cable terminals	100	TPN	MTA3100B ^{2a}
Unswitched BS88 fused tap-off	Cable terminals	200	SPN	MTA1200B ¹
Unswitched BS88 fused tap-off	Cable terminals	200	TPN	MTA3200B

¹Single pole units are supplied for tapping-off a specific phase for the purpose of load balancing. Please specify L1, L2, L3 ie **MTA106B/L1**²A mounting orientation de-rating factor should be applied when used on continuous load. a) 0.9 mounted horizontal or vertically b) 0.9 mounted vertically c) 0.8 mounted horizontally or vertically.



MTA3100BSW

MP tap-off units – switched	fuse tap-off			
Description	Outlet type	Rating (A)	No. of poles	Eaton list number
Switched BS88 Fused Tap-Off	Cable Terminals	6	SPN	MTA106BSW ¹
Switched BS88 Fused Tap-Off	Cable Terminals	10	SPN	MTA110BSW ¹
Switched BS88 Fused Tap-Off	Cable Terminals	16	SPN	MTA116BSW ¹
Switched BS88 Fused Tap-Off	Cable Terminals	20	SPN	MTA120BSW ¹
Switched BS88 Fused Tap-Off	Cable Terminals	25	SPN	MTA125BSW ¹
Switched BS88 Fused Tap-Off	Cable Terminals	32	SPN	MTA132BSW ¹
Switched BS88 Fused Tap-Off	Cable Terminals	40	SPN	MTA140BSW ¹
Switched BS88 Fused Tap-Off	Cable Terminals	50	SPN	MTA150BSW1
Switched BS88 Fused Tap-Off	Cable Terminals	63	SPN	MTA163BSW ¹
Switched BS88 Fused Tap-Off	Cable Terminals	80	SPN	MTA180BSW1
Switched BS88 Fused Tap-Off	Cable Terminals	100	SPN	MTA1100BSW ¹
Switched BS88 Fused Tap-Off	Cable Terminals	125	SPN	MTA1125BSW ¹
Switched Din Fuse Tap-Off	Cable Terminals	32	SPN	MTA132NSW ¹
Switched Din Fuse Tap-Off	Cable Terminals	63	SPN	MTA163NSW ¹
Switched Din Fuse Tap-Off	Cable Terminals	80	SPN	MTA180NSW ¹
Switched Din Fuse Tap-Off	Cable Terminals	100	SPN	MTA1100NSW ¹
Switched Din Fuse Tap-Off	Cable Terminals	125	SPN	MTA1125NSW ¹
Switched BS88 Fused Tap-Off	Cable Terminals	6	TPN	MTA306BSW
Switched BS88 Fused Tap-Off	Cable Terminals	10	TPN	MTA310BSW
Switched BS88 Fused Tap-Off	Cable Terminals	16	TPN	MTA316BSW
Switched BS88 Fused Tap-Off	Cable Terminals	20	TPN	MTA320BSW
Switched BS88 Fused Tap-Off	Cable Terminals	25	TPN	MTA325BSW
Switched BS88 Fused Tap-Off	Cable Terminals	32	TPN	MTA332BSW
Switched BS88 Fused Tap-Off	Cable Terminals	40	TPN	MTA340BSW
Switched BS88 Fused Tap-Off	Cable Terminals	50	TPN	MTA350BSW
Switched BS88 Fused Tap-Off	Cable Terminals	63	TPN	MTA363BSW ^{2a}
Switched BS88 Fused Tap-Off	Cable Terminals	80	TPN	MTA380BSW
Switched BS88 Fused Tap-Off	Cable Terminals	100	TPN	MTA3100BSW ^{2b}
Switched BS88 Fused Tap-Off	Cable Terminals	125	TPN	MTA3125BSW ^{2a}
Switched Din Fuse Tap-Off	Cable Terminals	32	TPN	MTA332NSW
Switched Din Fuse Tap-Off	Cable Terminals	63	TPN	MTA363NSW
Switched Din Fuse Tap-Off	Cable Terminals	80	TPN	MTA380NSW
Switched Din Fuse Tap-Off	Cable Terminals	100	TPN	MTA3100NSW ^{2a}
Switched Din Fuse Tap-Off	Cable Terminals	125	TPN	MTA3125NSW ^{2c}

¹Single pole units are supplied for tapping-off a specific phase for the purpose of load balancing. Please specify L1, L2, L3 ie **MTA106BSW/L1**



²A mounting orientation de-rating factor should be applied when used on continuous load. a) 0.9 mounted horizontal or vertically b) 0.9 mounted vertically c) 0.8 mounted horizontally or vertically.



MTA363M

MP tap-off units – MCB Type C tap-off					
Description	Outlet type	Rating (A)	No. of poles	Eaton list number	
MCB Type C Tap-Off	Cable Terminals	6	SPN	MTA106M ¹	
MCB Type C Tap-Off	Cable Terminals	10	SPN	MTA110M ¹	
MCB Type C Tap-Off	Cable Terminals	16	SPN	MTA116M ¹	
MCB Type C Tap-Off	Cable Terminals	20	SPN	MTA120M ¹	
MCB Type C Tap-Off	Cable Terminals	25	SPN	MTA125M ¹	
MCB Type C Tap-Off	Cable Terminals	32	SPN	MTA132M ¹	
MCB Type C Tap-Off	Cable Terminals	40	SPN	MTA140M ¹	
MCB Type C Tap-Off	Cable Terminals	50	SPN	MTA150M ¹	
MCB Type C Tap-Off	Cable Terminals	63	SPN	MTA163M ¹	
MCB Type C + BS4343 socket Tap-Off	BS4343 Socket	16	SPN	MTA116MC1 ¹	
MCB Type C + BS4343 socket Tap-Off	BS4343 Socket	32	SPN	MTA132MC1 ¹	
MCB Type C + BS4343 socket Tap-Off	BS4343 Socket	63	SPN	MTA163MC1 ¹	
MCB Type C Tap-Off	Cable Terminals	6	TPN	MTA306M	
MCB Type C Tap-Off	Cable Terminals	10	TPN	MTA310M	
MCB Type C Tap-Off	Cable Terminals	16	TPN	MTA316M	
MCB Type C Tap-Off	Cable Terminals	20	TPN	MTA320M	
MCB Type C Tap-Off	Cable Terminals	25	TPN	MTA325M	
MCB Type C Tap-Off	Cable Terminals	32	TPN	MTA332M	
MCB Type C Tap-Off	Cable Terminals	40	TPN	MTA340M	
MCB Type C Tap-Off	Cable Terminals	50	TPN	MTA350M	
MCB Type C Tap-Off	Cable Terminals	63	TPN	MTA363M ^{2a}	
MCB Type C + BS4343 socket Tap-Off	BS4343 Socket	16	TPN	MTA316MC1	
MCB Type C + BS4343 socket Tap-Off	BS4343 Socket	32	TPN	MTA332MC1	
MCB Type C + BS4343 socket Tap-Off	BS4343 Socket	63	TPN	MTA363MC1	

¹Single pole units are supplied for tapping-off a specific phase for the purpose of load balancing. Please specify L1, L2, L3 ie MTA106M/L1 ²A mounting orientation de-rating factor should be applied when used on continuous load. a) 0.9 mounted horizontal or vertically b) 0.9 mounted vertically c) 0.8 mounted horizontally or vertically.



MTA3125MB

MP tap-off units – MCCB tap-off					
Description	Outlet type	Rating (A)	No. of poles	Eaton list number	
MCCB Tap-Off	Cable Terminals	125A	TPN	MT3125MB ^{1, 2}	
			4P	MT4125MB ^{1, 2}	
		250A	TPN	MT3250MB ^{1, 2}	
			4P	MT4250MB ^{1, 2}	

¹Other options available on request.

²A mounting orientation de-rating factor should be applied when used on continuous load. a) 0.9 mounted horizontal or vertically b) 0.9 mounted vertically c) 0.8 mounted horizontally or vertically.



MTA3200BFS

MP tap-off units – BS88 fused FCS tap-off				
Description	Outlet type	Rating (A)	No. of poles	Eaton list number
BS88 Fused FCS Tap-Off	Cable Terminals	160A	SPN	MTA1160BFS
BS88 Fused FCS Tap-Off	Cable Terminals	200A	TPN	MTA3200B
BS88 Fused FCS Tap-Off	Cable Terminals	200A	SPN	MTA1200BFS ¹
BS88 Fused FCS Tap-Off	Cable Terminals	200A	TPN	MTA3200BFS
BS88 Fused FCS Tap-Off	Cable Terminals	250A	SPN	MTA1250BFS ¹
BS88 Fused FCS Tap-Off	Cable Terminals	250A	TPN	MTA3250BFS
BS88 Fused FCS Tap-Off	Cable Terminals	315A	TPN	MTA3315BFS
-				

¹Single pole units are supplied for tapping-off a specific phase for the purpose of load balancing. Please specify L1, L2, L3 ie MTA1160BFS/L1 Other options available on request.





MP250ISFN

MP busbar units - general accessories

Description	Rating	Eaton
	(A)	list number
Angle flat, right hand	125	MP125AFRH
Angle flat, right hand	160	MP160AFRHFN
Angle flat, right hand	250	MP250AFRHFN
Angle flat, right hand	400	MP400AFRHFN
Angle flat, right hand	630	MP630AFRHFN
Angle flat, right hand	800	MP800AFRHFNE
Angle flat, left hand	125	MP125AFLH
Angle flat, left hand	160	MP160AFLHFN
Angle flat, left hand	250	MP250AFLHFN
Angle flat, left hand	400	MP400AFLHFN
Angle flat, left hand	630	MP630AFLHFN
Angle flat, left hand	800	MP800AFLHFNE
Angle inside edge	125	MP125AIE
Angle inside edge	160	MP160AIEFN
Angle inside edge	250	MP250AIEFN
Angle inside edge	400	MP400AIEFN
Angle inside edge	630	MP630AIEFN
Angle inside edge	800	MP800AIEFNE
Angle outside edge	125	MP125A0E
Angle outside edge	160	MP160A0EFN
Angle outside edge	250	MP250A0EFN
Angle outside edge	400	MP400A0EFN
Angle outside edge	630	MP630A0EFN
Angle outside edge	800	MP800A0EFNE
Flat tee (left or right hand)	125	MP125FT
Flat tee (left or right hand)	160	MP160FTFN
Flat tee (left or right hand)	250	MP250FTFN
Flat tee (left or right hand)	400	MP400FTFN
Flat tee (left or right hand)	630	MP630FTFN
Flat tee (left hand)	800	MP800FTLHFNE
Flat tee (right hand)	800	MP800FTRHFNE
Intersection	125	MP125IS
Intersection	160	MP160ISFN
Intersection	250	MP250ISFN
Intersection	400	MP400ISFN
Intersection	630	MP630ISFN



MP250UFB

MP busbar units - fittings

Description	Rating (A)	Eaton list number
End cover	125, 160, 250	MP250EC
End cover	400, 630	MP630EC
End Cover	800	MP800EC
Reverse end cover	125, 160, 250	MP250REC
Reverse end cover	400, 630	MP630REC
Reverse end cover	800	MP800REC
Universal fixing bracket	125, 160, 250	MP250UFB
Universal fixing bracket	400, 630	MP630UFB
Universal fixing bracket	800	MP800UFB
Joint cover	125, 160, 250, 400, 630, 800	MPJC
Riser support bracket	125, 160, 250	MP250RFB
Riser support bracket	400, 630	MP630RFB
Riser support bracket	800	MP800RFB
Block bar for riser applications	125, 160, 250, 400	MPBB
IP54 outlet seal	125, 160, 250, 400, 630, 800	MPTOS
Internal fire barrier ¹	125, 160, 250	MP250FB
Internal fire barrier ¹	400, 630, 800	MP630FB
Cassette joint torque spanner (pkt 10)	800	MP800SP
800A joint pack (torque spanner included)	800	MP800JPNEX

¹Internal fire barriers are engineered on request and factory fitted.



XP Range, 500-6300A 5

Mempower busbar trunking system, XP range

Complementing the internationally established Mempower Busbar Trunking range, the XP system brings the design of low impedance, sandwich construction busbar trunking to a new, superior level. Eaton's Mempower XP Trunking System is available in ratings from 500 to 6300A.

Mempower XP trunking utilises aluminium-extruded housing bringing significant weight saving advantages whilst ensuring that strength and rigidity is enhanced.

These user-friendly features combine to maximise performance standards and greatly reduce installation times.

Major innovations have been incorporated into the 500-2500A Mempower XP system: the velocity joint, velocity angle and radial velocity angle provide inherent flexibility.

The velocity joint eliminates the need for additional joint plates between the ends of conductors and simplifies alignment of successive lengths. The velocity angle dispenses with the need for a separate 90° angle joint and the radial velocity angle can be specified where an edge angle is required between 0° and 90°.



See page 25 for dimensional drawings. See page 27 for technical details.



Eaton's Mempower XP standard trunking

- Trunking can be supplied with up to 5 tapping outlets on each side of a standard 3m length. However, individual requirements can be catered for.
- The following configurations are offered as standard:

Single Phase & Neutral

Three Phase

Three Phase & 100% Earth Bar

Three Phase & Neutral

Three Phase & Neutral & 100% Earth Bar

Three Phase & 200% Neutral

Three Phase & 200% Neutral & 100% Earth Bar.

- Mempower XP trunking has been designed to make the earth bar a true clean earth on request to complement these configurations.
- · Mempower XP Tap-Off units are designed to provide its customers with the maximum choice of circuit protection devices combined with minimised fitting and removal time.
- Together with the XP trunking 'tapping outlet design' the Tap-Off units ensure ease of fitting or removal. Mechanical and electrical interlocks provide maximum safety, combined with 'earth make first/break last' feature.
- IP ratings are in line with the XP trunking choices from IP4X-IP54.
- Inclusive circuit protection devices range from:

Fusible: 10-800 Amps

Current Limiting MCCB's: 16-1600 Amps

Special enclosures for non-standard applications can be provided.

Note: Above 800A, tap-offs are fixed.



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XP range accessories – velocity joint

- The major innovation of Eaton's Mempower XP range up to 2500A is the velocity joint, which is integral to the main body of the trunking dispensing with the need for a separate joint pack.
- Contact faces of the velocity joint are formed by the conductors which are flared at each end. These slide over one another when offered together to form the completed joint.
- The joint is held central by an insulated single bolt. So that at the correct torque the force generated compresses the joint faces. This design prevents the common problem of joint plates deflecting under the bolt force.
- · Operating efficiency is enhanced by removing the requirement for additional joint plates to bridge the gap between the ends of conductors.





XP range accessories – velocity angle

As an accompaniment to the innovative velocity joint, Eaton has produced two essential additions; the velocity angle and the radial velocity angle. Both utilise the technology developed for the jointing system. The velocity angle allows the installation of an edge elbow without need for a separate elbow unit simply by using two lengths of trunking.



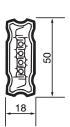
XP range accessories – radial velocity angle

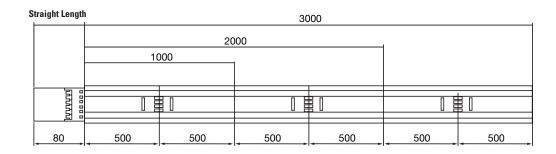
• The radial velocity angle enhances the flexibility of the overall system where an edge angle is required between 0° and 90° removing any requirement for special sections.

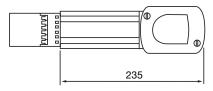


Mempower busbar trunking system technical details

Lux lighting range 25–40A, dimensional drawings



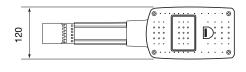


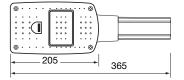


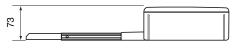


Reverse end feed (25A)

End feed (25A)





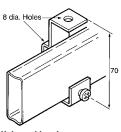


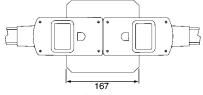
Reverse large end feed (40A, 4 & 6 pole and 63A 4 pole)

Large end feed (40A, 4 & 6 pole & 63A 4 pole)

Lux lighting range 16-63A, technical data

Eaton List No.	Description	Rating (A)	Poles	Terminal size	Dia. Gland cable size	IP Rating	Approx weight (kg)
LUX425EF	Standard End Feed	16 / 25	1P+N+T, 3P+N+T	min. 2.5mm ² - max. 6mm ²	max. 22	55	0.2
LUX625EF	Standard End Feed	25	5P+N+T	min. 2.5mm ² - max. 6mm ²	max. 33	55	0.55
LUX640EF	Standard End Feed	40	3P+N+T, 5P+N+T	min. 2.5mm ² - max. 10mm ²	max. 33	55	0.55
LUX463EF	Standard End Feed	63	3P+N+T	min. 2.5mm ² - max. 16mm ²	max. 33	55	1.2
LUX425REF	Reverse End Feed	16 / 25	1P+N+T, 3P+N+T	min. 2.5mm ² - max. 6mm ²	max. 22	55	0.2
LUX625REF	Reverse End Feed	25	5P+N+T	min. 2.5mm ² - max. 6mm ²	max. 33	55	0.65
LUX640REF	Reverse End Feed	40	3P+N+T, 5P+N+T	min. 2.5mm ² - max. 10mm ²	max. 33	55	0.65
LUX463REF	Reverse End Feed	63	3P+N+T	min. 2.5mm ² - max. 16mm ²	max. 33	55	1.3



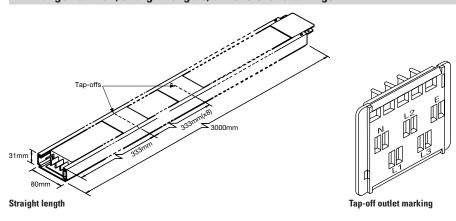


Universal bracket

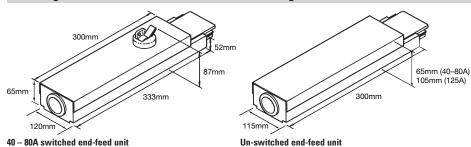
Large centre-feed kit (40A, 4 & 6 pole - end feeds ordered seperately)

Lux lighting range 25-63A, technical data 63A Characteristics 25A 25A 40A 40A TP&N&PE 5P&N&PE TP&N&PE 5P&N&PE TP&N&PE Rated current (A) 25 25 40 40 63 Rated insulation voltage 690 690 690 690 690 Rated operating voltage 415 415 415 415 415 Rated frequency (Hz) 50 50 50 50 50 Cross section (mm²) 3 3 6 8 6 Resistance 20°C (mΩ/m) 5.74 5.74 2.96 2.96 2.18 Impedance (mΩ/m) 7.56 7.56 3.9 3.9 2.87 -5°C to 55°C -5°C to 55°C -5°C to 55°C -5°C to 55°C Operating temp range -5°C to 55°C Voltage drop (Volts/power factor) 6.27 6.27 3.23 3.23 2.38 2600² x 0.15 2800² x 0.12 2800² x 0.12 3400² x 0.12 Short circuit rating – Icw (A) i²t 2600² x 0.15 3.4 – Ka 2.6 2.6 2.8 2.8 Weight per m (kg) - 3P+N+E) 1.85 1.85 1.95 1.95 2.3 - 5P+N+E 1.95 1.95 2.1 2.1 PE casing copper equivalent (mm²) 25 25 25 25 25 Feeder termination blocks (mm²) 4 10 10 16 Tap off outlet capacity (mm²) 2.5 2.5 2.5 2.5 2.5 IP rating - standard 41 41 41 41 41 - with accessories 55 55 55 55 55 Casing material ΑI ΑI ΑI ΑI ΑI Conductors Cu + SnCu + SnCu + SnCu + SnCu + SnTap off conductors Cu + Ag Joint contacts Cu + AgCu + Ag Cu + Ag Cu + AgCu + Ag GF nylon VO Joint moulding material Distance between tap offs (m) - standard 0.5 0.5 0.5 0.5 0.5 Tap off moulding material GF nylon VO GF nylon VO GF nylon VO GF nylon VO GF nylon VO

LP range 40-125A, straight lengths, dimensional drawings

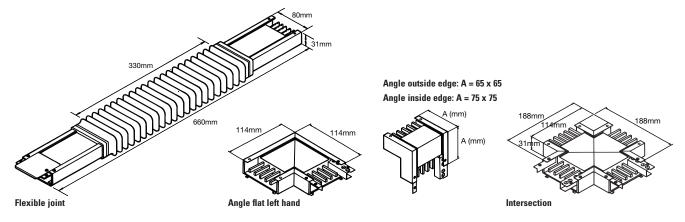


LP range 40-125A, feed units, dimensional drawings

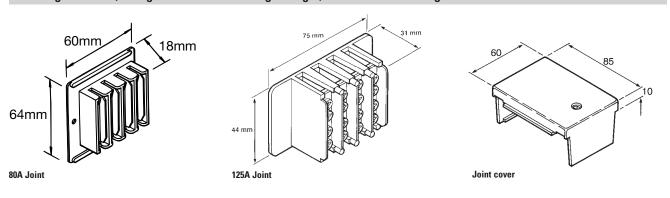




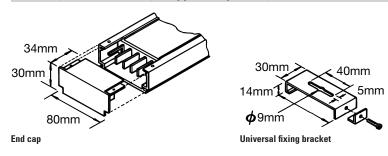
LP range 40-125A, accessories, dimensional drawings



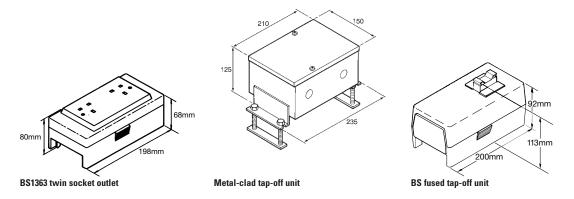
LP range 40-125A, fittings included with straight length, dimensional drawings



LP range 40-125A, fittings supplied seperately, dimensional drawings



LP range 40-125A, tap-off units, dimensional drawings

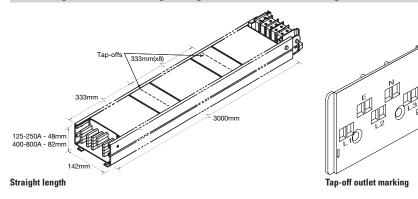


Description	40A	63A	80A	100A	125A
Description	701	UJA	OUA	100A	1234
Rated current [A]	40	63	80	100	125
Rated insulation voltage (Ui) [V.a.c.]	500	500	500	500	500
Short circuit strength					
Rated fused s/c (lcf)	80kA	80kA	80kA	80kA	80kA
Fuse size [A]	40	63	80	100	125
Eaton fuse reference	40SB4	63SB4	80SD5	100SD5	125SF6
conductor c.s.a. [mm2] copper, 5 bar					
– phases	18	18	18	36	36
- neutral	18	18	18	36	36
- PE (earth)	18	18	18	18	18
electrical characteristics of conductor			<u> </u>	-	-
:lectrical characteristics of conductor Phase conductors:	5				
Resistance (R20) [m Ω /m]	0.96	0.96	0.96	0.48	0.48
Reactance [mΩ/m]	0.098	0.098	0.098	0.085	0.085
Impedance (Z20)[mΩ/m]	0.96	0.96	0.96	0.49	0.49
PE (earth) conductor:		0.00	0.00	55	5.10
Resistance [mΩ/m]	0.96	0.96	0.96	0.96	0.96
Reactance [mΩ/m]	0.023	0.023	0.023	0.023	0.023
Impedance [mΩ/m]	0.96	0.96	0.96	0.96	0.96
/olt drop, line-to-line					
[Volts/amp/metre] Power factor 1.0	0.00166	0.00166	0.00166	0.00083	0.00083
0.9	0.00157	0.00157	0.00157	0.00083	0.0003
0.8	0.00137	0.00137	0.00137	0.00077	0.00077
0.7	0.00148	0.00148	0.00143	0.00070	0.00070
	0.00120	0.00120	0.00120	0.0002	0.00002
eeder cable terminal capacity [mm2]	25	25	25	70	70
	25	35	35	70	70
Weight of busbar trunking [kg/m]					
	1.70	1.70	1.70	2.90	2.90
Tap-off positions					
	Every 0.33 me	tre along trunking			
	•				
inclosure degree of protection	IP41				
	1741				
Mechanical loads					
		rithstand normal mech			
	ie. only the loa	ad imposed by the sys	tem, including feeder	and tap-off units	
Support spacing					
	1.5m intervals	maximum			
Standards					
tanuar uə	BSEN60439-2				
	EN60439-2 IEC60439-2				



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MP range 125-800A, straight lengths, dimensional drawings



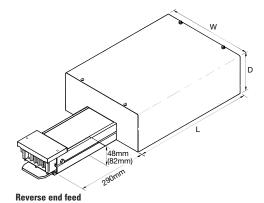
MP range 125-800A, feed units, dimensional drawings

Description	L	W	D
125A, 160A	363mm	142mm	104mm
250A & 400A	500mm	360mm	130mm
630A	600mm	470mm	200mm
800A	700mm	500mm	200mm

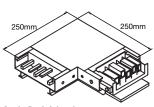
Switched End Feeds (Load Break)

125A	500mm	280mm	115mm
250A	550mm	360mm	160mm
400A	730mm	360mm	165mm
630A	865mm	470mm	205mm
800A	750mm	600mm	200mm

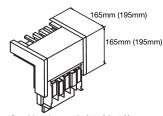
Note: A De-rating factor of 0.95 should be applied to the IP54 switched end feed unit when



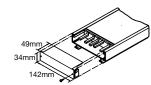
MP range 125–800A, accessories, dimensional drawings



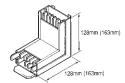




Outside edge angle (125A/250A) Figures in brackets (400A/630A/800A)

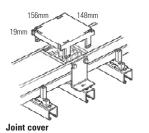


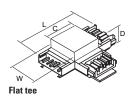
Endcap



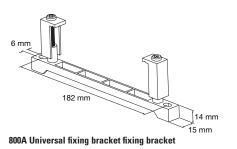
Angle inside edge (125A/250A) Figures in brackets (400A/630A/800A)

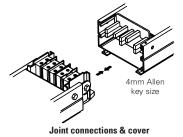
125-630A Universal fixing bracket

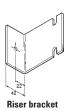




Allips	•		•	•
250A	300mm	225mm	50mm	-
630/400A	520mm	245mm	160mm	280mm
800A	1178mm	600mm	200mm	600mm



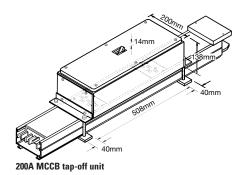


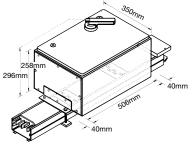


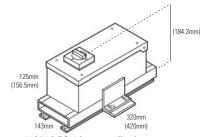
Intersection 125–250A

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MP range 125-800A, tap-off units, dimensional drawings







200A fuse cmbination switch tap-off unit

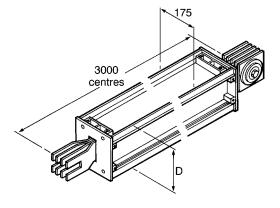
32A/63A BS88 fuse tap-off unit. Figures in brackets 100A

Description	125A	160A	250A	400A	630A	800A
Rated current [A]	125	160	250	400	630	800
Rated insulation voltage (Ui) [V.a.c.]	500	500	500	500	500	500
Chart airead atransit						
Short circuit strength	001.4	80kA	80kA	80kA	80kA	80kA
Rated fused s/c current @ 415V.a.c. (Icf) Fuse size [A]	80kA 125	160	250	400	630	800
Eaton fuse reference	125SF6	160SF6	250SF7	400SF8	630SH9	800SH10
		100010	230017	400010	0000110	00001110
Rated short-time withstand current (Icw)						
- 1 second [kA]	5.1	10.5	11.5	16.5	24.5	25
– peak [kA]	8.7	21	23	35	51.5	52.5
Conductor c.s.a. [mm2] copper, 5 bar						
– phases	28	49	70	140	280	350
– neutral	28	49	70	140	280	350
– PE (earth)	28	28	49	70	140	280
Electrical characteristics of conductors						
Phase conductors:						
Resistance (R20) [m Ω /m]	0.669	0.397	0.296	0.162	0.090	0.079 / 0.088
Reactance (50Hz) [m Ω /m]	0.209	0.148	0.133	0.107	0.087	0.079 / 0.082
Impedance Z20 [mΩ/m]	0.701	0.423	0.325	0.194	0.125	0.112 / 0.120
PE (earth) conductor:						
Resistance [mΩ/m]	0.669	0.669	0.397	0.296	0.162	0.162
Volt drop, line-to-line [Volts/amp/metre] Power factor						
1.0	0.00116	0.00069	0.00051	0.00028	0.000158	0.000180
0.9	0.0012	0.00073	0.000558	0.000333	0.000206	0.000206
0.8	0.00114 0.00107	0.000704 0.000664	0.000548 0.000523	0.000336 0.000329	0.000215 0.000217	0.000204 0.000198
0.7	0.00107	0.00004	0.000323	0.000329	0.000217	0.000130
Feeder cable terminal capacity [mm2]						
– copper cables, standard end feed unit	70	70	150	2 x 95	2 x 185	2 x 240
Weight of busbar trunking [kg/m]						
	4.4	5.0	6.0	9.3	14.0	20
For off monitions						
Tap-off positions	Evon, 0.22	otro along trunkin	ng.			
	Every 0.33 M	etre along trunkir	ıy			
Enclosure degree of protection						
	IP41; IP54 pa	attern available				
Mechanical loads						
			l mechanical load ne system, includ			
Sunnart engeine						
Support spacing	1.5m interva	le mavimum				
	i.om milerva	io maximulli				
Mounting						
	Horizontal, fl	at, or edgewise				
Standards						
	BSEN60439-	2				
	EN60439-2					
	IEC60439-2					



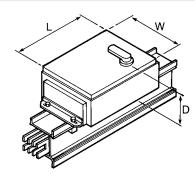
XP range, standard length up to 2500A, dimensional drawings

Rating (A)	D (mm)	
500	125	
800	125	
1000	140	
1200	155	
1350	170	
1600	200	
2000	235	
2500	275	



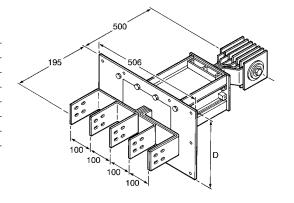
XP range, typical tap-off box, dimensional drawings

PCD	Rating (A)	L (mm)	W (mm)	D (mm)
FCC	1	400	200	200
FCS	63	400	300	200
FCS	100/160	400	300	260
FCS	200	500	500	300
FCS	315/400	700	600	300
FCS	630	900	900	400
MCCB	160	400	300	300
MCCB	200	500	500	300
MCCB	200/250	700	600	300
MCCB	315/400	700	600	300
MCCB	630	900	900	400

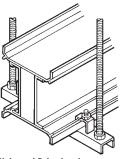


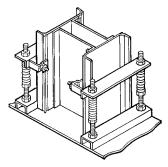
XP range, typical flanged feed up to 2500A, dimensional drawings

Rating (A)	D (mm)	
500	305	
800	305	
1000	305	
1200	305	
1350	305	
1600	365	
2000	365	
2500	365	



XP range, universal fixing bracket and spring hanger, dimensional drawings

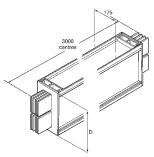




Universal fixing bracket Spring hanger

XP range, standard length 3200A-6300A, dimensional drawings

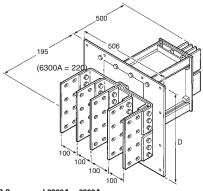
Rating (A)	D (mm)
3200	340
4000	410
5000	490
6300	705



XP straight length 3200A - 6300A

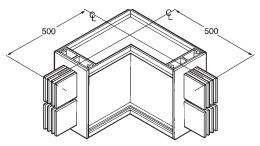
XP range, standard flange 3200A-6300A, dimensional drawings

Rating (A)	D (mm)	
3200	498	
4000	568	
5000	648	
6300	860	

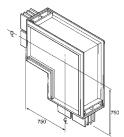


XP flange end 3200A - 6300A

XP range, angles 500A-6300A, dimensional drawings



XP flat angle 500A – 6300A



XP edge angle 3200A – 6300A

Note: 500 - 2500A utilises the overlap joint to create this angle

XP range 500 – 1600A, technical data								
Trunking Size: a) trunking	W x Dmm	175 x 125	175 x 125	175 x 140	175 x 155	175 x 170	175 x 200	
b) overall inc. joint covers	W x Dmm	233 x 147	233 x 147	233 x 162	233 x 177	233 x 192	233 x 222	
Rated Current	Amps	500	800	1000	1200	1350	1600	
Conductors per Phase		1	1	1	1	1	1	
Peak Short Circuit Withstand	kA	84	84	125	150	162	176	
1 sec Short Circuit Withstand	kA	40	40	57	68	74	80	
Rated Insulation Voltage	Ui	1000	1000	1000	1000	1000	1000	
Rated Frequency	Hz	50	50	50	50	50	50	
Phase Conductor CSA	mm2	292	292	382	472	562	742	
Neutral Conductor CSA (std)	mm2	292	292	382	472	562	742	
Double neutral CSA	mm2	584	584	764	944	1124	1484	
PE Conductor (case) CSA	mm2	1782	1782	1872	1962	2052	2232	
Protective Earth Conductor Resistance (CASE)	W/m @ 20°C	0.0000182	0.0000182	0.0000173	0.0000165	0.0000158	0.0000146	
	W/m @ Rt	0.0000222	0.0000222	0.0000212	0.0000202	0.0000194	0.0000178	
PE equiv size % phase @ Rt	%	326	326	283	240	211	174	
Phase Conductor Resistance (R20)	W/m	0.0000692	0.0000692	0.0000529	0.0000428	0.0000359	0.0000272	
Phase Conductor Resistance (Rt)	W/m	0.0000726	0.0000786	0.0000601	0.0000486	0.0000409	0.000031	
Phase Conductor Reactance (X @ 50Hz)	W/m	0.0000351	0.0000351	0.000031	0.0000251	0.0000211	0.0000181	
Phase Conductor Impedance (Z20)	W/m	0.0000776	0.0000776	0.0000613	0.0000496	0.0000416	0.0000327	
Volt-drop L-L concentrated load. For evenly dist	tributed load di	vide by 2.						
pf 1.0	V/A/m	0.000115	0.0001362	0.0001028	0.0000874	0.000072	0.0000565	
pf 0.9	V/A/m	0.000116	0.0001353	0.0001049	0.0000863	0.0000723	0.0000583	
pf 0.8	V/A/m	0.000109	0.000126	0.0000973	0.0000796	0.0000663	0.0000531	
pf 0.7	V/A/m	0.000101	0.0001158	0.0000901	0.0000729	0.0000622	0.0000493	

XP range 2000 – 6300A, technical data							
Trunking Size: a) trunking	W x Dmm	175 x 235	175 x 275	175 x 340	175 x 410	175 x 490	175 x 701
b) overall inc. joint covers	W x Dmm	233 x 257	233 x 297	233 x 362	233 x 432	233 x 512	233 x 725
Rated Current	Amps	2000	2500	3200	4000	5000	6300
Conductors per Phase		1	1	2	2	2	3
Peak Short Circuit Withstand	kA	187	198	220	220	220	220
1 sec Short Circuit Withstand	kA	80	90	100	100	100	100
Rated Insulation Voltage	Ui	1000	1000	1000	1000	1000	1000
Rated Frequency	Hz	50	50	50	50	50	50
Phase Conductor CSA	mm2	952	1192	1484	1904	2384	3576
Neutral Conductor CSA (std)	mm2	952	1192	1484	1904	2384	3576
Double neutral CSA	mm2	1904	2384	2968	3808	4768	7152
PE Conductor (case) CSA	mm2	2442	2682	3012	3432	3912	4830
Protective Earth Conductor Resistance (CASE)	W/m @ 20°C	0.0000133	0.0000121	0.0000119	0.0000096	0.0000084	0.0000068
	W/m @ Rt	0.0000162	0.0000148	0.0000133	0.0000117	0.0000103	0.0000083
PE equiv size % phase @ Rt	%	148	117	116	102	93	
Phase Conductor Resistance (R20)	W/m	0.0000212	0.0000154	0.0000136	0.0000106	0.0000085	0.0000049
Phase Conductor Resistance (Rt)	W/m	0.0000241	0.0000174	0.0000155	0.000012	0.0000096	0.0000063
Phase Conductor Reactance (X @ 50Hz)	W/m	0.0000141	0.0000127	0.0000091	0.000007	0.0000056	0.0000041
Phase Conductor Impedance (Z20)	W/m	0.0000255	0.00002	0.0000164	0.0000127	0.0000102	0.0000064
Volt-drop L-L concentrated load. For evenly dis	tributed load di	vide by 2.					
pf 1.0	V/A/m	0.0000463	0.0000375	0.0000283	0.0000231	0.0000206	0.00000752
pf 0.9	V/A/m	0.0000466	0.0000393	0.000028	0.0000233	0.0000187	0.00000955
pf 0.8	V/A/m	0.000042	0.0000376	0.0000265	0.0000221	0.0000177	0.00000925
pf 0.7	V/A/m	0.0000408	0.0000353	0.0000236	0.0000215	0.0000172	0.00000894
Weight 3 phase 4 bar	Kg/m	45	55	67	83	102	165

Eaton's Mempower LUX busbar trunking system

Typical specification

The lighting trunking in ratings of 25A, 40A and 63A are designed and manufactured to comply with IEC60439-2 and BSEN60439-2 standards and suitable for use at 415V 3 phase 50 Hz.

The lighting trunking complies to a degree of protection IP41, as defined in IEC60529 and BSEN60439-2 and is capable of an advanced level of protection to IP55.

The trunking casing is manufactured from extruded aluminium section and available in 3m and 1m lengths with tapping outlets every 1m along its length on one side. Jointing of the lengths is by a combined mechanical and electrical ridged jointing piece retained by a spring clip and screw. The casing will provide the protective conductor.

The phase and neutral conductors (4 pole or 6 pole) is copper of a suitable size for given 25A, 40A and 63A ratings and all of equal cross-sectional area. They are fully insulated and supported throughout the length of the trunking. The tap-off outlets have protective covers to prevent accidental contact with live conductors.

Fixing brackets are supplied, suitable for suspension or wall mounting of trunking, at given intervals.

Tapping units

Tap-off units are plug-in type and provide suitable protection during connection and disconnection. They are supplied either prewired or with terminals for direct connection. Fused tap-off units are available, rated at 6A or 10A and Un-fused tap-off units are available, rated at 10A or 16A.

Eaton's Mempower LP busbar trunking system

Typical specification

The Busbar trunking in ratings from 40-125A, is of approved manufacture, designed for use as a power distribution system for both commercial and industrial applications. Current ratings shall be as detailed on the drawings/schedules and comply to a degree of protection IP41, as defined in IEC60529 (BSEN60529).

Eaton's busbar trunking system is designed and manufactured to comply fully with IEC60439-2 and BSEN60439-2 standards and suitable for use in a 415V, 3 phase, 4 wire, 50Hz supply. The busbar trunking is ASTA certified and capable of withstanding prospective fault level currents as detailed on the drawings/schedules.

The enclosure is manufactured from shaped extruded aluminium profile with interlocking covers manufactured from Thermoplastic Polyester resin, flammability grade UL94 V-O. The busbar trunking is available in 3m, 2m or 1m lengths with tapping outlets every third of a metre along its length. Each length is complete with mechanical coupling and spring loaded electrical contracts to provide a quality joint automatically.

The conductor bars are square or rectangular hard drawn high conductivity copper as specified in the drawings/schedules and incorporate (five) conductors, one of which is an integral earth conductor which does not rely on the busbar trunking case for earth continuity.

Fire resisting barriers are provided within the trunking where the enclosure passes through fire-rated floor or wall positions. The fire barriers are manufactured from approved intumescent blocks in order to form a barrier of not less than 125mm thick.

Power tap-off points are provided at 333mm intervals on one side of the trunking and are fully shrouded by automatic shutters ("finger-safe") to prevent accidental contact with live parts. The shutters are operated by inserting and removing the tap-off units.

When a change of direction occurs in a busbar run, manufacturers purpose made fittings are used, especially flexible elements to take up elevations in building walls etc.

Fixing brackets are supplied by the manufacturer for suspension, or wall mounting, at a distance of 1.5m unless stated differently in the drawing/schedules.

Tapping Units

Tapping boxes are "plug-in" type fitted with HRC fuses, MCB's, RCB's, or socket outlets (BS1363 or BS4343) as detailed on the drawings/specifications. The tapping boxes are designed and manufactured so that the current carrying conductors are not exposed during insertion or removal.

The tapping box enclosures are manufactured from reinforced Thermoplastic Polyester resin, flammability grade UL94 V-O.

A safety device is fitted to ensure non-reversibility when connecting to the Busbar.



Eaton's Mempower MP busbar trunking system

Typical specification

The busbar trunking in ratings from 125-800A, is of approved manufacture, designed for use as a rising main and horizontal power distribution system for both commercial and industrial applications. Current ratings are as detailed on the drawings/schedules and comply to a degree of protection IP41, as defined in IEC60529 (BSEN60529) and capable of an advanced level of protection to IP54.

Eaton's busbar trunking system is designed and manufactured to comply fully with IEC60439-2 and BSEN60439-2 standards and suitable for use in 415V, 3 phase, 4 wire, 50Hz supply. The busbar Trunking is ASTA certified and capable of withstanding prospective fault level currents as detailed on the drawings/schedules.

The enclosure is manufactured from shaped extruded aluminium profile with interlocking Low Smoke Halogen Free covers, flammability grade UL94 V-O. The busbar trunking is available in 3m, 2m or 1m lengths with tapping outlets every third of a metre along its length. Each length is complete with mechanical coupling in order to provide a quality electro-mechanical joint.

The conductor bars are square or rectangular hard dawn high conductivity copper as specified in the drawings/schedules and shall incorporate (five) conductors, one of which will be an integral earth conductor and does not rely on the busbar trunking for earth continuity.

Fire resisting barriers are provided within the trunking where the enclosure passes through fire-rated floor or wall positions. The fire barriers are manufactured from approved intumescent blocks in order to form a barrier of not less than 125mm thick.

Power tap-off points are provided at 333mm intervals on one side of the trunking and are fully shrouded by automatic shutters ("finger safe") to prevent accidental contact with live parts. The shutters are operated by inserting and removing the tap-off units.

When a change of direction occurs in a busbar run, manufacturers purpose made fittings shall be used.

Fixing brackets are supplied by the manufacturer for suspension or wall mounting at a distance of 1.5m unless stated differently in the drawings/schedules.

Tapping Units

Tapping boxes are "plug-in" type fitted with HRC fuses, MCB's, MCCB's, Switch fuses, Fuse Combination (FCS) units or socket outlets (BS4343) as detailed on the drawings/specifications.

The tapping boxes are designed and manufactured so that the current carrying conductors are not exposed during insertion or removal, and the unit is connected to earth before contact is made with the line busbar conductors. The unit remains earthed during removal until all live connections are disconnected.

The tap off units have an interlocked door with suitable rotary operating mechanism. Fused tapping units contain three fuse carriers suitably rated to accept fuse links. The tapping units will have a hinged door with internal live contact protection.

The tapping box enclosures are manufactured from 1.5mm sheet steel, with a light grey paint finish. Tapping boxes are provided complete with integral flexible cables terminating in a purpose made shrouded copper connection, complete with electro-tin plated plugs for attachment to the busbar without drilling or clamping.

A safety device is fitted to ensure non-reversibility when connecting to the busbar.

Eaton's Mempower XP busbar trunking system

Typical Specification

The busbar trunking in ratings from 500-6300A, is of approved manufacture, designed for use as a rising main and horizontal power distribution system for both commercial and industrial applications. Current ratings are as detailed on the drawings/schedules and comply to a degree of protection IP41, as defined in IEC60529 (BSEN60529) and capable of an advanced level of protection to IP54.

Eaton's busbar trunking system is designed and manufactured to comply with IEC60439-2 and BSEN60439-2 standards and suitable for use in 415V, 3 phase, 4 wire, 50Hz supply, taking into consideration the requirements of BS 7671 (IEE Wiring Regulations). The system is supplied as factory assembled units, which are rigid in construction and symmetrical in appearance.

Trunking section ends are asymmetrical in order to prohibit phase reversal of adjacent sections. The joint between adjacent trunking lengths rated from 500-2500A is formed by overlapping the conductors. Whereas the joint between adjacent trunking lengths rated from 3200-6300A is formed by a removable joint pack. Insulator plates are provided within the joints to isolate each phase conductor joint. With all exposed plastic components made from Low Smoke Halogen Free material, flammability grade UL94 V-O. The integral joint and busbar construction form a combined structure sufficiently rigid to be supported on specified centres

Deforming the Busbar casing shall not compromise joint integrity. The Busbar casing has no ventilating openings. Horizontal or vertical hangers are provided as required. Feeder, Distribution and Rising Mains section are interchangeable.

A non-shuttered outlet version is available as standard and are finger safe (IP2X) to prevent accidental contact with live parts. As standard this tap off outlet style is supplied with a screw fixed cover giving upto IP54 protection.

On request a tap off outlet with an integral shutter that will automatically open upon fitting of a tapping unit is also available. It is possible to position tap off outlets to the customers specification. These tap off outlets meet IEC60529 (BSEN60529) IP4X requirements without the need for an additional screw fixed cover. These tap off outlets are also available to IP54 requirements incorporated in IP54 Distribution trunking.



Tap off outlets are available both sides of the Distribution trunking up to four per 3m length. Tap off outlets are located on one side for the Rising Mains trunking. The housing is extruded aluminium section custom-designed for the system.

All additional fixings and fittings are plated for corrosion resistance. The busbar is suitable for the following uses: IP4X Feeder/Distribution and IP54 Feeder/Distribution. The maximum operating temperature complies with above standards in any position at its rated current and level of protection.

Joints

Electrical joints up to 2500A are accomplished through a single-bolt joint connection. A two-headed joint bolt is utilized to provide a one-time torque indication on installation. The joint bolt provides an easily detected visual indication that the bolt has been tightened to the specified torque. Inspection joint covers are provided to permit periodic joint examination without disturbing joint pressure or reducing the Busbars ability to be supported on specified centres. It is possible to remove a section of busbar without disturbing adjacent sections. Disc spring washers are used at the joint to uniformly distribute pressure. The disc spring washers also accommodate the thermal expansion of the busbars and housing at this position. From 3200-6300A the joint pack utilizes the same two-headed joint bolt system. The joint design allows for a minimum adjustment of plus or minus 5mm in length to allow for installation variations.

Busbars

Busbars are fabricated from electrical grade Copper (C101 BS1432/1433). Plated bars shall be provided where specification requires. The busbar Trunking is ASTA certified and capable of withstanding prospective fault level currents as detailed on the drawings/schedules. Busbars are insulated with a 130 degrees C (Class B material) insulation except at joints and tap off positions. The construction ensures that busbar spacing is held to a minimum reducing reactance. The design of the system ensures that differential expansion between adjacent bars, or between bars and casing is accommodated within the length. The aluminium housing will serve as an integral earth conductor. With optional variations of: a 200% rated neutral can be provided which is entirely contained within the busbar housing, a 100% rated earth bar can be provided which is entirely contained within the busbar housing and a 100% rated isolated earth (clean earth) can also be provided which is entirely contained within the busbar housing.

Tapping Units

Tapping units are "plug-in" type fitted with MCCB's and Fuse-Switch Disconnectors as detailed on the drawings/specifications. Fuse-switch tapping units will contain a double-break switch disconnector conforming to BS EN60947-3 and suitably equipped to accept fuse links.

The tap off units have an interlocked door with suitable rotary operating mechanism. Fused tapping units contain three fuse carriers suitably rated to accept fuse links. The tapping units will have a hinged door with internal live contact protection.

The tapping boxes are designed and manufactured so that the current carrying conductors are not exposed during insertion or removal, and the unit is connected to earth before contact is made with the line busbar conductors. The unit remains earthed during removal until all live connections are disconnected.

The tapping box enclosures are manufactured from 1.5mm sheet steel, with a light grey paint finish. Tapping boxes are provided complete with integral flexible cables terminating in a purpose made shrouded copper connection, complete with electro-tin plated plugs for attachment to the busbar without drilling or clamping.

Tapping units are designed so that all accessories required to attach the unit to the trunking are captive. Switched Tapping units are of the safety type, so interlocked with the trunking housing that they cannot be added or removed unless the switching mechanism is "OFF". As standard this electrical interlock is not fitted unless requested.

A safety device is fitted to ensure non-reversibility when connecting to the busbar.

Switched Tapping units are equipped with highly visible red/green indicator to indicate "ON/OFF" position of the switching mechanism. The "ON/OFF" indicator also uses the international symbols for identifying "ON" (I) and "OFF" (O).



Product type index

LP busbar - fittings 40A, 63A, 80A, 100A, 125A
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MP busbar units - fittings

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	LUXTF16A	. 9	MP800UFB
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25A0E			MPJC
25CF	MP125AFLH	10	MPTOS
			IVIP103
25EC	MP125AFRH		
25EF	MP125AIE	16	MT3125MB
25IS	MP125A0E		MT3250MB
25REF	MP125CF		MT4125MB
25UFB	MP125EF	12	MT4250MB
100	MP125FT	16	MTA106B
125	MP125IS		MTA106BSW
40	MP125REF		MTA106M
63	MP160AFLHFN	16	MTA1100B
80	MP160AFRHFN	16	MTA1100BSW
)AFLH	MP160AIEFN		MTA1100NSW
AFRH11	MP160A0EFN		MTA110B
AIE	MP160CFN	12	MTA110BSW
AOE11	MP160EFN	12	MTA110M
ICFS	MP160FTFN		MTA1125BSW
DEFS	MP160ISFN	16	MTA1125NSW
IFB	MP160REFN		MTA113B/L1/RCD
			- , , -
IS	MP250AFLHFN		MTA113B
REFS	MP250AFRHFN	16	MTA1160BFS
	MP250AIEFN	16	MTA116B
	MP250A0EFN		MTA116BSW
OM11	MP250CFN	12	MTA116M
3B	MP250EC	16	MTA116MC1
6M11			
	MP250EFN		MTA1200B
6MC	MP250FB	16	MTA1200BFS
5RCD	MP250FTFN	16	MTA120B
2M	MP250ISFN.		MTA120BSW
2MC11	MP250REC	16	MTA120M
2MST/RCD	MP250REFN	12	MTA1250BFS
DM	MP250RFB		MTA125B
6M11	MP250UFB	16	MTA125BSW
6MC	MP3125F	12	MTA125M
2F2	MP3160FN		MTA132B
2M11	MP3250FN		MTA132BSW
2MC	MP3400FN	12	MTA132M
2MST211	MP3630FN		MTA132MC1
I	MP3800FNE		
			MTA132NSW
	BALLACO ALLIUM	16	MTA140B
089	MP400AFLHFN		
9	MP400AFRHFN	16	MTA140BSW
4638	MP400AFRHFN		
463 8 1625 8	MP400AFRHFNMP400AIEFN	16	MTA140M
463 8 1625 8 1640 8	MP400AFRHFN	16 16	MTA140M
463 8 625 8 640 8	MP400AFRHFNMP400AIEFN	16 16	MTA140M
463 8 625 8 640 8 425 8	MP400AFRHFN. MP400AIEFN MP400AOEFN. MP400CFN	16 16 12	MTA140M MTA150B MTA150BSW
463 8 625 8 640 8 1425 8 1440 8	MP400AFRHFN. MP400AIEFN MP400AOEFN. MP400CFN MP400EFN	16 16 12 12	MTA140M MTA150B MTA150BSW MTA150M
463 8 625 8 640 8 425 8 440 8 463 8	MP400AFRHFN. MP400AIEFN MP400AOEFN. MP400CFN MP400EFN MP400FTFN	16 16 12 12 16	MTA140M MTA150B MTA150BSW MTA150M MTA163B
463 8 625 8 640 8 425 8 440 8 463 8	MP400AFRHFN. MP400AIEFN MP400AOEFN. MP400CFN MP400EFN	16 16 12 12 16	MTA140M MTA150B MTA150BSW MTA150M
463 8 625 8 640 8 425 8 440 8 463 8 625 8	MP400AFRHFN. MP400AIEFN MP400AOEFN. MP400CFN MP400EFN MP400FTFN MP400ISFN.	16 16 12 12 16 16	MTA140M MTA150B MTA150BSW MTA150M MTA163B MTA163BSW
463 8 625 8 640 8 4425 8 4440 8 4463 8 6625 8 6640 8	MP400AFRHFN. MP400AIEFN MP400AOEFN. MP400CFN MP400EFN MP400FTFN MP400ISFN. MP400REFN	16 16 12 12 16 16 12	MTA140M MTA150B MTA150BSW MTA150M MTA163B MTA163BSW MTA163M
463 8 625 8 640 8 425 8 440 8 463 8 625 8 640 8 25CF 8	MP400AFRHFN. MP400AIEFN MP400AOEFN. MP400CFN MP400FFN MP400FTFN MP400ISFN. MP400ISFN. MP400AFFN MP400AFFN MP400AFFN MP400AFFN	16 16 12 12 16 16 16 12	MTA140M MTA150B MTA150BSW MTA150M MTA163B MTA163BSW MTA163M MTA163MC1
463 8 625 8 640 8 4425 8 4440 8 4663 8 6625 8 6640 8 1250F 8	MP400AFRHFN. MP400AIEFN MP400AOEFN. MP400CFN MP400EFN MP400FTFN MP400ISFN. MP400REFN	16 16 12 12 16 16 16 12	MTA140M MTA150B MTA150BSW MTA150M MTA163B MTA163BSW MTA163M
463 8 625 8 640 8 4425 8 4440 8 4663 8 6625 8 6640 8 425CF 8 425EF 8	MP400AFRHFN. MP400AIEFN MP400AOEFN. MP400CFN MP400EFN MP400FTFN MP400ISFN. MP400ISFN. MP400REFN MP630AFLHFN MP630AFRHFN	16 16 12 12 16 16 12 16 16	MTA140M MTA150B MTA150BSW MTA150M MTA163B MTA163BSW MTA163BSW MTA163M MTA163MC1 MTA163MC1
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463 8 625 8 640 8 425 8 440 8 463 8 625 8 640 8 25CF 8 25EF 8 25FJ 9 25REF 8 63CF 8	MP400AFRHFN. MP400AIEFN MP400AOEFN. MP400CFN MP400FFN MP400FFN MP400ISFN. MP400REFN MP630AFLHFN MP630AFLHFN MP630AIEFN	16 16 12 12 16 16 16 12 16 16 16 16	MTA140M MTA150B MTA150BSW MTA150M MTA163B MTA163BSW MTA163MSW MTA163MC1 MTA163MC1 MTA163NSW MTA180BSW MTA180BSW MTA180BSW
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463 8 625 8 640 8 425 8 440 8 463 8 625 8 640 8 25CF 8 25EF 8 25FJ 9 25REF 8 63CF 8 63EF 8 63REF 8 25CF 8	MP400AFRHFN. MP400AIEFN MP400AOEFN. MP400CFN MP400EFN MP400ISFN. MP400ISFN. MP400ISFN. MP630AFLHFN MP630AFLHFN MP630AFRHFN. MP630AFRHFN MP630CFN MP630CC MP630EFN MP630FB	16 16 12 12 16 16 16 16 16 16 16 16 16 12 16 16	MTA140M MTA150B MTA150BSW MTA150M MTA163B MTA163BSW MTA163M MTA163MC1 MTA163NSU MTA163NSW MTA180B MTA180BSW MTA180BSW MTA180BSW MTA306BSW MTA306BSW MTA306M
463 8 625 8 640 8 425 8 440 8 463 8 625 8 640 8 25CF 8 25EF 8 25FJ 9 25REF 8 33CF 8 63RF 8 63RF 8 63RF 8 25CF 8	MP400AFRHFN. MP400AIEFN MP400AOEFN. MP400CFN MP400EFN MP400IFN MP400ISFN. MP400ISFN. MP630AFLHFN MP630AFLHFN MP630AIEFN MP630AOEFN. MP630AOEFN MP630AOEFN MP630AOEFN MP630AOEFN MP630AOEFN MP630EC MP630EFN	16 16 12 12 16 16 16 16 16 16 16 16 16 12 16 16	MTA140M MTA150B MTA150BSW MTA150M MTA163B MTA163BSW MTA163M MTA163MC1 MTA163MC1 MTA163NSW MTA180B MTA180B MTA180BSW MTA180BSW MTA180BSW MTA180BSW MTA180SW MTA180NSW MTA180NSW MTA180NSW
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463 8 625 8 640 8 425 8 440 8 463 8 625 8 640 8 25CF 8 25EF 8 25FJ 9 25REF 8 63CF 8 63EF 8 63REF 8 25CF 8 25EF 8 25FF 8	MP400AFRHFN. MP400AIEFN MP400AOEFN. MP400CFN MP400FN MP400FTN MP400ISFN MP400REFN MP630AFLHFN MP630AFLHFN MP630AFRHFN MP630AOEFN MP630AOEFN MP630FB MP630FB MP630FB MP630FB MP630FB MP630FB MP630FB MP630FB MP630FB MP630FSN MP630FSN MP630FSN MP630FSN MP630FSN MP630FSN MP630FSN MP630FSN	16 16 12 12 16 16 16 16 16 16 16 16 16 16 16 16 16	MTA140M MTA150B MTA150BSW MTA150M MTA163B MTA163BSW MTA163BSW MTA163MC1 MTA163MC1 MTA163NSW MTA163NSW MTA180B MTA180BSW MTA180BSW MTA306B MTA306BSW MTA306BSW MTA306BW MTA3100B MTA3100BSW MTA3100BSW MTA3100BSW MTA3100RSW
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