

Low Voltage Equipment

Innovative Products for the Electrical Contractor - April 2006

edition

5

E-PACK



ABB



Contractor Products

Welcome

The 5th Edition

Welcome to the fifth edition Epack Catalogue which continues to combine a range of products from ABB specially selected for the electrical contractor. In this edition we have introduced a news section, which illustrates new innovative products in action.

If you are a distributor or stockist and would like to promote a special offer you may have with ABB products please contact: marketing.info@gb.abb.com or call 02476 368500 to be included on the stockist web site at www.abbepack.co.uk

So whatever your requirement is, you should be able to easily locate the products you need. We have also given the pages a more user friendly look and feel, with sections for distribution, switching, control and domestic applications.

Knowledge Base

www.abb.com/lowvoltage
email: info@gb.abb.com

Sales Desk

Telephone: 02476 368676
Facsimile: 02476 368401

This price list supercedes all previously issued prices.
All prices are in £'s Sterling and do not include VAT.

Every effort has been made to ensure that the information given in this publication is correct, and we accept no liability in respect of contingencies arising from errors.

All goods are offered subject to our Terms of Tender and Sale, Form TS.2c



All products on a page headed EPACK 24hr SERVICE are available next day service if ordered before 10.00am.

EPACK overnight FAX line:
02476 362834

Easy to Choose
Easy to Order
Easy to Install



1

ABB: Serving a national stockist network from Coventry

- Centrally Located
- 18,000 sqft of Warehousing
- 10,000 plus Stock Items
- Over £2M Stock
- Fast Turnaround



Available locally from your nearest stockist

- Protecting
- Controlling
- Switching
- Isolating

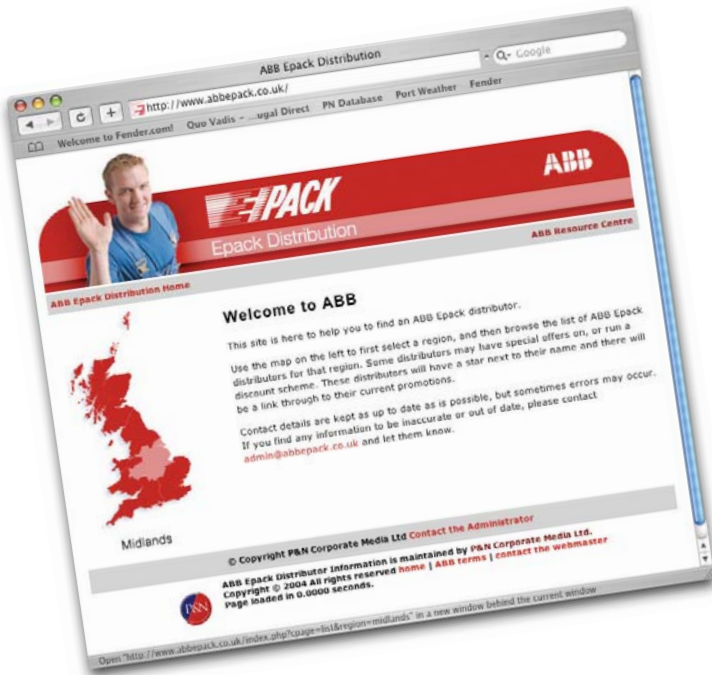
ABB is proud to offer a new innovative way to supply the electrical contractor with Protecting, Controlling, Switching and Isolating products. The EPACK display stand allows you to choose the product you require visually and the red card

below the product gives you all the rating details you require to make the correct choice.

Once your choice is made simple take the red card to the trade counter to receive your product.



For your nearest stockist www.abbepack.co.uk



Your Nearest Stockist

1

Here is an easy way to find your nearest Epack Stockist, simply go to the web address, click your region on the map and this will display the stockists in your region along with the details of ABB's sales engineer.

Also to be included shortly will be special offers from your local stockist, if you are a stockist and would like to promote your latest ABB offer, please contact: info@gb.abb.com or call 02476 368500 to be included on this web site.

Check it out!

For your nearest stockist



The Resource Centre

The Resource Centre contains media which may be down loaded for the purpose of producing your own catalogues or price lists to promote ABB products.

The use of ABB logos or trade marks must conform to the corporate identity guide lines at: www.abb.com/visualidentity

For pdf catalogues and images

We care what you think

As an ABB customer, you deserve not to be taken for granted. Which is why we've created our 'Earning Your Loyalty' customer satisfaction programme, aimed at helping us to find ways to constantly improve our levels of manufacturing management and customer service.

We have devised a rapid response system that lets you quickly and easily let us know what you think of any aspect of our performance. Taking part is simple too. All you have to do is to order one of our desktop calendars, which contain two kinds of reply paid response cards.

In the unlikely event that you are not happy with any aspect of our products or service give us the **red card**. If we've done something you're really pleased with, send us a **green card**. Each card features a unique number, so we'll know which person in your organisation it's from. And because they're all pre-paid, it won't cost you a penny to get in touch. Alternatively, you can e-mail your comments to **redcard@gb.abb.com** or **greencard@gb.abb.com** and we'll deal with them right away.



How the system works

Each card we receive acts as an "early warning system" to help us identify ways in which we could better serve your needs. The scheme is supported by a dedicated customer relations team, whose responsibility it is to ensure that any potential problems are dealt with straightaway. Once we receive a Red card, our team will give you a call to ascertain exactly what the problem was and explain how it will be solved

If we can rectify it immediately, we will. The problem will also be addressed through ongoing 'quality circles' and we'll get back to you on the outcome.

A commitment to continuous improvement

By taking part in the initiative you'll be helping ABB to:

- Monitor our performance against your expectations
- Create a dialogue around our performances
- Provide you with the highest levels of support
- Earn your respect and loyalty

To find out about the 'Earning Your Loyalty' initiative, call **Kane Perry, ABB Customer Relations Manager** on **07803 885874** (24 hours, 7 days a week) or e-mail **info@gb.abb.com**.

ABB is a founder member of Voltimum, the first European portal for the electrical industry. You will be able to view our products on-line and obtain all the information you need about our products 24 hours a day - 7 days a week.

Please visit www.abb.co.uk for the latest development.



Product Ref.	Product Description
Housemaster Consumer Units - Moulded Enclosure	
HMMS4	ABB Consumer unit, Moulded, 4 way with switch disconnector fitted NEW!
HMRC4	ABB Consumer unit, Moulded, 4 way with RCD fitted NEW!
HMMS6	ABB Consumer unit, Moulded, 6 way with switch disconnector fitted NEW!
HMRC6	ABB Consumer unit, Moulded, 6 way with RCD fitted NEW!
HMMS10	ABB Consumer unit, Moulded, 10 way with switch disconnector fitted NEW!
HMRC10	ABB Consumer unit, Moulded, 10 way with RCD fitted NEW!
HMSL44	ABB Consumer unit, Moulded, 4+4 way with split load fitted NEW!
HMMS14	ABB Consumer unit, Moulded, 14 way with switch disconnector fitted NEW!
HMRC14	ABB Consumer unit, Moulded, 14 way with RCD fitted NEW!
HMSL66	ABB Consumer unit, Moulded, 6+6 way with split load fitted NEW!
HMMS18	ABB Consumer unit, Moulded, 18 way with switch disconnector fitted NEW!
HMRC18	ABB Consumer unit, Moulded, 18 way with RCD fitted NEW!
HMSL88	ABB Consumer unit, Moulded, 8+8 way with split load fitted NEW!



ABB Housemaster Consumer Units, Moulded Enclosure to BS EN 60439-3

Supplied factory fitted with Switch Disconnector and/or RCD. Unit comes complete with blanking plates, busbar, busbar cover, terminal bars and installation instructions

Mounting and cabling

- Shallow base and deep cover provide ample space for wiring and other access. Cover overlap hides mini-trunking entry
- Knockouts all round the base and in the cover make wire insertion simple as the cables can enter anywhere
- Tie wrap connection points in easy locations for incoming and outgoing wires
- 5 open mounting holes, 2 blind

Wiring and maintenance

- Removable neutral and earth terminal bar holders can be positioned at the top, bottom or side of the unit for convenience
- Raised interior allows easy routing of cable beneath the pan assembly
- Covered busbar for improved safety with additional protective strip to cover unused ways
- All devices can be locked on or off for safety and security
- Removable pan assembly for ease of working

Exterior appearance

- Compact dimensions mean finding a location is never a problem even in tight or confined spaces
- Unique sliding door means easier access and avoids door breakages
- Circuit identification labels can be seen whether unit is fitted high or low
- Blanking plates neatly cover unused ways
- Colour RAL9010 White

Combining units

- The bridge means a neat finish with no tools or trunking needed. Uses existing knockouts

To see the optional outgoing devices for each product, click on the relevant 'options' link below

Downloads

- Installation instructions (.pdf) (1491 Kb, 2 page(s),2002-06-06)
- Catalogue pages (.pdf) (90 Kb, 2 page(s),2002-06-06)
- Features, benefits and dimensions (.pdf) (744 Kb, 8 page(s),2002-06-06)

Outgoing devices and Accessories

Accessories

MCBs, 6kA B curve

1



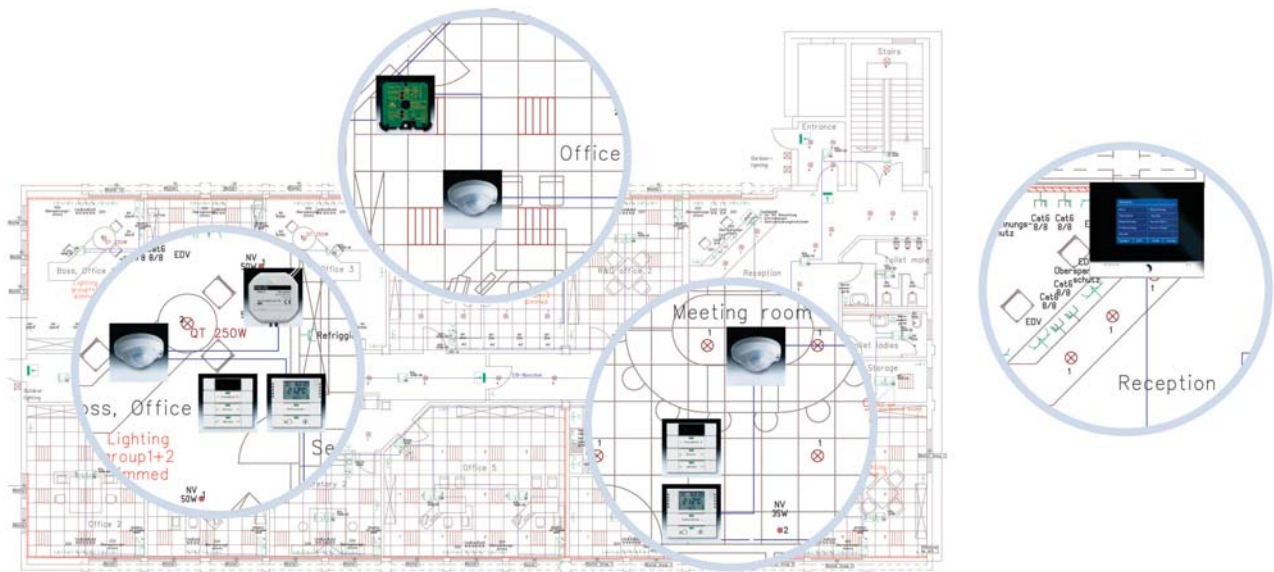
Top-of-the-range home gets ABB building controls to match

Mentmore Homes is installing intelligent building controls from ABB in its latest prestigious building project in Gerrards Cross, Buckinghamshire. The Georgian-style exterior of the £2.8 million, 5/6 bedroom homes hides a 21st century luxury development, featuring a home cinema, gym and sauna. ABB's intelligent European Installation Bus (EIB) products ensure that the lighting and heating functions match up to the rest of this top-specification build.



'The EIB system allows the homeowners to virtually create their own living environment,' says Brian Peck, managing director of Mentmore Homes. 'It enables people to change the mood in an instant.'

ABB's EIB system works in a fundamentally different way from conventional smart building systems, in which central controls open and close a separate electrical circuit to

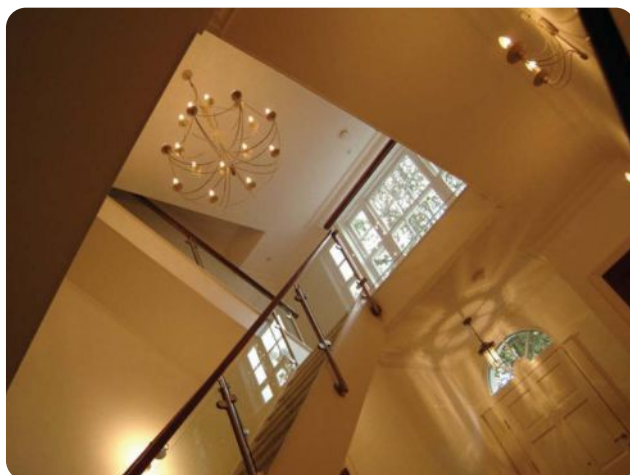


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activate each individual device, such as a light, blind or heating element. This conventional approach relies on hundreds of power cables to effectively distribute the intelligence around the building.

In the EIB system, a sensor or control device such as a light switch sends a control signal over a twin-core data cable, or bus, to an actuator, which then controls a device locally. This approach yields a true, two-wire system, without the need for hundreds of wires providing separate circuits between a central control point and each light or other device.

System configuration and commissioning is achieved by connecting a PC equipped with specialist EIB software to any point in the system via a serial interface. This provides a uniquely flexible approach, according to Dan Shrimpton of DRS Electrics, the electrical contractor on the Gerrards Cross project.



'There are no other systems that compare with it. It's far more advanced than anything else I've come across,' he says. 'Once other systems are set up, it's really difficult to change them. But with ABB's i-bus EIB system, it's easy to reprogram it to perform differently at a later date.'



This is especially useful if the function of a room may change over time. Individual rooms can each be reprogrammed with their own temperature and lighting cycles, optimised to match changing daily usage patterns. Residents can obviously override these settings at any time if they prefer.

Installation and commissioning is also straightforward, since the EIB approach is a true, two-wire system. ***'For a contractor, it's brilliantly simple to install,' says Shrimpton. 'This is the eighth house I've done and it takes around three days to commission the whole thing.'***

The Mentmore project currently uses the ABB system to control heating and lighting, but the same system could also integrate security alarms and functions, as well as piping entertainment signals around the building. 'There's a lot more it can do,' says Peck. 'We're still learning.'

1



Xscape to the snow, courtesy of ABB low voltage products

Versatility, ease of installation and maintenance and a competitive price tag were amongst the key factors that made ABB distribution equipment the best choice for an electrical services application at the new Xscape leisure complex in Castleford, West Yorkshire. Specified and installed by Balfour Kilpatrick, the equipment is used to control the lighting and power system at the complex, which cost £64m to build and which covers the equivalent of six football pitches in size.

“Cost was a particularly important factor for us in delivering the lighting and power for the leisure facilities,” says **Peter Anderson, Electrical Contract Manager for Balfour Kilpatrick**. “ABB offered us the most comprehensive range of equipment at the most competitive prices.”

Xscape boasts the UK's largest real-snow slope 190metres of slopes including a 35-metre wide dedicated lesson slope. In addition to this, leisure-seekers can also take advantage of a

16-metre ice climbing wall, rock climbing walls, an aerial assault course, a 14 screen cinema, bowling alley, all weather indoor skatepark and a number of bars, restaurants and retail units. The entire site uses around 5MW of power.



With over three million visitors expected each year, it is essential that the complex's electrical distribution system can guarantee a problem-free supply of power to the site. To satisfy this requirement, ABB supplied 20 ABB Protecta distribution boards renowned for their reliability and durability. The distribution boards were supplied with miniature circuit breakers rated up to 32A and were pre-wired to cut down on installation time on site. Standard 100A switch disconnectors were fitted to the incomers to the distribution board along with 50 OT range enclosed load break switches (rating 32A to 400A) and 45 OS range enclosed switch fuses (rating 63A to 400A) all to provide extra protection for the equipment.

“Supplying the distribution boards pre-wired meant they were ready to be connected up as soon as they arrived on site, eliminating the time needed for installing and commissioning the various individual components on site,” says Duncan Haigh, Sales Engineer, ABB Low Voltage Products.

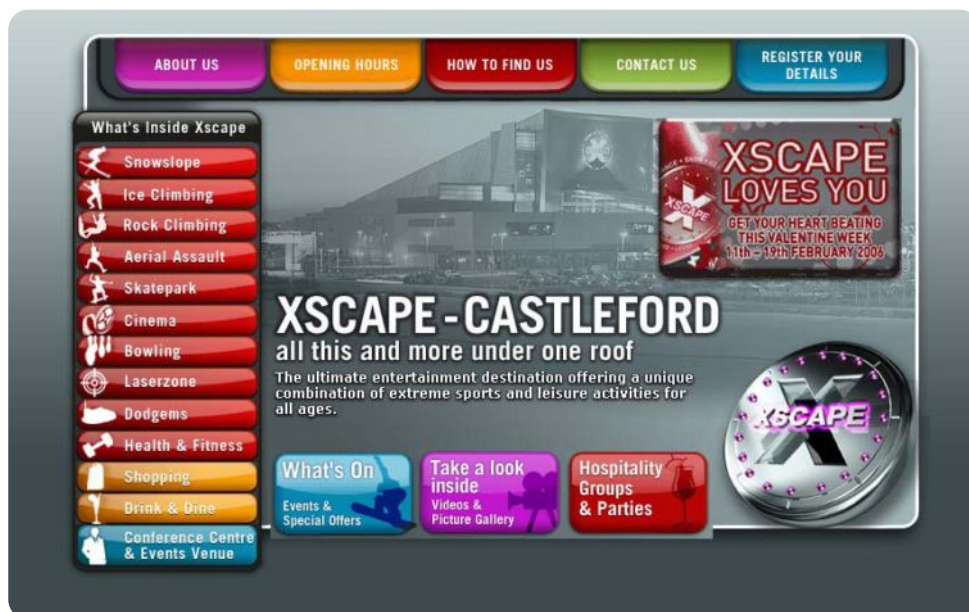
To help the leisure facility save on energy costs as well as minimise peak demand, some of the distribution boards were also fitted with contactors and time clocks, which automatically switch off the lighting within certain areas of the complex at pre-determined times.

As part of the installation, Balfour Kilpatrick also used ABB's EMAX range air circuit breakers with a rating of 1250A fitted into the enclosures. The availability of a fully rated, rather than the usual half-rated, neutral pole made the EMAX ACB ideal for providing high-current circuit protection for this particular application where high densities of fluorescent lighting place an increased single-phase loading on the three-phase network.

“The EMAX range of air circuit breakers has a much longer mechanical life when compared to others in their category,” says Anderson, “They're also compact, easy to install and the electronic protection is extremely versatile.”



Emax ACB 1250A



All powered by ABB low voltage products

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Distribution 2



Consumer Units
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Type A
Distribution
Boards
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Type B
Distribution
Boards
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Panel Boards
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Switching 3



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Isolators
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Isolators
Metal Enclosures
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Changeover Switches
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DOL Starters
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Enclosures 6

Enclosures

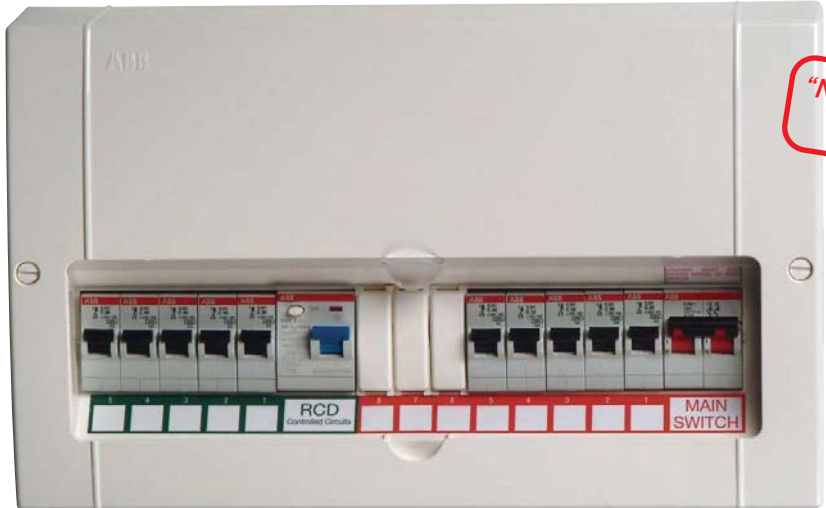
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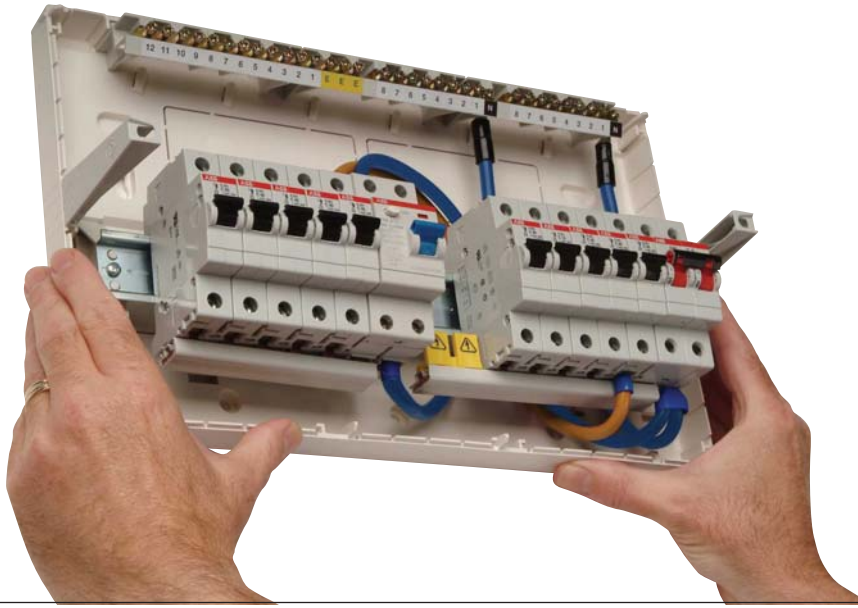
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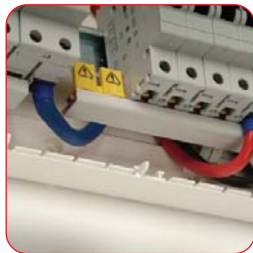


"New design compact circuit breakers"

Utilising Europe's No.1 Selling MCB



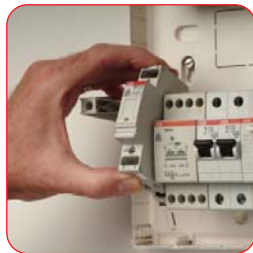
Unique Space Saving Sliding Door



NEW TRUE FLEXIBLE SPLIT LOAD - Less stock, on site flexibility



NEW FULLY SHROUDED BUSBAR - Easier and quicker to fit



NEW DIN RAIL MOUNTED COMPONENTS
Bell Transformers, timers, contactors etc.

Moulded Enclosure to BS EN 60439-3

- Supplied factory fitted with switch disconnecter and/or RCD, specification as table. Unit comes complete with 4 blanking plates, shrouded busbar, terminal bars and installation instructions.
- Colour RAL 9010
- Adaptable split load and dual tariff, see possible variations below.



HMMSL8+8C

Way Combinations	Incomer		Split Load		Dual Tariff Isolator	Order Code	Price £
	Isolator	RCD	Isolator	RCD			
4	100A					HMMS4C	24.79
6	100A					HMMS6C	29.29
10	100A					HMMS10C	34.36
14	100A					HMMS14C	37.63
18	100A					HMMS18C	48.94
4		80A/30mA				HMRC4C	74.09
6		100A/30mA				HMRC6C	84.94
10		100A/30mA				HMRC10C	97.83
14		100A/30mA				HMRC14C	102.09
18		100A/30mA				HMRC18C	115.16
4+4 3+5, 2+6 5+3, 6+2			100A	80A/30mA		HMSL4+4C	102.21
6+6 4+8, 5+7 8+4, 7+5			100A	80A/30mA		HMSL6+6C	110.03
8+8 7+9, 9+7			100A	80A/30mA		HMSL8+8C	121.40
6+6 4+8, 5+7 8+4, 7+5					2 x 100A	HMDT6+6C	62.71
8+8, 7+9, 9+7					2 x 100A	HMDT8+8C	70.97

S200 Series MCBs - single pole - BS EN 60898 6kA



S201...

Current Rating Amps	Breaking Capacity kA	Outgoing Cable Capacity	Type B	Type C	Price £
			Order Code	Order Code	
6	6	25mm ²	S201B6	S201C6	6.95
10	6	25mm ²	S201B10	S201C10	6.94
13	6	25mm ²	S201B13	S201C13	6.94
16	6	25mm ²	S201B16	S201C16	6.94
20	6	25mm ²	S201B20	S201C20	6.94
25	6	25mm ²	S201B25	S201C25	6.94
32	6	25mm ²	S201B32	S201C32	6.94
40	6	25mm ²	S201B40	S201C40	6.94
50	6	25mm ²	S201B50	S201C50	7.18
63	6	25mm ²	S201B63	S201C63	7.53

Type B - Suitable for small inrush or switching surges, heating loads and tungsten lighting

Type C - Suitable for moderate switching surges for short duration. eg. discharge lamps



F204AC-63/0.03



E203



EPBKIT1-T3



SA1



Incomers

Description	Rating	Sensitivity (mA)	Order Code	Price
35mm ² terminal block (requires 3)			SZ-ESK	2.63
70mm ² cable block			EPBKIT4C	12.25
120mm ² cable block			EPBKIT3C	15.76
Switch disconnecter	100A 3 Pole		E203/100r	31.41
Switch disconnecter	125A 3 Pole		E203/125r	45.36
RCCB*	63A 4 Pole	30	F204AC-63/0.03	89.85
RCCB*	63A 4 Pole	100	F204AC-63/0.1	64.64
RCCB*	63A 4 Pole	300	F204AC-63/0.3	59.03
RCCB time delay	63A 4 Pole	300	F204ACS-63/0.3	91.01
Non Auto TP MCCB	250A 3 Pole		1SDA051327R1	168.66
Front Cable connection kit for above MCCB			1SDA051482R1	7.24

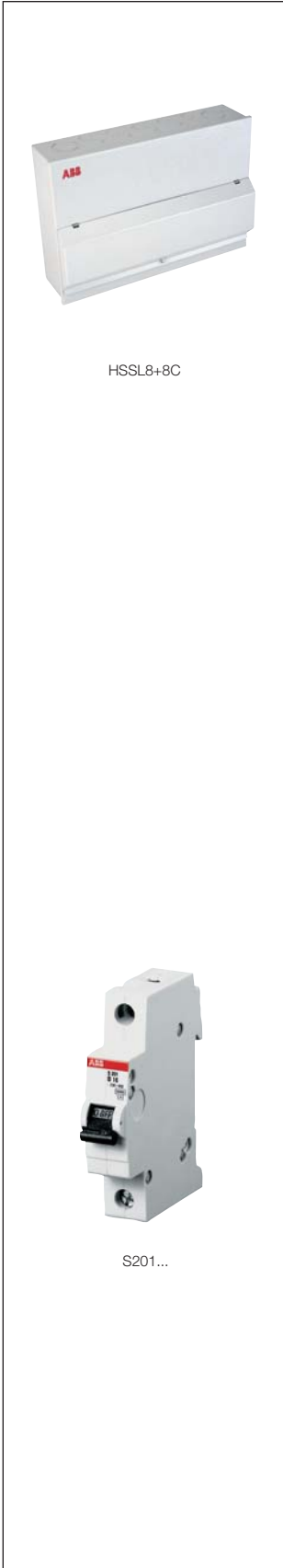
Incomer Connection Kits

Description	Order Code	Price
RCCB connection kit	EPBKIT2C	16.92
Non-auto 250A MCCB connection kit	EPBKIT1-T3C	21.58
Single phase kit	EPBKIT6C	10.50
Unused way busbar cover (strip of 5)*	SZ-BSK	1.12

*Not suitable for the S500, S290 and S951 MCB's

Accessories

Type	Order Code	Price £
MCB padlock adaptor 3mm hasp	SA1	2.09
Padlock with 2 keys	SA2	5.78
Moulded Housemaster connection bridge	HMCB	1.63
Moulded Housemaster spare blanking piece 4 modules	HMBS	1.11
Steel Housemaster blanking cover 213mm long (plastic)	SZ-BP1	1.70
Steel Housemaster blanking piece 1 module (plastic)	SZ-BP2	0.26
Spare Housemaster Label Sheet	110381	1.56
Spare 18 Module Busbar	PS 1/19/30	6.08
Spare End Cap for 18 Module Busbar (LH & RH End Cap)	PS-END 0	1.65



HSSL8+8C

S201...

Steel Enclosure to BS EN 60439-3

- Supplied factory fitted with switch disconnecter and/or RCD, specification as table. Unit comes complete with shrouded busbar, terminal bars and installation instructions.
- Colour RAL 7035
- Adaptable split load, see possible variations below.

Way Combinations	Incomer		Split Load		Dual Tariff Isolator	Order Code	Price £
	Isolator	RCD	Isolator	RCD			
4	100A					HSMS4C	27.19
7	100A					HSMS7C	32.26
11	100A					HSMS11C	36.64
16	100A					HSMS16C	41.48
20	100A					HSMS20C	53.67
4		80A/30mA				HSRC4C	78.70
7		100A/30mA				HSRC7C	91.71
11		100A/30mA				HSRC11C	100.58
16		100A/30mA				HSRC16C	105.48
20		100A/30mA				HSRC20C	119.42
4+4 3+5, 2+6 5+3, 6+2			100A	80A/30mA		HSSL4+4C	103.67
6+6 4+8, 5+7 8+4, 7+5			100A	80A/30mA		HSSL6+6C	111.48
8+8 7+9, 9+7			100A	80A/30mA		HSSL8+8C	123.74

S200 Series MCBs - single pole - BS EN 60898 6kA

Current Rating Amps	Breaking Capacity kA	Outgoing Cable Capacity	Type B Order Code	Type C Order Code	Price £
6	6	25mm ²	S201B6	S201C6	6.95
10	6	25mm ²	S201B10	S201C10	6.94
13	6	25mm ²	S201B13	S201C13	6.94
16	6	25mm ²	S201B16	S201C16	6.94
20	6	25mm ²	S201B20	S201C20	6.94
25	6	25mm ²	S201B25	S201C25	6.94
32	6	25mm ²	S201B32	S201C32	6.94
40	6	25mm ²	S201B40	S201C40	6.94
50	6	25mm ²	S201B50	S201C50	7.18
63	6	25mm ²	S201B63	S201C63	7.53

Type B - Suitable for small inrush or switching surges, heating loads and tungsten lighting
Type C - Suitable for moderate switching surges for short duration. eg. discharge lamps.



F204AC-63/0.03



E203



EPBKIT1-T3



SA1



Incomers

Description	Rating	Sensitivity (mA)	Order Code	Price
35mm ² terminal block (requires 3)			SZ-ESK	2.63
70mm ² cable block			EPBKIT4C	12.25
120mm ² cable block			EPBKIT3C	15.76
Switch disconnecter	100A 3 Pole		E203/100r	31.41
Switch disconnecter	125A 3 Pole		E203/125r	45.36
RCCB*	63A 4 Pole	30	F204AC-63/0.03	89.85
RCCB*	63A 4 Pole	100	F204AC-63/0.1	64.64
RCCB*	63A 4 Pole	300	F204AC-63/0.3	59.03
RCCB time delay	63A 4 Pole	300	F204ACS-63/0.3	91.01
Non Auto TP MCCB	250A 3 Pole		1SDA051327R1	168.66
Front Cable connection kit for above MCCB			1SDA051482R1	7.24

Incomer Connection Kits

Description	Order Code	Price
RCCB connection kit	EPBKIT2C	16.92
Non-auto 250A MCCB connection kit	EPBKIT1-T3C	21.58
Single phase kit	EPBKIT6C	10.50
Unused way busbar cover (strip of 5)*	SZ-BSK	1.12

*Not suitable for the S500, S290 and S951 MCB's

Accessories

Type	Order Code	Price £
MCB padlock adaptor 3mm hasp	SA1	2.09
Padlock with 2 keys	SA2	5.78
Moulded Housemaster connection bridge	HMCB	1.63
Moulded Housemaster spare blanking piece 4 modules	HMBS	1.11
Steel Housemaster blanking cover 213mm long (plastic)	SZ-BP1	1.70
Steel Housemaster blanking piece 1 module (plastic)	SZ-BP2	0.26
Spare Housemaster Label Sheet	110381	1.56
Spare 18 Module Busbar	PS 1/19/30	6.08
Spare End Cap for 18 Module Busbar (LH & RH End Cap)	PS-END 0	1.65

*Utilising Europe's
No.1 Selling MCB*



For a distribution board to be complete you need to select from the 4 colour coded sections

Distribution Board

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Type B Page 2/11

Incoming Device

Type A Page 2/10
Type B Pages 2/16

Incoming Connection Kits

Type B Page 2/16

Outgoing Device

Type A Pages 2/8-9
Type B Pages 2/12-15

Type A - SP&N Distribution Boards

- Constructed to BSEN60439 part 1 & 3. IP30 to BSEN60529. Finished in RAL7035.
- Supplied without incomer, see incomer options page 2/10.
- Earth and neutral bars included.
- Neutral link to incomer included
- Busbar rating 100A - 230v



2

Type A - SP&N Distribution Boards

Number of Outgoing Ways	Order Code	Price £
4 way SP&N	ECS104C	32.34
7 way SP&N	ECS107C	34.65
11 way SP&N	ECS111C	57.12
16 way SP&N	ECS116C	65.45
20 way SP&N	ECS120C	82.14

Note:

For the distribution board to be complete you must order one item from each of the 3 colour coded sections

S200M Series Type B - MCBs - single pole - BS EN 60898 10kA

Suitable for cable protection and small inrush or switching surges, heating loads and tungsten lighting

Current Rating Amps	Breaking Capacity kA	Outgoing Cable Capacity	Type B Order Code	Price £
6	10	25mm ²	S201MB6	8.50
10	10	25mm ²	S201MB10	7.79
13	10	25mm ²	S201MB13	7.79
16	10	25mm ²	S201MB16	7.79
20	10	25mm ²	S201MB20	7.79
25	10	25mm ²	S201MB25	7.79
32	10	25mm ²	S201MB32	7.79
40	10	25mm ²	S201MB40	8.50
50	10	25mm ²	S201MB50	8.92
63	10	25mm ²	S201MB63	9.04



ECS107C



S201M



S201...

S200M Series Type C - MCBs - single pole - BS EN 60898 10kA

Suitable for cable protection and moderate switching surges for short duration. eg. discharge lamps.

Current Rating Amps	Breaking Capacity kA	Outgoing Cable Capacity	Type C Order Code	Price £
6	10	25mm ²	S201MC6	8.50
10	10	25mm ²	S201MC10	7.79
13	10	25mm ²	S201MC13	7.79
16	10	25mm ²	S201MC16	7.79
20	10	25mm ²	S201MC20	7.79
25	10	25mm ²	S201MC25	7.79
32	10	25mm ²	S201MC32	7.79
40	10	25mm ²	S201MC40	8.50
50	10	25mm ²	S201MC50	8.92
63	10	25mm ²	S201MC63	9.04



S201...

S200 Series Type D - MCBs - single pole - BS EN 60898 6kA

Suitable for cable protection and high inrush applications such as transformers

Rating Single Pole	Breaking Capacity kA	Outgoing Cable Capacity	Order Code	Price £
0.5	6	25mm ²	S201D0.5	9.69
1	6	25mm ²	S201D1	9.69
2	6	25mm ²	S201D2	9.60
3	6	25mm ²	S201D3	9.60
4	6	25mm ²	S201D4	9.42
6	6	25mm ²	S201D6	9.15
10	6	25mm ²	S201D10	8.39
13	6	25mm ²	S201D13	8.39
16	6	25mm ²	S201D16	8.39
20	6	25mm ²	S201D20	8.39
25	6	25mm ²	S201D25	8.39
32	6	25mm ²	S201D32	8.39
40	6	25mm ²	S201D40	9.15
50	6	25mm ²	S201D50	9.60
63	6	25mm ²	S201D63	9.69



F202 AC-63/0.03



E202/100r



SA1

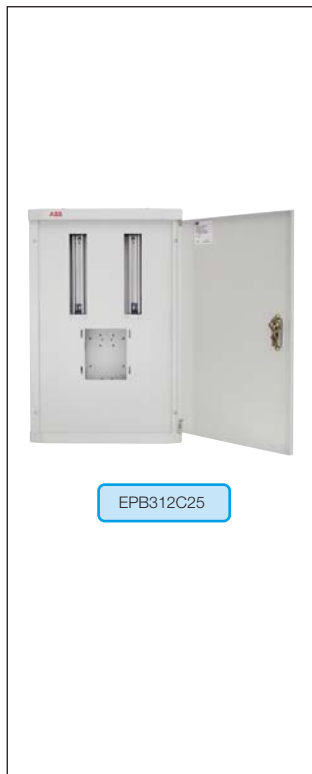


Incomer Options

Description	Rating (A)	Sensitivity (mA)	Order Code	Price £
RCCB	63A 2 pole	30	F202 AC-63/0.03	62.42
RCCB	63A 2 pole	100	F202 AC-63/0.1	55.89
RCCB	63A 2 pole	300	F202 AC-63/0.3	52.69
RCCB time delayed	63A 2 pole	300	F202 ACS-63/0.3	87.52
RCCB	80A 2 pole	30	F202 AC-80/0.03	77.23
RCCB	80A 2 pole	100	F202 AC-80/0.1	59.56
RCCB	80A 2 pole	300	F202 AC-80/0.3	57.79
RCCB	100A 2 pole	30	F202 AC-100/0.03	90.59
RCCB	100A 2 pole	100	F202 AC-100/0.1	72.56
RCCB	100A 2 pole	300	F202 AC-100/0.3	69.40
Switch Disconnecter 100A 2 pole (max cable 50mm ²)			E202/100r	15.87

Accessories

Type	Order Code	Price £
MCB padlock adaptor 3mm hasp	SA1	2.09
Padlock with 2 keys	SA2	5.78
Moulded Housemaster connection bridge	HMCB	1.63
Moulded Housemaster spare blanking piece 4 modules	HMBS	1.11
Steel Housemaster blanking cover 213mm long (plastic)	SZ-BP1	1.70
Steel Housemaster blanking piece 1 module (plastic)	SZ-BP2	0.26
Spare Housemaster Label Sheet	110381	1.56
Spare 18 Module Busbar	PS 1/19/30	6.08
Spare End Cap for 18 Module Busbar (LH & RH End Cap)	PS-END 0	1.65



Type B TP&N Distribution Boards

- Outgoing MCBs up to 63A
- Incomers up to 250A
- Constructed to BSEN60439 part 1 & 3. IP41 to BSEN60529. Finished in RAL7035.
- Supplied without incomer, see incomer options on 2/16
- Earth and neutral bars included.
- Door reversible
- Door lock as standard
- Primary Boards Busbar 250A - 400v

Number of Outgoing Ways	Order Code	Price £
4 way TP&N	EPB304C25	98.39
6 way TP&N	EPB306C25	112.58
8 way TP&N	EPB308C25	127.36
12 way TP&N	EPB312C25	155.36
16 way TP&N	EPB316C25	221.49
20 way TP&N	EPB320C25	296.41
24 way TP&N	EPB324C25	362.41

B



S201M



S202M



S203M

S200M Series Type B - MCBs - BS EN 60898 10kA

Suitable for cable protection and small inrush or switching surges, heating loads and tungsten lighting

Current Rating Single Pole	Breaking Capacity kA	Outgoing Cable Capacity	Order Code	Price £
6	10kA	25mm ²	S201MB6	8.50
10	10kA	25mm ²	S201MB10	7.79
13	10kA	25mm ²	S201MB13	7.79
16	10kA	25mm ²	S201MB16	7.79
20	10kA	25mm ²	S201MB20	7.79
25	10kA	25mm ²	S201MB25	7.79
32	10kA	25mm ²	S201MB32	7.79
40	10kA	25mm ²	S201MB40	8.50
50	10kA	25mm ²	S201MB50	8.92
63	10kA	25mm ²	S201MB63	9.04

Double Pole

6	10kA	25mm ²	S202MB6	24.38
10	10kA	25mm ²	S202MB10	22.40
13	10kA	25mm ²	S202MB13	22.40
16	10kA	25mm ²	S202MB16	22.40
20	10kA	25mm ²	S202MB20	22.40
25	10kA	25mm ²	S202MB25	22.40
32	10kA	25mm ²	S202MB32	22.40
40	10kA	25mm ²	S202MB40	24.45
50	10kA	25mm ²	S202MB50	25.62
63	10kA	25mm ²	S202MB63	25.84

Triple Pole

6	10kA	25mm ²	S203MB6	36.22
10	10kA	25mm ²	S203MB10	33.96
13	10kA	25mm ²	S203MB13	33.96
16	10kA	25mm ²	S203MB16	33.96
20	10kA	25mm ²	S203MB20	33.96
25	10kA	25mm ²	S203MB25	33.96
32	10kA	25mm ²	S203MB32	33.96
40	10kA	25mm ²	S203MB40	36.22
50	10kA	25mm ²	S203MB50	38.03
63	10kA	25mm ²	S203MB63	38.39

C



S201M



S202M



S203M

S200M Series Type C - MCBs - BS EN 60898 10kA

Suitable for cable protection and moderate switching surges for short duration, eg. discharge lamps.

Current Rating	Breaking Capacity	Outgoing Cable Capacity	Order Code	Price £
Single Pole	kA			
0.5	10kA	25mm ²	S201MC0.5	9.04
1	10kA	25mm ²	S201MC1	9.04
2	10kA	25mm ²	S201MC2	8.92
3	10kA	25mm ²	S201MC3	8.92
4	10kA	25mm ²	S201MC4	8.74
6	10kA	25mm ²	S201MC6	8.50
10	10kA	25mm ²	S201MC10	7.79
13	10kA	25mm ²	S201MC13	7.79
16	10kA	25mm ²	S201MC16	7.79
20	10kA	25mm ²	S201MC20	7.79
25	10kA	25mm ²	S201MC25	7.79
32	10kA	25mm ²	S201MC32	7.79
40	10kA	25mm ²	S201MC40	8.50
50	10kA	25mm ²	S201MC50	8.92
63	10kA	25mm ²	S201MC63	9.04

Double Pole

0.5	10kA	25mm ²	S202MC0.5	25.84
1	10kA	25mm ²	S202MC1	25.84
2	10kA	25mm ²	S202MC2	25.62
3	10kA	25mm ²	S202MC3	25.62
4	10kA	25mm ²	S202MC4	25.15
6	10kA	25mm ²	S202MC6	24.38
10	10kA	25mm ²	S202MC10	22.40
13	10kA	25mm ²	S202MC13	22.40
16	10kA	25mm ²	S202MC16	22.40
20	10kA	25mm ²	S202MC20	22.40
25	10kA	25mm ²	S202MC25	22.40
32	10kA	25mm ²	S202MC32	22.40
40	10kA	25mm ²	S202MC40	24.45
50	10kA	25mm ²	S202MC50	25.62
63	10kA	25mm ²	S202MC63	25.84

Triple Pole

0.5	10kA	25mm ²	S203MC0.5	38.39
1	10kA	25mm ²	S203MC1	38.39
2	10kA	25mm ²	S203MC2	38.03
3	10kA	25mm ²	S203MC3	38.03
4	10kA	25mm ²	S203MC4	37.34
6	10kA	25mm ²	S203MC6	36.22
10	10kA	25mm ²	S203MC10	33.96
13	10kA	25mm ²	S203MC13	33.96
16	10kA	25mm ²	S203MC16	33.96
20	10kA	25mm ²	S203MC20	33.96
25	10kA	25mm ²	S203MC25	33.96
32	10kA	25mm ²	S203MC32	33.96
40	10kA	25mm ²	S203MC40	36.22
50	10kA	25mm ²	S203MC50	38.03
63	10kA	25mm ²	S203MC63	38.39

D



S201...



S202...



S203...

S200 Series Type D - MCBs - BS EN 60898 6kA

Suitable for cable protection and high inrush applications such as transformers

Current Rating	Breaking Capacity	Outgoing Cable Capacity	Order Code	Price £
0.5	6kA	25mm ²	S201D0.5	9.69
1	6kA	25mm ²	S201D1	9.69
2	6kA	25mm ²	S201D2	9.60
3	6kA	25mm ²	S201D3	9.60
4	6kA	25mm ²	S201D4	9.42
6	6kA	25mm ²	S201D6	9.15
10	6kA	25mm ²	S201D10	8.39
13	6kA	25mm ²	S201D13	8.39
16	6kA	25mm ²	S201D16	8.39
20	6kA	25mm ²	S201D20	8.39
25	6kA	25mm ²	S201D25	8.39
32	6kA	25mm ²	S201D32	8.39
40	6kA	25mm ²	S201D40	9.15
50	6kA	25mm ²	S201D50	9.60
63	6kA	25mm ²	S201D63	9.69

Double Pole

0.5	6kA	25mm ²	S202D0.5	27.73
1	6kA	25mm ²	S202D1	27.73
2	6kA	25mm ²	S202D2	27.47
3	6kA	25mm ²	S202D3	27.47
4	6kA	25mm ²	S202D4	26.93
6	6kA	25mm ²	S202D6	26.16
10	6kA	25mm ²	S202D10	23.99
13	6kA	25mm ²	S202D13	23.99
16	6kA	25mm ²	S202D16	23.99
20	6kA	25mm ²	S202D20	23.99
25	6kA	25mm ²	S202D25	23.99
32	6kA	25mm ²	S202D32	23.99
40	6kA	25mm ²	S202D40	26.16
50	6kA	25mm ²	S202D50	27.47
63	6kA	25mm ²	S202D63	27.73

Triple Pole

0.5	6kA	25mm ²	S203D0.5	41.12
1	6kA	25mm ²	S203D1	41.12
2	6kA	25mm ²	S203D2	40.75
3	6kA	25mm ²	S203D3	40.75
4	6kA	25mm ²	S203D4	39.97
6	6kA	25mm ²	S203D6	38.80
10	6kA	25mm ²	S203D10	36.37
13	6kA	25mm ²	S203D13	36.37
16	6kA	25mm ²	S203D16	36.37
20	6kA	25mm ²	S203D20	36.37
25	6kA	25mm ²	S203D25	36.37
32	6kA	25mm ²	S203D32	36.37
40	6kA	25mm ²	S203D40	38.80
50	6kA	25mm ²	S203D50	40.75
63	6kA	25mm ²	S203D63	41.12



DS271AC-C10/0.03

RCBO single pole, solid neutral to BS EN 61009

Current Rating Amps	Breaking Capacity kA	Sensitivity	Terminal Cable Capacity	Type B Order Code	Type C Order Code	Price £
6	10	30mA	10mm ²	DS271AC-B6/0.03	DS271AC-C6/0.03	53.67
10	10	30mA	10mm ²	DS271AC-B10/0.03	DS271AC-C10/0.03	53.67
16	10	30mA	10mm ²	DS271AC-B16/0.03	DS271AC-C16/0.03	53.67
20	10	30mA	10mm ²	DS271AC-B20/0.03	DS271AC-C20/0.03	53.67
25	10	30mA	10mm ²	DS271AC-B25/0.03	DS271AC-C25/0.03	53.67
32	10	30mA	10mm ²	DS271AC-B32/0.03	DS271AC-C32/0.03	53.67
6	10	100mA	10mm ²		DS271AC C6/0.1	53.67
10	10	100mA	10mm ²		DS271AC C10/0.1	53.67
16	10	100mA	10mm ²		DS271AC C16/0.1	53.67
20	10	100mA	10mm ²		DS271AC C20/0.1	53.67
25	10	100mA	10mm ²		DS271AC C25/0.1	53.67
32	10	100mA	10mm ²		DS271AC C32/0.1	53.67

Supplied with 800mm flying neutral and functional earth leads.



F204AC



E203



EPBKIT1-T3C

Incomer Options

Description	Rating (A)	Sensitivity (mA)	Order Code	Price £
RCCB (requires EPB Kit 2C)	63A 4 pole	30	F204AC-63/0.03	89.85
RCCB (requires EPB Kit 2C)	63A 4 pole	100	F204AC-63/0.1	64.64
RCCB (requires EPB Kit 2C)	63A 4 pole	300	F204AC-63/0.3	59.03
RCCB time delayed (requires EPB Kit 2C)	63A 4 pole	300	F204ACS-63/0.3	91.01
RCCB (requires EPB Kit 2C)	100A 4 pole	30	F204AC-100/0.03	125.76
RCCB (requires EPB Kit 2C)	100A 4 pole	100	F204AC-100/0.1	125.76
RCCB (requires EPB Kit 2C)	100A 4 pole	300	F204AC-100/0.3	125.76
Non Auto TP MCCB (requires 1 off 1SDA051482R1 + EPBKIT 1-T3C)	250A 3 pole		1SDA051327R1	168.66
Switch Disconnecter (no kit required)	100A 3 pole		E203/100r	31.41
Switch Disconnecter (no kit required)	125A 3 pole		E203/125r	45.36

Incomer Connecting Kits (not required when switch disconnector used as incomer)

Description	Order Code	Price £
RCCB connection kit (for F200 RCCB)	EPBKIT2C	16.92
250A MCCB connection kit (requires 1off 1SDA051482R1 and 1off EPKIT1-T3C)	EPBKIT1-T3C	21.58
Front cable connection kit for copper cables (3pcs) for above MCCB (needs 1 set for lower terminals, max cable size 185mm ²)	1SDA051482R1	7.24
Cable 35mm ² (3 required) (for direct connection only)	SZ-ESK	2.63
Cable 70mm ² (for direct connection only)	EPBKIT4C	12.25
Cable 120mm ² (for direct connection only)	EPBKIT3C	15.76

General Accessories

Description	Order Code	Price £
12 module blank cover	SZ-BP1	1.70
1 module blank cover	SZ-BP2	0.26
Coupling kit side by side	EPBKIT5	11.85
Single phase kit	EPBKIT6C	10.50
Busbar cover for 5 unused ways	SZ-BSK	1.12
Spare blank flange plate	EPBGP1	6.42
Spare knockout flange plate	EPBGP2	8.75
Spare lock mechanism with 2 keys	EPBCLA1-G	8.40
Label kit for 12 way TP (Label for front cover 2 keys and 1 busbar cover)	EPBKIT0-4C	13.36
Copper Connecting Terminal for incoming neutral & earth terminal (PK10)	NPE-CT	10.40



Meter Modules

Distribution Board 3 phase kWh meter module

Extension box with multi function meter (Deltaplus1300), CT's, wiring loom and MCB to pick up voltage. Can be mounted top or bottom of board.

Meter provides

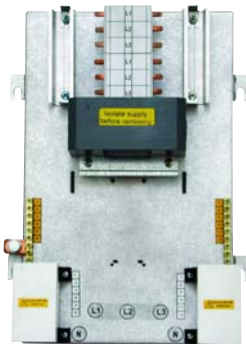
- kWh, kW per phase
- Current
- Phase voltage
- Power factor
- KVArh
- Pulsed output per kWh

CT size	Max Cable Diameter (Through CT)	Order Code	Price £
100A	31mm	DB100METMOD	583.38
125A	31mm	DB125METMOD	583.38
250A	31mm	DB250METMOD	583.38

Extension Modules

Top Extension Boxes

Description	Order Code	Price £
Extension Box Plain Cover No DIN Rail	EPBTEB200C	35.01
Extension Box Plain Cover No DIN Rail	EPBTEB400C	56.00
14 Module Extension Box Steel Flap (1 row)	EPBTEB200S	40.84
28 Module Extension Box Steel Flap (2 row)	EPBTEB400S	59.50



TP&N

TP&N Pan Assemblies

- Designed and manufactured to BS EN 60439-3
- Rated voltage 400V AC
- Busbar rating 250A
- Supplied with Earth and Shrouded Neutral Bars

No. of outgoing TP&N Ways	Weight kg	Order Code	Price
4	3.5	EPB304PAC25	48.01
6	4.3	EPB306PAC25	57.38
8	5.1	EPB308PAC25	65.74
12	6.4	EPB312PAC25	82.26
16	8.2	EPB316PAC25	101.61
20	10.2	EPB320PAC25	157.74
24	12	EPB324PAC25	197.08



F204AC-63/0.03

Incomers

Description	Rating	Sensitivity (mA)	Order Code	Price
35mm ² terminal block (requires 3)			SZ-ESK	2.63
70mm ² cable block			EPBKIT4C	12.25
120mm ² cable block			EPBKIT3C	15.76
Switch disconnecter	100A 3 Pole		E203/100r	31.41
Switch disconnecter	125A 3 Pole		E203/125r	45.36
RCCB*	63A 4 Pole	30	F204AC-63/0.03	89.85
RCCB*	63A 4 Pole	100	F204AC-63/0.1	64.64
RCCB*	63A 4 Pole	300	F204AC-63/0.3	59.03
RCCB time delay	63A 4 Pole	300	F204ACS-63/0.3	91.01
Non Auto TP MCCB	250A 3 Pole		1SDA051327R1	168.66
Front Cable connection kit for above MCCB			1SDA051482R1	7.24



E203

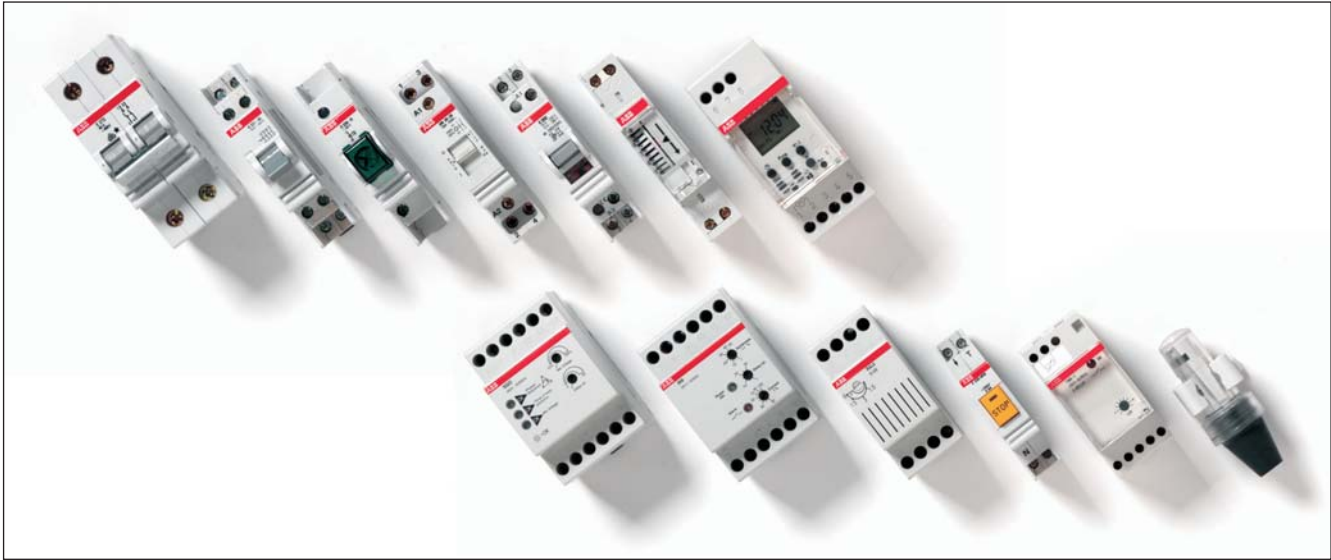
Incomer Connection Kits

Description	Order Code	Price
RCCB connection kit	EPBKIT2C	16.92
Non-auto 250A MCCB connection kit	EPBKIT1-T3C	21.58
Single phase kit	EPBKIT6C	10.50
Unused way busbar cover (strip of 5)*	SZ-BSK	1.12

*Not suitable for the S500, S290 and S951 MCB's



EPBKIT1-T3



Pushbuttons & Indicator Lamps



E225-11D

Push Button 1n/o+1n/c

Description	Rated current	Rated Voltage	Order Code	Price £
Grey	16	250	E225-11B	8.46
Red	16	250	E225-11C	8.46
Green	16	250	E225-11D	8.46
Yellow	16	250	E225-11E	8.46
Black	16	250	E225-11F	8.46
Blue	16	250	E225-11G	8.46



E227-11G

Illuminated Push Button 1n/o + 1n/c, with Neon Lamp E 10 / 220V AC

Description	Rated current	Rated Voltage	Order Code	Price £
Clear	16	250	E227-11B	15.09
Red	16	250	E227-11C	15.09
Green	16	250	E227-11D	15.09
Yellow	16	250	E227-11E	15.09
Blue	16	250	E227-11G	15.09



E229-C

Indicator Light with Neon Lamp E 10/220V

Description	Rated current	Rated Voltage	Order Code	Price £
Clear	16	250	E229-B	7.29
Red	16	250	E229-C	7.29
Green	16	250	E229-D	7.29
Yellow	16	250	E229-E	7.29
Blue	16	250	E229-G	7.29



F202 AC-63/0.03

F200 Series RCCBs Double pole AC - BS/EN 61008

Rated Current	Tripping mA	Order Code	Price £
16	10	F202 AC-16/0.01	64.12
25	30	F202 AC-25/0.03	49.12
40	30	F202 AC-40/0.03	51.86
63	30	F202 AC-63/0.03	62.42
80	30	F202 AC-80/0.03	77.23
100	30	F202 AC-100/0.03	90.59
25	100	F202 AC-25/0.1	48.78
40	100	F202 AC-40/0.1	51.64
63	100	F202 AC-63/0.1	55.89
80	100	F202 AC-80/0.1	59.56
100	100	F202 AC-100/0.1	72.56
25	300	F202 AC-25/0.3	45.97
40	300	F202 AC-40/0.3	46.89
63	300	F202 AC-63/0.3	52.69
80	300	F202 AC-80/0.3	57.79
100	300	F202 AC-100/0.3	69.40

F200 Series RCCB Double Pole Time delayed - BS/EN 61008

2 Pole	Order Code	Price £
63 300	F202 AC S-63/0.3	87.52

Provides discrimination with downstream instantaneous RCCBs of 10, 30, and 100mA sensitivities

F200 Series RCCBs Four pole AC - IEC/EN 61008

Rated Current	Tripping mA	Order Code	Price £
25	30	F204 AC-25/0.03	52.09
40	30	F204 AC-40/0.03	63.36
63	30	F204 AC-63/0.03	89.85
80	30	F204 AC-80/0.03	111.76
100	30	F204 AC-100/0.03	125.76
25	100	F204 AC-25/0.1	52.74
40	100	F204 AC-40/0.1	59.78
63	100	F204 AC-63/0.1	64.64
80	100	F204 AC-80/0.1	111.76
100	100	F204 AC-100/0.1	125.76
25	300	F204 AC-25/0.3	51.05
40	300	F204 AC-40/0.3	52.97
63	300	F204 AC-63/0.3	59.03
80	300	F204 AC-80/0.3	111.76
100	300	F204 AC-100/0.3	125.76



F204 AC-63/0.03

F200 Series RCCB Double Pole Time delayed - BS/EN 61008

4 Pole	Order Code	Price £
63 300	F204 AC S-63/0.3	91.01

Provides discrimination with downstream instantaneous RCCBs of 10, 30, and 100mA sensitivities



TM10/12



ATS1



DTS



TWS-1

Bell transformers

Description	Order Code	Price
sec. 4-8-12V (10VA discontinuous)	TM10/12	14.70
sec. 12-24V (15VA discontinuous)	TM15/24	20.72
sec. 12-24V (30VA discontinuous)	TM30/24	25.28

Analogue Timers

Description	Order Code	Price £
Daily programme without standby battery	ATS1	49.23
Daily programme with standby battery 150 hr	ATS1/R	65.54
Weekly programme with standby battery 150 hr	ATS7/R	67.17

Digital Timers DTS

Contacts	Order Code	Price £
Daily programme time switch with standby battery (3 years), 1 channel	DTS 1/1	78.55
Daily/Weekly programme time switch with standby battery (3 years), 1 channel	DTS 7/1	89.62
Daily/Weekly programme time switch with standby battery (3 years), 2 channels	DTS 7/2	115.25

Twilight Switches

Description	Order Code	Price £
The twilight switch allows ON/OFF switching of lights according to pre-established light levels		
Twilight switch + light sensor	TWS-1	94.04



ESB24.40

Installation Contactors - BS EN 61095

Rated Current	230v		400v		Contacts		Order Code	Price £
	AC1 KW	AC3 KW	AC1 KW	AC3 KW	n/o	n/c		
20	4	1.3	-	-	-	2	ESB20.02	19.16
20	4	1.3	-	-	1	1	ESB20.11	18.30
20	4	1.3	-	-	2	-	ESB20.20	18.30
24	9	2.2	16	4	4	-	ESB24.40	22.61
24	9	2.2	16	4	-	4	ESB24.04	26.43
24	9	2.2	16	4	2	2	ESB24.22	24.47
24	9	2.2	16	4	3	1	ESB24.31	22.21
40	16	5.5	26	11	4	-	ESB40.40	39.94
63	24	8.5	40	15	4	-	ESB63.40	61.25

Please state coil voltage when ordering

Accessories

Description	Contacts		Order Code	Price £
	n/o	n/c		
Aux Contacts (not for ESB20)	2	-	EH04.20	11.96
Aux Contacts (not for ESB20)	1	1	EH04.11	11.96
Spacer			ESB-DIS	0.82
Terminal Cover for ESB 24			ESB-PLK 24	0.53
Terminal Cover for ESB40 and ESB63			ESB-PLK 40/63	0.70



Surge Suppressors

Description	Type	kA	Order Code	Price £
Standard	2 pole	15	OVR1N15275	81.67
Standard	2 pole	40	OVR1N40275	96.76
Standard	4 pole	15	OVR3N15275	157.02
Standard	4 pole	40	OVR3N40275	212.90
Pluggable	2 pole	15	OVR1N15275P	81.30
Pluggable	2 pole	40	OVR1N40275P	110.23
Pluggable	4 pole	15	OVR3N15275P	169.53
Pluggable	4 pole	40	OVR3N40275P	221.34
Spare Cartridge	Single pole	15	OVR15275C	37.00
Spare Cartridge	Neutral	15/40	OVR65NC	50.41
Spare Cartridge	Single pole	40	OVR40275C	40.00

For application details see page 2/35

Digital Energy Meters

There are four different product lines: MINI, DELTAsingle, ODIN and DELTAplus.

Together they represent hundreds of configurations for different applications thanks to intelligent programming possibilities

2



Type	MINI	DELTAsingle	ODIN	DELTAplus
One element	•	•		•
Two element				•
Three element			•	•
Direct connected	•	•	•	•
Transformer connected	•		•	•
IEC approved		•	•	•
Accuracy class	•	•	•	•
Active energy	•	•	•	•
Combined active/reactive energy				•
Instrumentation				•
Tariff		•		•
Pulse output	•	•	•	•
IR output		•	•	•
Size in modules	•	•	•	•
Inbuilt EIB communication				•
Inbuilt LON communication				•
Inbuilt M-Bus communication				•

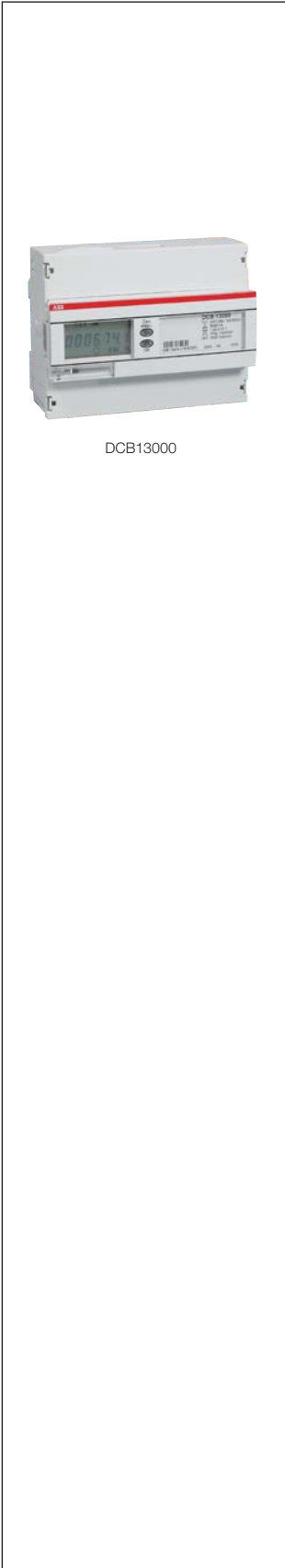
• = Standard Feature

Serial communication adapter

The DELTAsingle, ODIN and DELTAplus electricity meters have an IR output for remote reading of metered data and identity. The adapter converts the optical signals to electrical.

- DIN-rail mounting
- 2 DIN-modules
- Easy Installation

The Serial Communication Adapter is constantly under development. Ask ABB for protocols/media currently available.



Digital DELTAplus Meter

- Fully conform to MID IEC 62053-21 & 23 (Active energy) and IEC 61268 (Reactive energy)
- Direct connected up to 80A
- CT connected 1, 2 and 5A
- CT/VT ratio programmable
- Accuracy class 1 and 2
- Tariff 2 or 4
- Communication Pulse and/or serial
- Installation Check Automatic
- Instrumentation Yes
- Display 7 digits
- IR Output Yes
- Operating Temperature -40°C to +55°C
- Dimension of all Meters H-100, W-122, D-0.65 (0.34kg)
- Suitable for Revenue & Sub Metering

Voltage	Measuring	Class	Options	Order Code	Price £
Transformer Rated Meters Pulse Communication					
3x57-288/100-500	Active	1	-	DAB13000	195.84
	Active & reactive	1	-	DCB13000	297.24
	Active	1	2 tariffs	DAB11001	215.29
	Active	1	2 tariffs	DAB13001	243.07
3x100-500	Active	1	4 tariffs	DAB13002	262.52
	Active	1	-	DAB12000	195.84
	Active & reactive	1	-	DCB12000	195.84
Direct Connection Meters Pulse Communication					
3x57-288/100-500	Active	2	-	DBB23000	247.24
	Active	1	-	DBB13000	261.13
	Active & reactive	1	-	DDB13000	336.14

Please contact us for other options and part number inc. DELTSingle

Accessories to type ODIN and DELTAplus

Voltage	Order Code	Price £
Front Mounting kit for panel mounting	981184	23.34
Long cover for wall mounting	981181	12.22
DIN-Rail for wall mounting	981102	4.44

Meter modules available for distribution board and panel board see pages 2/17 and 2/33

Digital DELTAsingle Meter

Description	Order Code	Price £
DELTAsingle 1ph kWh without pulsed output	FBU 11200	85.47
DELTAsingle 1ph kWh with pulsed output	FBB 11200	87.80
DELTAsingle 1ph kWh meter 2 tariff without pulsed output	FBU 11205	93.48
DELTAsingle 1ph kWh meter 2 tariff with pulsed output	FBB 11205	95.95
DELTAsingle 1ph kWh meter 4 tariff without pulsed output	FBU 11206	105.27
DELTAsingle 1ph kWh meter 4 tariff with pulsed output	FBB 11206	107.89
Wall Mounting	DIN-rail	5.01
Sealing Terminals	Short Cover	7.51



OD4165

ODIN Digital Meter

- Fully conform to MID IEC 62053-21 & 23 (Active energy)
- Direct connected OD 4165 Up to 65A
- CT connected OD4110 10A
- CT ratio programmable
- Accuracy Class 2
- Communication Pulse
- Display 7 digits
- IR output Yes
- Operating temperature -25°C to +55°C

Direct Connection 3 phase up to & including 65 amps

Line Voltage [V]	Pulse Output [Imp/kWh]	Footprint			Weight [kg]	Order Code	Price £
		H	W	D			
230/400	100	85	105	57.4	0.45	OD4165	186.46
230/400	100	85	105	57.4	0.45	OD4110	183.67



EE20

Serial Communication Adapter to type ODIN and DELTAplus

Type	Order Code	Price £
SCA for "MBus"	99837090	POA
SCA for "RS232"	99837091	POA

32A Mini Meter

Single Pole - 230v single tariff		Footprint			Weight Kg	Order Code	Price £
		H	W	D			
Without pulse output	51.50	90	52.5	58	0.25	EE20	133.59
Reset	53.00	90	52.5	58	0.25	EE20R	141.76
With pulse output							
Selectable	57.90	90	52.5	58	0.25	EE22	152.84
Resettable	62.10	90	52.5	58	0.25	EE22R	169.19
Remote Reset	57.30	90	52.5	58	0.25	EE22Rr	152.85



CTR 1/80

Current Transformers - for KW/H meters

Primary currents: 80 to 250A
 Secondary current: 5A
 Operating frequency: 40/60 Hz
 Operating temperature: -25/+50 C
 Accuracy: 0.5 - 1-3 (acc. to type)
 Regulations: IEC 185

Current transformers / through primary (cable dia. 21mm)	Order Code	Price £
I _{prim} 80A	CTR 1/80	17.88
I _{prim} 100A	CTR 1/100	17.88
I _{prim} 150A	CTR 1/150	17.88
I _{prim} 200A	CTR 1/200	18.89
I _{prim} 250A	CTR 1/250	18.89

For suitable enclosures please contact us.

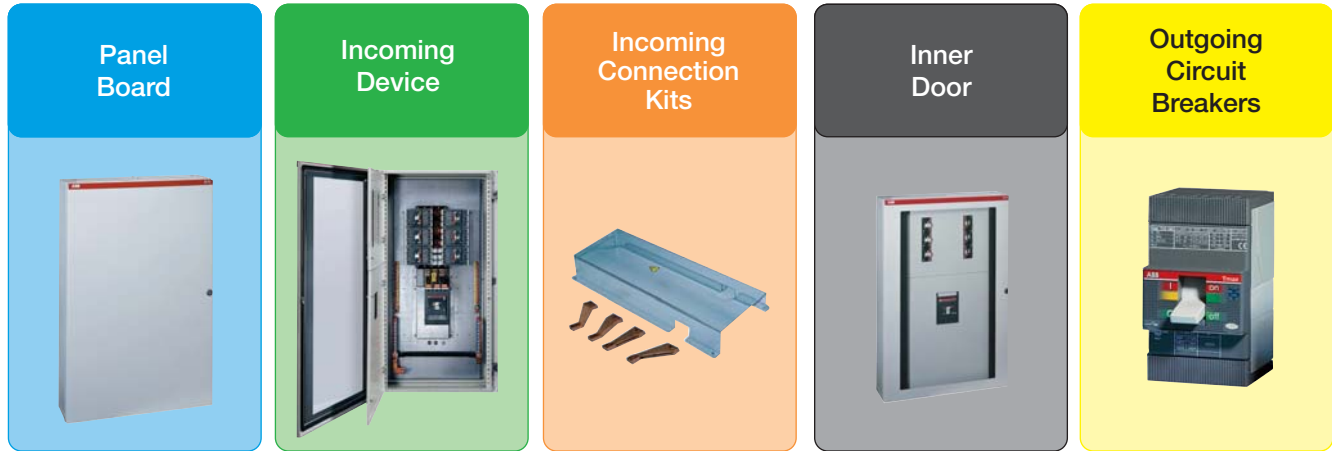


Distribution

Panel Board Overview



2



The examples below are for a 3 Pole panelboard. 4 Pole panelboards available on request

<p>Any 6, 12, 18 way board rated at 400A</p> <p>Any 6, 12, 18 way board rated at 800A</p>	<p>no incomer required</p>	<p>400A Direct Connection Kit (400DC3/4P)</p> <p>800A Direct Connection Kit (800DC3P)</p>	<p>P6X6DC</p>	<p>T1 or T3 (not mixed) Front connection terminals</p> <p>1SDA051482R1 1SDA051480R1 1SDA051483R1 1SDA051481R1 are required for all T3 devices</p>
<p>Any 6, 12, 18 way board rated at 400A</p>	<p>250A TP Switch (1SDA051327R1)</p> <p>250A TP MCCB 36kA (1SDA051247R1)</p> <p>400A TP Switch (1SDA054599R1)</p> <p>400A TP MCCB 36kA (1SDA054317R1)</p>	<p>250A MCCB/Switch Connection Kit (250T33P)</p> <p>400A MCCB/Switch Connection Kit (400T53P)</p>	<p>P6X6T3</p> <p>P6X6T5</p>	
<p>Any 6, 12, 18 way board rated at 630A</p>	<p>630A TP Switch (1SDA054601R1)</p> <p>630A TP MCCB 36kA (1SDA054396R1)</p> <p>630A TP MCCB 50kA (1SDA054404R1)</p>	<p>630A MCCB/Switch Connection Kit (630T53P)</p>	<p>P6X6T5</p>	
<p>Any 6, 12, 18 way board rated at 800A</p>	<p>800A TP Switch (1SDA020724R1)</p> <p>800A TP MCCB 36kA (1SDA018951R1)</p>	<p>800A MCCB/Switch Connection Kit (800S63P)</p> <p>800A TP MCCB 50kA (1SDA019059R1)</p>	<p>P6X6T6</p>	
<p>Page 2/37</p>	<p>Pages 2/28-29</p>	<p>Page 2/30</p>	<p>Page 2/30</p>	

For the Panelboard to be complete you need to order one item from each of the 5 colour coded sections.

Panel Board

- Colour Light Grey RAL 7035
- ASTA Certified Busbar
- Supplied with a plain door as standard
- Supplied without incomer, see options below.
- Up to 50kA 1 sec
- 4 pole version on request

3 Pole Panelboard

Ways	Pole	Copper Rating	MCCB Type	Order Code	Price £
6	3	400A	T1 outgoing	640T1PB3	572.26
6	3	400A	T3 outgoing	640T3PB3	662.27
6	3	800A	T3 outgoing	680T3PB3	688.94
12	3	400A	T1 outgoing	124T1PB3	746.72
12	3	400A	T3 outgoing	124T3PB3	880.06
12	3	800A	T1 outgoing	128T1PB3	944.51
12	3	800A	T3 outgoing	128T3PB3	1014.05
18	3	400A	T1 outgoing	184T1PB3	959.51
18	3	800A	T1 outgoing	188T1PB3	1102.64
18	3	800A	T3 outgoing	188T3PB3	1227.87

T1 and T3 breakers **cannot** be mixed in a standard Panelboard

3 Pole Custom Panelboard (for use with 400, 630 and 800A incomers only)

Ways	Pole	Copper Rating	MCCB Type	Order Code	Price £
6	3	400A	Any	CU640PB3	621.21
12	3	400A	Any	CU124PB3	808.41
18	3	400A	Any	CU184PB3	889.02
6	3	800A	Any	CU680PB3	653.38
12	3	800A	Any	CU128PB3	911.18
18	3	800A	Any	CU188PB3	1055.63
6	4	800A	Any	CU680PB4	680.05
12	4	800A	Any	CU128PB4	922.28
18	4	800A	Any	CU188PB4	1066.74

It is necessary to purchase plug in bases for MCCBs fitted in a Custom Panel Board see page 2/31



640T1PB3

MCCBs

T1 - Single Pole 25kA * Requires a single pole mounting base (see page 2/36)

Rating	Order Code	Price £
16	1SDA052616R1	54.67
20	1SDA052617R1	54.67
25	1SDA052618R1	54.67
32	1SDA052619R1	54.67
40	1SDA052620R1	54.67
50	1SDA052621R1	54.67
63	1SDA052622R1	54.67
80	1SDA052623R1	54.67
100	1SDA052624R1	54.67
125	1SDA052625R1	60.34
160	1SDA052626R1	66.15

*At 230V

T1 - 16kA

Rating	Order Code	Price £
16	1SDA050870R1	78.35
20	1SDA050871R1	78.35
25	1SDA050872R1	78.35
32	1SDA050873R1	78.35
40	1SDA050874R1	78.35
50	1SDA050875R1	78.35
63	1SDA050876R1	78.35
80	1SDA050877R1	80.48
100	1SDA050878R1	80.48
125	1SDA050879R1	82.40
160	1SDA050880R1	109.96

T1 - 25kA

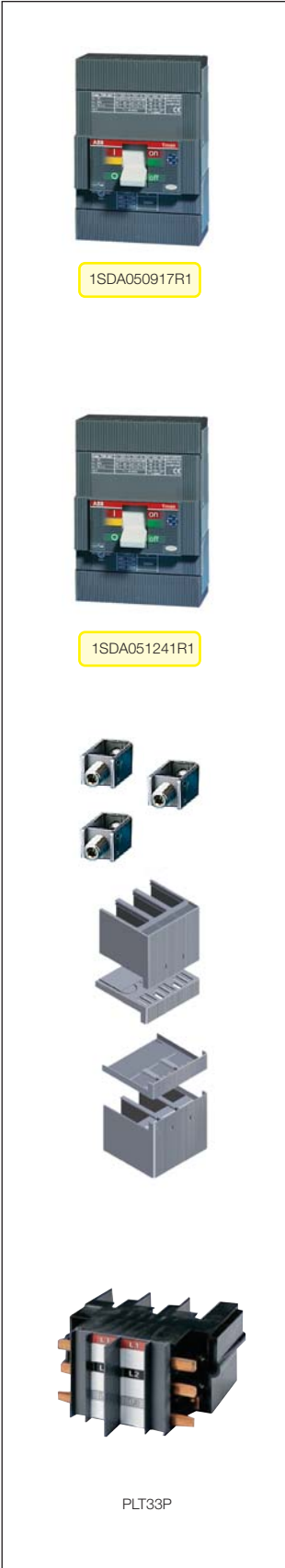
Rating	Order Code	Price £
25	1SDA050894R1	106.34
32	1SDA050895R1	106.34
40	1SDA050896R1	106.34
50	1SDA050897R1	106.34
63	1SDA050898R1	106.34
80	1SDA050899R1	109.80
100	1SDA050900R1	109.80
125	1SDA050901R1	116.67
160	1SDA050902R1	143.22

T1 - 36kA

Rating	Order Code	Price £
32	1SDA050917R1	125.65
40	1SDA050918R1	125.65
50	1SDA050919R1	125.65
63	1SDA050920R1	125.65
80	1SDA050921R1	128.20
100	1SDA050922R1	128.20
125	1SDA050923R1	128.20
160	1SDA050924R1	165.66

Enclosed MCCB's also available see page 3/8





MCCBs

T3 - 36kA

Rating	Order Code	Price £
63	1SDA051241R1	158.27
80	1SDA051242R1	158.27
100	1SDA051243R1	158.27
125	1SDA051244R1	174.56
160	1SDA051245R1	222.27
200	1SDA051246R1	222.27
250	1SDA051247R1	307.10

Front terminals with copper cables need to fitted to all T3 breakers see below

T3 - 50kA

Rating	Order Code	Price £
63	1SDA051263R1	174.10
80	1SDA051264R1	174.10
100	1SDA051265R1	174.10
125	1SDA051266R1	192.04
160	1SDA051267R1	244.49
200	1SDA051268R1	244.49
250	1SDA051269R1	337.81

Front terminals with copper cables need to fitted to all T3 breakers see below
Enclosed MCCB's also available see page 3/8

MCCB Accessories

Front Connection Terminal for Copper Cables - FC CU

Description	Order Code	Price £
T3 - 3 pieces	1SDA051482R1	7.24
T3 - 6 pieces	1SDA051480R1	14.48

High Terminal Cover HTC

Description	Order Code	Price £
T1 3P - 2 Pieces	1SDA051415R1	9.05
T3 3P - 2 Pieces	1SDA051419R1	12.93
T5 - 2 Pieces	1SDA054960R1	18.30
S6 - 2 Pieces	1SDA014040R1	16.49
T11P - 1 Piece	1CS8596	7.50

General Accessories

Description	Order Code	Price £
MCCB blanking module for inner door (210mm)	SZ-BP1	1.70
T1 Busbar shroud 10pcs	MODT1	4.74
T3 Busbar shroud 10pcs	MODT3	4.74
Spares Kit	SPARE1	53.01
T1SP Padlocking Device	1SDA060199R1	7.80
T1-T3 (3P) Padlocking Device	1SDA060534R1	8.84

Plug-in Bases

Description	Order Code	Price £
T1 single pole L1 + L3 plug in base	PLT11L1/L3P	27.50
T1 single pole L2 plug in base	PLT11L2/P	26.51
T1 three pole plug in base	PLT13P	58.98
T3 three pole plug in base	PLT33P	65.95
Busbar Shroud 630mm long (3 pieces)	SH630	12.26
Six Mounting brackets for T1 single pole MCCB	6MBT11P	20.28
Additional kit for neutral & earth bars	AK1NE	53.85
Extension kit for neutral & earth bars	EX1NE	27.59

PLT33P



Connection Kits



MCCB / Switch Disconnector

Incomer Options

Rating	Device	kA Rating	Order Code	Price £
400/800A	Direct Connection Kit 400A		400DC3/4P	45.76
	Direct Connection Kit 800A		800DC3P	72.58
	Inner Door to suit the above kits		P6X6DC	33.13
250A	3 Pole Connection Kit 250A T3 MCCB/Switch		250T33P	55.22
	Inner Door to suit the above kits		P6X6T3	45.76
	250A 3P Switch Disconnector T3D250		1SDA051327R1	168.66
	250A 3P MCCB T3N250	36kA	1SDA051247R1	307.10
400A	3 Pole Connection Kit 400A T5 MCCB/Switch		400T53P	61.88
	Inner Door to suit the above kits		P6X6T5	47.34
	400A 3P Switch Disconnector T5D400		1SDA054599R1	373.70
	400A 3P MCCB T5N400	36kA	1SDA054317R1	436.43
630A	3 Pole Connection Kit 630A T5 MCCB/Switch		630T53P	69.61
	Inner Door to suit the above kits		P6X6T5	47.34
	630A 3P Switch Disconnector T5D630		1SDA054601R1	533.27
	630A 3P MCCB T5N630	36kA	1SDA054396R1	695.12
	630A 3P MCCB T5S630	50kA	1SDA054404R1	764.63
800A	3 Pole Connection Kit 800A S6 MCCB/Switch		800S63P	61.54
	Inner Door to suit the above kits		P6X6S6	47.33
	800A 3P Switch Disconnector S6D800		1SDA020724R1	833.05
	800A 3P MCCB S6N800	35kA	1SDA018951R1	887.81
	800A 3P MCCB S6S800	50kA	1SDA019059R1	944.92

Enclosed MCCB's also available see page 3/8



Meter Modules

Panel Board 3 phase kWh meter module

Extension box with multi function meter (Deltaplus1300), CT's, wiring loom and MCB to pick up voltage. Can be mounted top or bottom of board.

Meter provides:

- kWh, kW per phase
- Current
- Phase voltage
- Power factor
- KVAh
- Pulsed output per kWh

CT size	Max Cable Diameter (Through CT)	Order Code	Price £
250A	31mm	PB250METMOD	611.16
400A	50mm	PB400METMOD	611.16
600A	50mm	PB630METMOD	611.16
800A	50mm	PB800METMOD	611.16

Side extension modules available to meter individual outgoing ways, price on application.

When fitting side extension modules together with a meter module please order the required number or RC2000 extension modules

Meter Modules for 204mm Deep Panelboards

CT size	Max Cable Diameter (Through CT)	Order Code	Price £
250A	31mm	PB250METMOD204	611.16
400A	50mm	PB400METMOD204	611.16
600A	50mm	PB630METMOD204	611.16
800A	50mm	PB800METMOD204	611.16



Glazed Door	Order Code	Price £
640T1PB3	PV1000	113.30
640T3PB3	PV1200	120.56
663T3PB3 - 124T1PB3 - 126T1PB3	PV1400	167.25
124T3PB3 - 126T3PB3	PV1600	177.67
184T1PB3 - 186T1PB3	PV1800	190.30
186T3PB3	PV2000	204.18

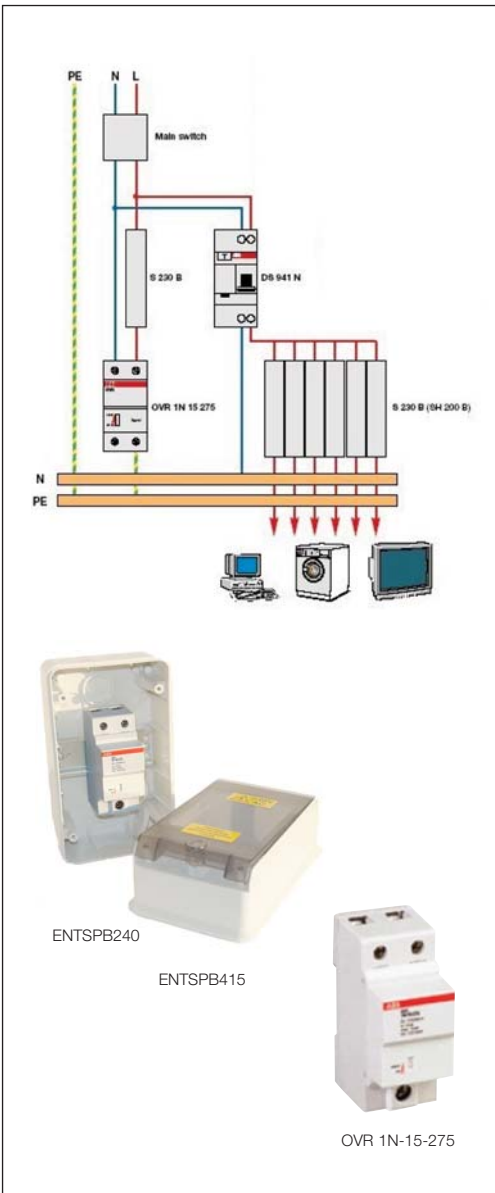
Plinth	Order Code	Price £
Four corner feet 100mm high for main structure	ZL1000	23.36
Finish profile for above plinth	ZL1001	19.88
Two feet 100mm high for side extension box	ZL3000	20.20
Finishing profile for side extension box	ZL2001	16.09

Plinths cannot be used when meter modules are fitted

Top / Bottom Extension Modules	Order Code	Price £
385 H x 204 D mm top/bottom structure extension box	RC1000	97.90
385 H x 204 D mm top/bottom cable way extension box	RC2000	85.80

Side Extension Modules	Order Code	Price £
Side extension box Uprights 1050mm	MI1000	61.85
Side extension box Cable Container 1050mm	VC1000	128.75
Side extension box Front Door 1050mm	PC1002	65.33
Side extension box Uprights 1250mm	MI1200	65.63
Side extension box Cable Container 1250mm	VC1200	133.18
Side extension box Front Door 1250mm	PC1202	83.31
Side extension box Uprights 1450mm	MI1400	72.27
Side extension box Cable Container 1450mm	VC1400	129.39
Side extension box Front Door 1450mm	PC1402	85.52
Side extension box Uprights 1650mm	MI1600	80.16
Side extension box Cable Container 1650mm	VC1600	140.74
Side extension box Front Door 1650mm	PC1602	90.24
Side extension box Uprights 1850mm	MI1800	86.48
Side extension box Cable Container 1850mm	VC1800	149.58
Side extension box Front Door 1850mm	PC1802	90.24
Side extension box Uprights 2050mm	MI2000	94.67
Side extension box Cable Container 2050mm	VC2000	154.63
Side extension box Front Door 2050mm	PC2002	89.94

When fitting side extension modules together with a top or bottom extension box please order the required number of RC2000 extension modules



Operating principle

Type 2 surge arrestors provide protection against transient overvoltages that occur on the electrical network (mains):

- Natural causes e.g. Lighting
- Other causes due to equipment, switching or operating actions on the electrical network

The choice of surge arrester is made according to several characteristics

- The protection level: U_p
- The run-off capacity:
- The network earthing system.
- The operating voltages (U_{U_1}) according to the nominal voltage (U_n)

Open or Enclosed Versions

- The compact enclosure is to IP55 2/ 4 module with clear lid for device status visualisation, and has knockouts in the back top and bottom for glanded or conduit entries, lid has snap action stay open feature and is complete with isolation and voltage hazard labelling
- Stand alone retro fit for existing applications with minimum of wiring disturbance
- Complies with BS6651 by meeting NFC 61-740 class 2 specification
- ENTSPB240 and ENTSPB415 are for single and three phase installations
- ENTSPB240P and ENTSPB415P are for the same application but feature replaceable phase and neutral plugs for minimum downtime in the event of a failure of any single phase
- All devices have visual status of device condition pass or failure modes
- Large wiring capacity terminals up to 35mm earth cable size and 25mm phase cables
- For open version suitable for mounting in consumer units or distribution boards see page 2/23

2



Enclosed Surge Suppressor

Description	Order Code	Price £
2 pole	ENTSPB240	144.46
4 pole	ENTSPB415	233.34

Pluggable Surge Suppressor

Description	Order Code	Price £
2 pole	ENTSPB240P	166.68
4 pole	ENTSPB415P	255.57

**Contents**

Loadbreak Switches	3/2 - 3/5
Changeover Switches	3/6
Switch Fuses	3/7
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Loadbreak and Switch Fuses Accessories	3/10
Fuses	3/11 - 3/12
Cam Switches	3/13 - 3/14

3



S37K5N



S47K5NSS

Plastic 7.5kW...15kW 3 pole 7.5kW...26kW 4 pole

- IP65 three and four-pole switch disconnectors suitable for load break switching or isolation. Polycarbonate enclosed. IEC 947-3

Amps (Ith)	AC23 kW	AC23Hp	Dimensions			Number of Poles	Order Code	Price £
			H	W	D			
20	7.5	10	125	100	107	3	S37K5N	18.39
40	15.0	20	125	100	107	3	S315KN	24.16
20	7.5	10	125	100	107	4	S47K5N	21.25
40	15.0	20	125	100	107	4	S415KN	27.01
50	18.5	25	170	140	108	4	S418KN	42.79
63	26.0	35	170	140	108	4	S426KN	60.29

Stainless Steel 4 pole 7.5kW...26kW

- Stainless Steel (316 grade) enclosed switch suitable for food or pharmaceutical industries. IP65. IEC 947-3

Amps (Ith)	AC23 kW	AC23Hp	Dimensions			Number of Poles	Order Code	Price £
			H	W	D			
20	7.5	10	180	171	150	4	S47K5NSS	121.40
40	15.0	20	180	171	150	4	S415KNSS	129.96
63	26.0	35	240	196	150	4	S426KNSS	155.67

Auxiliary Contacts

Auxiliary contacts	n.o.	n.c.	Order Code	Price £
10	1	-	SA-10	5.45
10	1	1	SA-11	6.80
10	2	1	SA-21	8.15

Note: A maximum of two auxiliary contact blocks can be fitted to each switch

3 - 4 - 6 pole 16...125 amps

- IP65 rated
- Grey plastic enclosure
- Standard handle - Red/Yellow (padlockable in the off position)
- Cable entries top and bottom
- All OTP16 (excluding 3p) /25/32 all have 25/20mm reducers



OTP16BA3M



OTP25BA3M



OTP45BA3M



OTP80BA3U

Rating @ 415v				Cable entries	Dimensions			Number of Poles	Order Code	Price £
[Ith A]	[AC22]	[AC23]	kW		H	W	D			
25	16	16	7.5	3P-2xM20	120	85	60	3+ solid neutral	OTP16BA3M	16.41
				4P-2xM25+M16	150	130	60	4	OTP16BA4M	22.09
					150	130	85	6	OTP16BA6M	48.71
32	25	20	9	2xM25+M16	150	130	60	3+ solid neutral	OTP25BA3M	21.15
					150	130	60	4	OTP25BA4M	24.30
					150	130	85	6	OTP25BA6M	51.99
40	40	23	11	2xM25+M16	150	130	60	3+ solid neutral	OTP32BA3M	22.94
					150	130	60	4	OTP32BA4M	26.15
					150	130	85	6	OTP32BA6M	55.37
63	63	45	22	2xM32+M16	200	145	90	3+ solid neutral	OTP45BA3M	31.86
					200	145	90	4	OTP45BA4M	36.84
					200	145	90	6	OTP45BA6M	70.12
80	80	75	37	2xM32+M16	200	145	90	3+ solid neutral	OTP63BA3M	40.40
					200	145	90	4	OTP63BA4M	47.53
					200	145	90	6	OTP63BA6M	83.19
80	80	55	30	Blank plates	400	200	140	3+ solid neutral	OTP80BA3U	73.09
					400	200	140	4	OTP80BA4U	101.31
					400	200	140	6	OTP80BA6U	176.47
125	125	90	45	Blank plates	400	200	140	3+ solid neutral	OTP125BA3U	130.72
					400	200	140	4	OTP125BA4U	150.91
					400	200	140	6	OTP125BA6U	237.66

"New enclosure dimensions to improve termination of cables"

3 - 4 pole 20...800A

- IP65 rated
- Powder coated textured finish (RAL 7035)
- All 3 pole switches include detachable neutral link (OT160 solid link)
- Hinged lid complete with 2 fastening screws (removable)
- Padlockable pistol grip handle as standard
- Removable gland plates fitted top and bottom (see below for knockout configurations)
- Spreader Boxes available see page 3/9
- 2 gland plates included one blank (bottom), one configured as below (top)



OT100TPN



OT315TPN

Rating @ 415v			Max. Cable Diameter	Dimensions			Number of Poles	Order Code	Price £
[Ith A]	[AC22]	[AC23]		H	W	D			
32	25	20	10mm ²	160	160	120	3 + detachable neutral	OT20TPN	67.61
							4	OT20FP	73.80
40	40	23	10mm ²	160	160	120	3 + detachable neutral	OT32TPN	82.34
							4	OT32FP	88.14
80	80	75	35mm ²	300	240	120	3 + detachable neutral	OT63TPN	134.07
							4	OT63FP	141.93
115	100	80	70mm ²	400	300	160	3 + detachable neutral	OT100TPN	210.52
							4	OT100FP	220.45
125	125	90	70mm ²	400	300	160	3 + detachable neutral	OT125TPN	225.73
							4	OT125FP	232.42
160	160	135	70mm ²	500	360	160	3 + solid neutral	OT160TPN	345.98
							4	OT160FP	360.22
200	200	200	95mm ²	500	360	160	3 + detachable neutral	OT200TPN	378.59
							4	OT200FP	400.87
315	315	315	95mm ²	500	360	160	3 + detachable neutral	OT315TPN	434.22
							4	OT315FP	466.20
500	500	500	120mm ²	600	400	200	3 + detachable neutral	OT400TPN	618.72
							4	OT400FP	657.01
630	630	630	120mm ²	600	400	200	3 + detachable neutral	OT630TPN	931.42
							4	OT630FP	978.55
800	800	720	120mm ²	600	400	200	3 + detachable neutral	OT800TPN	1200.20
							4	OT800FP	1269.64

Knockout Configuration: (One supplied blank, one supplied as below)

20 - 32A	2 x 20mm	1 x 25mm (centre)	
63 - 100 - 125A	1 x 25mm	1 x 32mm	1 x 40mm (centre)
160 - 800A	Blank gland plates		

3 - 4 pole 20...800A

- IP65 rated
- Polished finish available , see below
- Enclosures fabricated from 316 stainless steel complete with bolt on lid
- Padlockable pistol grip handle as standard
- Removable gland plates fitted top and bottom (see below for knockout configurations)
- All 3 pole switches include a detachable neutral link (OT160 solid link)
- Generous space for incoming and outgoing cables
- Spreader Boxes not available



OT100TPNSSB

Rating @ 415v			Dimensions			Number of Poles	Order Code	Price £
[Ith A]	[AC22]	[AC23]	H	W	D			
32	25	20	160	160	120	3 + detachable neutral	OT20TPNSSB	139.48
						4	OT20FPSSB	147.25
40	40	23	160	160	120	3 + detachable neutral	OT32TPNSSB	140.66
						4	OT32FPSSB	147.15
80	80	75	200	240	120	3 + detachable neutral	OT63TPNSSB	168.96
						4	OT63FPSSB	178.53
115	100	80	300	300	160	3 + detachable neutral	OT100TPNSSB	256.05
						4	OT100FPSSB	266.75
125	125	90	300	300	160	3 + detachable neutral	OT125TPNSSB	281.73
						4	OT125FPSSB	299.52
160	160	135	300	300	160	3 + solid neutral	OT160TPNSSB	392.89
						4	OT160FPSSB	431.93
200	200	200	360	360	160	3 + detachable neutral	OT200TPNSSB	424.41
						4	OT200FPSSB	487.98
315	315	315	360	360	160	3 + detachable neutral	OT315TPNSSB	450.28
						4	OT315FPSSB	522.94
500	500	500	400	400	200	3 + detachable neutral	OT400TPNSSB	607.74
						4	OT400FPSSB	651.75
630	630	630	500	500	350	3 + detachable neutral	OT630TPNSSB	914.86
						4	OT630FPSSB	963.96
800	800	720	500	500	350	3 + detachable neutral	OT800TPNSSB	1071.36
						4	OT800FPSSB	1156.67

To order polished version:

Replace the 'B' with 'P' in the order code and add £35.00 to the list price.

eg: 100A 3 pole polished enclosure becomes OT100TPNSSP	List Price	281.20
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"New enclosure dimensions to improve termination of cables"

3 - 4 pole 20...1600A

- IP65 rated
- Powder coated textured finish (RAL 7035)
- Hinged lid complete with 2 fastening screws (removable)
- Padlockable pistol grip handle as standard
- Removable gland plates fitted top and bottom (see below for knockout configurations)
- Spreader Boxes available see page 3/9
- 2 gland plates included one blank (bottom), one configured as below (top)



Rating @ 415v [lth A]		Dimensions			Spreader Box	Order Code	Price £
		H	W	D			
20A	3 pole	300	240	160	SB5G	OT20TPNC	191.71
	4 pole	300	240	160	SB5G	OT20FPC	201.35
32A	3 pole	300	240	160	SB5G	OT32TPNC	195.66
	4 pole	300	240	160	SB5G	OT32FPC	206.63
63A	3 pole	300	240	160	SB5G	OT63TPNC	226.79
	4 pole	300	240	160	SB5G	OT63FPC	242.14
100A	3 pole	300	240	160	SB5G	OT100TPNC	301.58
	4 pole	300	240	160	SB5G	OT100FPC	334.90
125A	3 pole	300	240	160	SB5G	OT125TPNC	310.35
	4 pole	300	240	160	SB5G	OT125FPC	342.79
200A	3 pole	300	240	160	SB5G	OT200TPNC	773.35
	4 pole	300	240	160	SB5G	OT200FPC	834.64
315A	3 pole	800	600	300	SB8G	OT315TPNC	882.88
	4 pole	800	600	300	SB8G	OT315FPC	974.94
400A	3 pole	800	600	300	SB8G	OT400TPNC	1046.71
	4 pole	800	600	300	SB8G	OT400FPC	1147.50
630A	3 pole	800	600	300	SB8G	OT630TPNC	1314.21
	4 pole	800	600	300	SB8G	OT630FPC	1467.49
800A	3 pole	800	600	300	SB8G	OT800TPNC	1555.16
	4 pole	800	600	300	SB8G	OT800FPC	1734.90
1000A	3 pole	800	600	300	SB8G	OT1000TPNC	2357.34
	4 pole	800	600	300	SB8G	OT1000FPC	2580.91
1250A	3 pole	800	600	300	SB8G	OT1250TPNC	3067.46
	4 pole	800	600	300	SB8G	OT1250FPC	3694.28
1600A	3 pole	800	600	300	SB8G	OT1600TPNC	3602.24
	4 pole	800	600	300	SB8G	OT1600FPC	4404.39

Knockout Configuration: (One supplied blank, one supplied as below)

20 - 32A2 x 20mm 1 x 25mm (centre)

63 - 100 - 125A1 x 25mm 1 x 32mm 1 x 40mm (centre)

160 - 1600A Blank gland plates

3 - 4 Pole 20... 800A with Fuses

- IP65 rated
- All switches are supplied with fuses
- Enclosures fabricated from zintec sheet steel
- Powder coated textured finish (RAL 7035)
- All 3 pole switches include detachable neutral link
- Hinged lid complete with 2 fastening screws (removable)
- Padlockable pistol grip handle as standard
- Removable gland plates fitted top and bottom (see below for knockout configurations)
- Switches internally are rated IP20 on incoming terminals up to 63A. Switches 100A and above have a shroud fitted to incoming terminals to increase protection when the door is open.
- Spreader Boxes available see page 3/9
- 2 gland plates included one blank (bottom), one configured as below (top)

"New enclosure dimensions to improve termination of cables"



Rating @ 415V [Ith A]	AC22		Max. Cable Diameter	Dimensions H W D			Number of Poles	Order Code	Price £
	AC22	AC23		H	W	D			
20	20	20	10mm ²	300	240	160	3+detachable neutral	OS20TPN	93.89
							4	OS20FP	105.34
32	32	32	10mm ²	300	240	160	3+detachable neutral	OS32TPN	123.07
							4	OS32FP	131.79
63	63	63	25mm ²	400	300	160	3+detachable neutral	OS63TPN	208.07
							4	OS63FP	220.46
125	100	100*	70mm ²	400	300	160	3+detachable neutral	OS100TPN	352.54
							4	OS100FP	404.48
125	125	125*	70mm ²	400	300	160	3+detachable neutral	OS125TPN	381.27
							4	OS125FP	422.47
160	160	160*	150mm ²	500	360	160	3+solid neutral	OS160TPN	409.00
							4	OS160FP	483.32
200	200	200	185mm ²	600	400	260	3+detachable neutral	OS200TPN	515.87
							4	OS200FP	604.83
315	315	315	185mm ²	600	400	260	3+detachable neutral	OS315TPN	614.16
							4	OS315FP	734.48
400	400	400	185mm ²	600	400	260	3+detachable neutral	OS400TPN	977.63
							4	OS400FP	1082.56
630	630	630	300mm ²	800	600	300	3+detachable neutral	OS630TPN	1436.43
							4	OS630FP	1624.03
800	800	720	300mm ²	800	600	300	3+detachable neutral	OS800TPN	1685.73
							4	OS800FP	1912.97

*AC23B

For spare fuses see page 3/10-11

Knockout Configuration: (One supplied blank, one supplied as below)

20 - 32A	2 x 20mm	1 x 25mm (centre)	
63 - 100 - 125A	1 x 25mm	1 x 32mm	1 x 40mm (centre)
160 - 800A	Blank gland plates		



MCCB 3 - 4 pole and RCD 32...630A

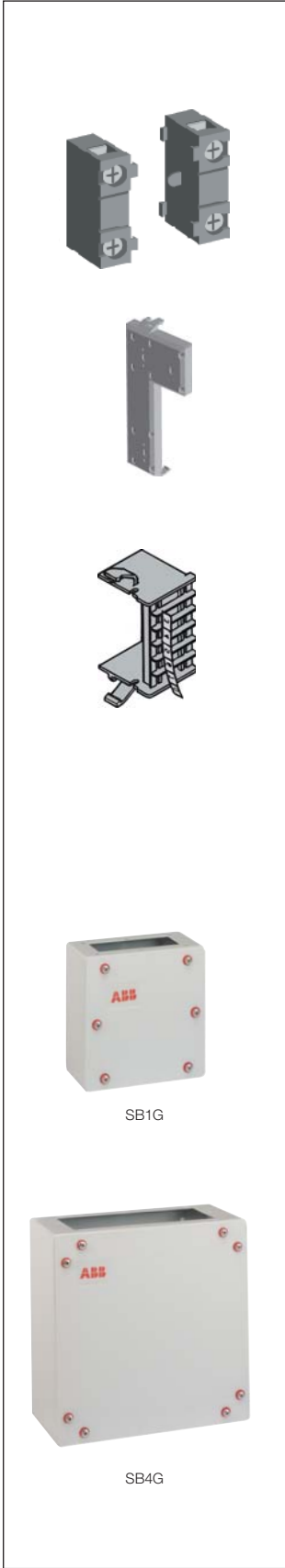
- IP54 rated
- Powder coated textured finish (RAL 7035)
- Hinged lid complete with 2 fastening screws (removable)
- Removable gland plates fitted top and bottom (see below for knockout configurations)
- Spreader Boxes available see page 3/9
- Icu = 36kA@415v

Rating @ 415v		Dimensions			Spreader Box	Order Code	Price £
[lth A]		H	W	D			
32A	3pole	300	300	187*	SB2G	MCCB32TP	305.02
	4pole	300	300	187*	SB2G	MCCB32FP	352.98
	4pole RCD	300	300	187*	SB2G	MCCB32RCD	630.78
63A	3pole	300	300	187*	SB2G	MCCB63TP	305.02
	4pole	300	300	187*	SB2G	MCCB63FP	352.98
	4pole RCD	300	300	187*	SB2G	MCCB63RCD	630.78
100A	3pole	300	300	187*	SB2G	MCCB100TP	305.02
	4pole	300	300	187*	SB2G	MCCB100FP	352.98
	4pole RCD	300	300	187*	SB2G	MCCB100RCD	630.78
125A	3pole	300	300	187*	SB2G	MCCB125TP	307.80
	4pole	300	300	187*	SB2G	MCCB125FP	376.31
	4pole RCD	300	300	187*	SB2G	MCCB125RCD	654.14
160A	3pole	300	300	187*	SB2G	MCCB160TP	307.80
	4pole	300	300	187*	SB2G	MCCB160FP	376.31
	4pole RCD	300	300	187*	SB2G	MCCB160RCD	654.14
250A	3pole	360	360	180*	SB2G	MCCB250TP	518.17
	4pole	360	360	180*	SB2G	MCCB250FP	631.25
	4pole RCD	360	360	180*	SB2G	MCCB250RCD	1016.65
400A	3pole	360	360	260**	SB3G	MCCB400TP	673.16
	4pole	360	360	260**	SB3G	MCCB400FP	820.94
	4pole RCD	360	360	260**	SB3G	MCCB400RCD	1523.24
630A	3pole	460	460	260**	SB3G	MCCB630TP	885.88
	4pole	460	460	260**	SB3G	MCCB630FP	1079.79
	4pole RCD	460	460	260**	SB3G	MCCB630RCD	1782.44

* add 59mm for handle ** add 50mm for handle

Knockout Configuration:

20 - 32A	2 x 20mm	1 x 25mm	
63 - 100 - 125A	1 x 25mm	1 x 32mm	1 x 40mm (centre)
160 - 800A	Blank gland plates		



Auxiliary Contacts

Description	Mounting Position	Suitable Switch	Order Code	Price £
Auxiliary Contact n/o	Right hand side (max 2)	OT16 ... 125	OA1G10	4.36
Auxiliary Contact n/c	Left hand side (max 2)	OT16 ... 125	OA1G01	4.36
Auxiliary Contact n/o	Max 6 contacts per switch	OS20 ... 32	OA1G10 ¹⁾	4.36
Auxiliary Contact n/c	Max 6 contacts per switch	OS20 ... 32	OA3G01 ¹⁾	4.36
Auxiliary Contact n/o	Max 8 contacts per switch	OS63	OA1G10	4.36
Auxiliary Contact n/c	Max 8 contacts per switch	OS63	OA3G01	4.36
Auxiliary Contact n/o	Max 11 contacts per switch	OS100...160	OA1G10	4.36
Auxiliary Contact n/c	Max 11 contacts per switch	OS100...160	OA3G01	4.36
Auxiliary Contact n/o		OT160	OBEA10 ²⁾	4.36
Auxiliary Contact n/c		OT160	OBEA01 ²⁾	4.36
Auxiliary Contact 1 n/o + 1 n/c (max 2 per side)		OT20 ... 125	OA2G11	5.95
Auxiliary Contact 1 n/o + 1 n/c		OT200 ... 315	OZXK12	24.17
Auxiliary Contact 1 n/o + 1 n/c		OT400 ... 800	OZXK1	24.17
Auxiliary Contact 1 n/o + 1 n/c		OS200 ... 800	OZXK1	24.17
Auxiliary Contact 1 change over (max 2)		OS20 ... 32	OA4B1C	6.69
Mounting Frame for OS20 .. 32			OSZ4	2.78
Mounting Frame for OT160			OEZNP1	7.33

1) Mounting frame required (OSZ4)

2) Mounting frame required (OEZNP1)

Spreader Boxes

- IP65 rated
- Spreader boxes can be provided to facilitate the glanding off of larger or multi cable applications.
- When terminating a cable remove the gland plate from the switch enclosure and mount onto the spreader box.
- The spreader box is then mounted on to the switch enclosure where the gland plate has been removed by the set screws provided.

Suitable for Switch	Hmm	Wmm	Dmm	Order Code	Price £
OT20, OT32, OT63, OS20, OS32	160	160	120	SB5G	53.34
OT100, OT125, OT160, OT200 OT315, OS63, OS100, OS125, OS160	260	260	125	SB2G	66.67
OT400, OT630, OT800, OS200, OS315, OS400	400	400	165	SB3G	93.34
OS630, OS800	500	500	155	SB4G	108.90

SB1G

SB4G

Switching - BS Fuse Range



3



ANIT



ATIA
ATIS



AOS80-100



AOS125-200



ATCP
ATFP



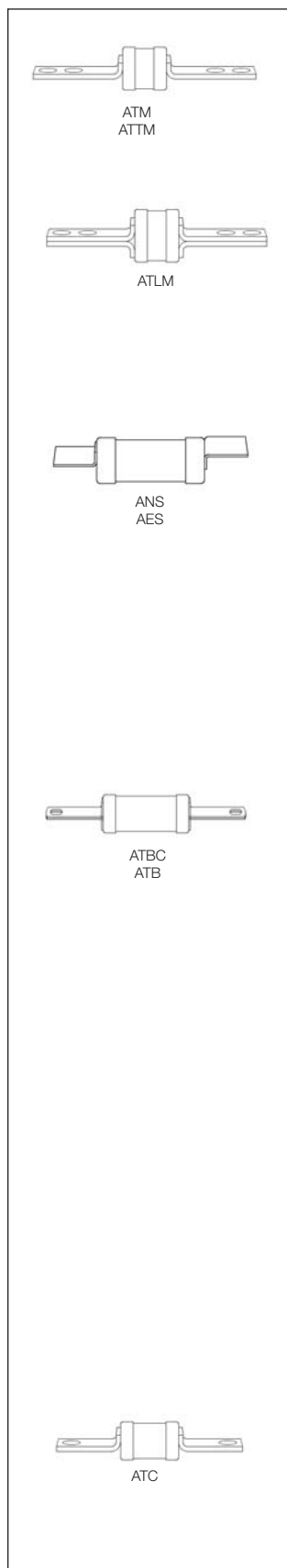
ATC



ATF
ATKF
ATMF
ATKM

Description (mm)	Fixing Centres Number	MEM Part Number	GEC Part Number	Bussman Part Number	ABB Part Number	Price £
2A A1 fuselink	44.5	2SA2	NIT2	NITD2	ANIT2	1.15
4A A1 fuselink	44.5	4SA2	NIT4	NITD4	ANIT4	1.15
6A A1 fuselink	44.5	6SA2	NIT6	NITD6	ANIT6	1.15
10A A1 fuselink	44.5	10SA2	NIT10	NITD10	ANIT10	1.15
16A A1 fuselink	44.5	16SA2	NIT16	NITD16	ANIT16	1.15
20A A1 fuselink	44.5	20SA2	NIT20	NITD20	ANIT20	1.54
25A fuselink	44.5	25SA2	NIT25	NITD25	ANIT25	1.65
32A fuselink	44.5	32SA2	NIT32	NITD32	ANIT32	1.65
2A A2 fuselink	73	2SB3	TIA2	AA02	ATIA2	1.85
4A A2 fuselink	73	4SB3	TIA4	AA04	ATIA4	1.85
6A A2 fuselink	73	6SB3	TIA6	AA06	ATIA6	1.85
10A A2 fuselink	73	10SB3	TIA10	AA10	ATIA10	1.85
16A A2 fuselink	73	16SB3	TIA16	AA16	ATIA16	1.85
20A A2 fuselink	73	20SB3	TIA20	AA20	ATIA20	2.05
25A A2 fuselink	73	25SB3	TIA25	AA25	ATIA25	2.18
32A A2 fuselink	73	32SB3	TIA32	AA32	ATIA32	2.18
35A A3 fuselink	73	35SB4	TIS35	-	ATIS35	3.47
40A A3 fuselink	73	40SB4	TIS40	BA040	ATIS40	3.47
50A A3 fuselink	73	50SB4	TIS50	BA050	ATIS50	3.47
63A A3 fuselink	73	63SB4	TIS63	BA063	ATIS63	3.70
80A fuselink	73	80SO	OS80	OSD80	AOS80	3.91
100A fuselink	73	100SO	OS100	OSD100	AOS100	4.32
125A fuselink	73	125SO	OS125	-	AOS125	8.99
160A fuselink	73	160SO	OS160	-	AOS160	9.89
200A fuselink	73	200SO	OS200	-	AOS200	10.36
80A A4 fuselink	94	80SDS	TCP80	CD80	ATCP80	5.29
100A A4 fuselink	94	100SDS	TCP100	CD100	ATCP100	5.29
125A fuselink	94	125SD5	TFP125	DD125	ATFP125	9.07
160A fuselink	94	160SD6	TFP160	DD160	ATFP160	9.89
200A fuselink	94	200SD6	TFP200	DD200	ATFP200	10.35
80A B1 fuselink	111	80SF5	TC80	-	ATC80	5.29
100A B1 fuselink	111	100SF5	TC100	-	ATC100	5.29
125A B2 fuselink	111	125SF5	TF125	-	ATF125	9.02
160A B2 fuselink	111	160SF5	TF160	-	ATF160	9.89
200A B2 fuselink	111	200SF5	TF200	-	ATF200	10.36
250A B3 fuselink	111	250SF7	TKF250	ED250	ATKF250	13.07
315A B3 fuselink	111	315SF7	TKF315	ED315	ATKF315	14.57
355A B4 fuselink	111	355SF8	TMF355	ED355	ATMF355	18.28
400A B4 fuselink	111	400SF8	TMF400	ED400	ATMF400	19.40
450A fuselink	111	450SF9	TMF450	-	ATMF450	28.34
500A fuselink	111	500SF9	TMF500	-	ATMF500	30.37
560A fuselink	111	560SF9	TMF560	-	ATMF560	31.50
630A fuselink	111	630SF9	TMF630	-	ATMF630	33.26
250A fuselink	133	250SG7	TKM250	EFS250	ATKM250	13.07
315A fuselink	133	315SG7	TKM315	EFS315	ATKM315	14.57

Switching - BS Fuse Range



Description (mm)	Fixing Centres Number	MEM Part Number	GEC Part Number	Bussman Part Number	ABB Part Number	Price £
355A C1 fuselink	133/184	355SH8	TM355	EF355	ATM355	18.28
400A C1 fuselink	133/184	400SH8	TM400	EF400	ATM400	19.40
450A C2 fuselink	133/184	450SH9	TTM450	FF450	ATTM450	28.34
500A C2 fuselink	133/184	500SH9	TTM500	FF500	ATTM500	30.24
560A C2 fuselink	133/184	560SH9	TTM560	FF560	ATTM560	31.50
630A C2 fuselink	133/184	630SH9	TTM630	FF630	ATTM630	33.26
710A C3 fuselink	133/184	710SH10	TLM710	GF710	ATLM710	64.03
800A C3 fuselink	133/184	800SH10	TLM800	GF800	ATLM800	75.31
2A F1 fuselink	60*	2SN2	NS2	N	ANS2	1.16
4A F1 fuselink	60*	4SN2	NS4	N	ANS4	1.16
6A F1 fuselink	60*	6SN2	NS6	N	ANS6	1.16
10A F1 fuselink	60*	10SN2	NS10	N	ANS10	1.16
16A F1 fuselink	60*	16SN2	NS16	N	ANS16	1.16
20A F1 fuselink	60*	20SN2	NS20	N	ANS20	1.39
25A F1 fuselink	60*	25SN2	NS25	N	ANS25	1.65
32A F1 fuselink	60*	32SN2	NS32	N	ANS35	1.65
20A F2 fuselink	68*	20SP	ES20	E	AES20	1.83
25A F2 fuselink	68*	25SP	ES25	E	AES25	2.18
32A F2 fuselink	68*	32SP	ES32	E	AES32	2.18
40A F2 fuselink	68*	40SP	ES40	E	AES40	2.43
50A F2 fuselink	68*	50SP	ES50	E	AES50	2.82
63A F2 fuselink	68*	63SP	ES63	E	AES63	3.20
2A fuselink	111	2SF3	TBC2	AD2	ATBC2	3.98
4A fuselink	111	4SF3	TBC4	AD4	ATBC4	3.98
6A fuselink	111	6SF3	TBC6	A	ATBC6	3.98
10A fuselink	111	10SF3	TBC10	AD10	ATBC10	3.98
16A fuselink	111	16SF3	TBC16	AD16	ATBC16	3.98
20A fuselink	111	20SF3	TBC20	AD20	ATBC20	3.98
25A fuselink	111	25SF3	TBC25	AD25	ATBC25	3.98
32A fuselink	111	32SF3	TBC32	AD32	ATBC32	4.27
40A B1 fuselink	111	40SF3	TBC40	BD40	ATBC40	4.27
50A B1 fuselink	111	50SF3	TBC50	BD50	ATBC50	4.34
63A B1 fuselink	111	63SF3	TBC63	BD63	ATBC63	4.68
32A A2 fuselink	73	32SB3M40	TIA32M40	AAO32M40	ATIA32M40	2.65
32A A2 fuselink	73	32SB3M50	TIA32M50	AAO32M50	ATIA32M50	2.65
32A A2 fuselink	73	32SB3M63	TIA32M63	AAO32M63	ATIA32M63	3.00
63A A3 fuselink	73	63SB4M80	TIS63M80	BAO63M80	ATIS63M80	5.28
63A A3 fuselink	73	63B4M100	TIS63M100	BAO63M100	ATIS63M100	5.51
100A A4 fuselink	94	100SD5M125	TCP100M125	CD100M125	ATCP100M125	8.99
100A A4 fuselink	94	100SD5M160	TCP100M160	CD100M160	ATCP100M160	9.09
100A A4 fuselink	94	100SD5M200	TCP100M200	CD100M160	ATCP100M200	10.29
100A B1 fuselink	111	100SF5M125	TC100M125	C	ATC100M125	8.98
100A B1 fuselink	111	100SF5M160	TC100M160	C	ATC100M160	9.11
100A B1 fuselink	111	100SF5M200	TC100M200	C	ATC100M200	10.29
200A B2 fuselink	111	200SF6M250	TF200M250	DD200M250	ATF200M250	14.21
200A B2 fuselink	111	200SF6M315	TF200M315	DD200M315	ATF200M315	15.70
315A B3 fuselink	111	315SF7M400	TKF315M400	ED315M400	ATKF315M400	20.35
400A B4 fuselink	111	400SF8M500	TMF400M500	ED400M500	ATMF400M500	48.87

3



ONA_EPB



ONA3EKP



ONA_EZB



OTC4-M25

Enclosed Cam switches

- For use where multi-pole switching is required
- Neutral and earth terminal, 6mm² included

ON-OFF Switches IP65

No of Poles	Function	Dimensions			Order Code	Price £
		H	W	D		
2 pole	O - I	96	96	70	ONA2EPB	13.07
3 pole	O - I	96	96	70	ONA3EPB	14.50
4 pole	O - I	96	96	70	ONA4EPB	15.91
5 pole	O - I	96	96	85	ONA5EPB	18.60
6 pole	O - I	96	96	85	ONA6EPB	20.17
8 pole	O - I	96	96	108	ONA8EPB	32.15
9 pole	O - I	96	96	138	ONA9EPB	34.35

ON-OFF Switches, Padlockable Handle IP65

No of Poles	Function	Dimensions			Order Code	Price £
		H	W	D		
2 pole	O - I	96	96	70	ONA2EZB	16.22
3 pole	O - I	96	96	70	ONA3EZB	17.65
4 pole	O - I	96	96	70	ONA4EZB	19.06
5 pole	O - I	96	96	85	ONA5EZB	21.75
6 pole	O - I	96	96	85	ONA6EZB	23.32
8 pole	O - I	96	96	108	ONA8EZB	35.30
9 pole	O - I	96	96	138	ONA9EZB	37.50

ON-OFF Switches, Key Operated IP54

No of Poles	Function	Dimensions			Order Code	Price £
		H	W	D		
3 pole	O - I	96	96	100	ONA2EKB	22.21

Change-over Switches IP65

No of Poles	Function	Dimensions			Order Code	Price £
		H	W	D		
1 pole	1 - O - 2	96	96	100	ONU1EPB	12.60

Reversing Switches IP65

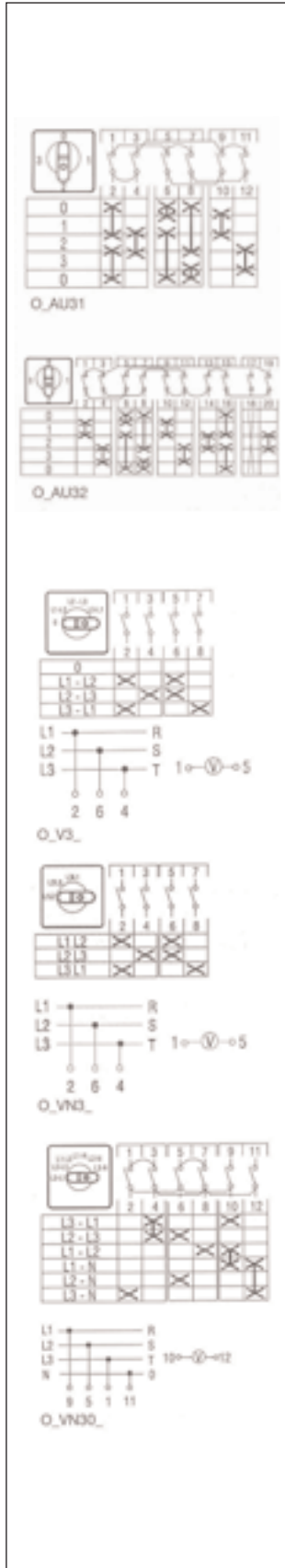
No of Poles	Function	Dimensions			Order Code	Price £
		H	W	D		
3 pole	1 - O - 2	96	96	100	ONW3EPB	24.42

Star Delta Switches IP65

(A)	Function	Dimensions			Order Code	Price £
		H	W	D		
25	O - Y - Δ	305	215	185	ONSDEPB	32.15
40	O - Y - Δ	305	215	185	OL40SDEPB	40.02

Empty Enclosure IP65

	Dimensions			Order Code	Price £
	H	W	D		
Complete with knockouts	96	96	108	OTC4-M25	7.18



Ammeter - Voltmeter Switches

- Black handle and frontplate with standard text are included.

Ammeter Switches

For 3 current transformer circuit, with 0 - position

Miniature Door Mounted	No of Stages	Thermal [A]	Order Code	Price £
Single Pole	3	10	OMAU31PB	13.74

Normal Door Mounted

Single Pole	3	25	ONAU31PB	15.35
2 Pole or Direct Measurement in 3 Phases	5	25	ONAU32PB	20.58

Modular DIN Rail Mounted

Single Pole	4	25	ONAU31M	17.17
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Voltmeter Switches

4 positions, 3 phase - 3 wire, with 0 - position

Miniature Door Mounted	No of Stages	Thermal [A]	Order Code	Price £
O, L1-L2, L2-L3, L3-L1	2	10	OMV3PB	11.35

Normal Door Mounted

O, L1-L2, L2-L3, L3-L1	2	25	ONV3PB	12.11
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Modular DIN Rail Mounted

O, L1-L2, L2-L3, L3-L1	2	25	ONV3M	13.55
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3 positions, 3 phase - 3 wire, with 0 - position

Miniature Door Mounted	No of Stages	Thermal [A]	Order Code	Price £
L1-L2, L2-L3, L3-L1	2	10	OMVN3PB	11.35

Normal Door Mounted

L1-L2, L2-L3, L3-L1	2	25	ONVN3PB	12.11
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Modular DIN Rail Mounted

L1-L2, L2-L3, L3-L1	2	25	ONVN3M	13.55
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7 positions, 3 phase to phase, 3 phase to neutral, with 0 - position

Miniature Door Mounted	No of Stages	Thermal [A]	Order Code	Price £
L1-L3, L2-L3, L1-L2 L1-N, L2-N, L3-N	3	10	OMVN3PB	11.35

Normal Door Mounted

L1-L3, L2-L3, L1-L2 L1-N, L2-N, L3-N	3	25	OMVN30PB	14.39
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Modular DIN Rail Mounted

L1-L3, L2-L3, L1-L2 L1-N, L2-N, L3-N	3	25	OMVN30M	14.39
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Contents

Direct on Line Starters	.4/2 - 4/4
Direct on Line Starters + Isolator	.4/5 - 4/6
Reversing Direct on Line Starters	.4/7
Star Delta Starters	.4/8- 4/9
Heating and Lighting Controls	.4/10 - 4/11
Contactors and Overloads	.4/12
DC Injection Brakes	.4/13 - 4/15
ACS 50 Drives	.4/16 - 4/17
Pushbutton Stations	.4/18 - 4/19



34 EXE0-D



Three Phase 400v up to 7.5kW - 400v coil

- Smoothly styled modern IP66 enclosed DOL starter, with generous cabling space for easy installation. Combined contactor/overload assembly can be unclipped from DIN rail to ease installation.

Overload Included			Overload Rating Amps		Order Code	Price £
Three Phase 415V [AC3]			From	To		
KW	hp	Amps				
0.37	0.55	1.22	1.0	1.4	14EXE0-D	65.73
0.55	0.75	1.50	1.3	1.8	24EXE0-D	65.73
0.75	1.0	2.00	1.7	2.4	34EXE0-D	65.73
1.1	1.5	2.60	2.2	3.1	44EXE0-D	65.73
1.5	2.0	3.50	2.8	4.0	54EXE0-D	65.73
2.2	3.0	5.00	4.5	6.5	64EXE0-D	65.73
4.0	5.5	8.50	7.5	11.0	84EXE0-D	65.73
5.5	7.5	11.5	10.0	14.0	124EXE0-D	65.73
7.5	10.0	15.5	13.0	19.0	184EXE0-D	74.54

Without Overload		Order Code	Price £
		84EXE0D-OL	41.57
		124EXE0D-OL	41.58
		184EXE0D-OL	45.43

Overload Selection see page 4/12

Three Phase 400v up to 7.5kW - 230v coil*

Overload Included			Overload Rating Amps		Order Code	Price £
Three Phase 415V [AC3]			From	To		
kW	hp	Amps				
0.37	0.55	1.22	1.0	1.4	12EXE0-D	65.73
0.55	0.75	1.50	1.3	1.8	22EXE0-D	65.73
0.75	1.0	2.00	1.7	2.4	32EXE0-D	65.73
1.1	1.5	2.60	2.2	3.1	42EXE0-D	65.73
1.5	2.0	3.50	2.8	4.0	52EXE0-D	65.73
2.2	3.0	5.00	4.5	6.5	62EXE0-D	65.73
4.0	5.5	8.50	7.5	11.0	82EXE0-D	65.73
5.5	7.5	11.5	10.0	14.0	122EXE0-D	65.73
7.5	10.0	15.5	13.0	19.0	182EXE0-D	74.54

* Can be converted to single phase

Without Overload		Order Code	Price £
		82EXE0D-OL	41.57
		122EXE0D-OL	41.57
		182EXE0D-OL	45.43

Overload Selection see page 4/12

Accessories	Order Code	Price £
Emergency Stop	ESPBKIT	19.72
Pilot Light 230v	PLPBKIT	13.60
2 Postion Switch	HAPBKIT	14.96

Above to be used when you remove the knockout on the front of the unit

Three Phase 400v up to 15kW - 400v coil

- Direct-On-Line Starter in metal enclosure IP65. Combined contactor/overload assembly can be unclipped from DIN rail to ease installation. IEC 947-4-1

Overload Included

KW	Three Phase 415V [AC3]		Overload Rating Amps		Order Code	Price £
	hp	Amps	From	To		
0.37	0.55	1.22	1.0	1.4	14EXE1-D	65.73
0.55	0.75	1.50	1.3	1.8	24EXE1-D	68.35
0.75	1.0	2.00	1.7	2.4	34EXE1-D	68.35
1.1	1.5	2.60	2.2	3.1	44EXE1-D	68.35
1.5	2.0	3.50	2.8	4.0	54EXE1D	68.35
2.2	3.0	5.00	4.5	6.5	64EXE1-D	68.35
4.0	5.5	8.50	7.5	11.0	84EXE1-D	68.35
5.5	7.5	11.5	10	14.0	124EXE1-D	75.90
7.5	10.0	15.5	13	19.0	184EXE1-D	78.75
11.0	15.0	22.0	18	25.0	264EXE1-D	97.96
15.0	20.0	30.0	22	32.0	314EXE1-D	123.54

Without Overload

4.0	5.5	8.50			84EXE1D-OL	44.21
5.5	7.5	11.5			124EXE1D-OL	51.75
7.5	10.0	15.5			184EXE1D-OL	54.60
11.0	15.0	22.0			264EXE1D-OL	65.63
15.0	20.0	30.0			314EXE1D-OL	81.00

Stainless Steel Enclosure - Without Overload

7.5	10.0	15.5			184EXE1DSS-OL	109.21
15.0	20.0	30.0			314EXE1DSS-OL	161.99

Overload Selection see page 4/12



84 EXE1-D

4



84 EXE1-D

Three Phase 400v up to 15kW with Overload - 230v coil*

- Direct-On-Line Starter in metal enclosure IP65. Combined contactor/overload assembly can be unclipped from DIN rail to ease installation. IEC 947-4-1

Overload Included Three Phase 415V [AC3]			Overload Rating Amps		Order Code	Price £
kW	hp	Amps	From	To		
0.37	0.55	1.22	1.0	1.4	12EXE1-D	68.35
0.55	0.75	1.50	1.3	1.8	22EXE1-D	68.35
0.75	1.0	2.00	1.7	2.4	32EXE1-D	68.35
1.1	1.5	2.60	2.2	3.1	42EXE1-D	68.35
1.5	2.0	3.50	2.8	4.0	52EXE1-D	68.35
2.2	3.0	5.00	4.5	6.5	62EXE1-D	68.35
4.0	5.5	8.50	7.5	11.0	82EXE1-D	68.35
5.5	7.5	11.5	10.0	14.0	122EXE1-D	75.90
7.5	10.0	15.5	13.0	19.0	182EXE1-D	78.75
11.0	15.0	22.0	18.0	25.0	262EXE1-D	97.96
15.0	20.0	30.0	24.0	32.0	312EXE1-D	123.54

* Can be converted to single phase

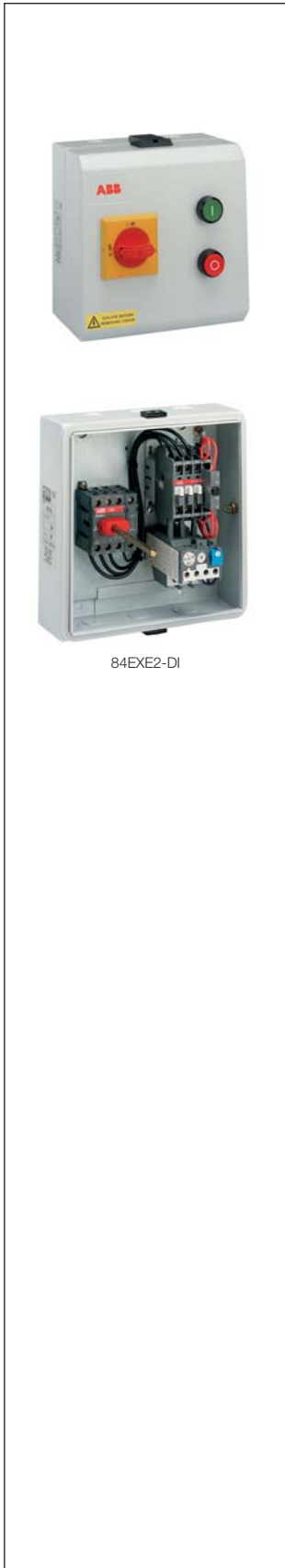
Without Overload

4.0	5.5	8.50	84EXE1D-OL	44.21
5.5	7.5	11.5	124EXE1D-OL	51.75
7.5	10.0	15.5	184EXE1D-OL	54.60
11.0	15.0	22.0	264EXE1D-OL	65.63
15.0	20.0	30.0	314EXE1D-OL	81.00

Stainless Steel Enclosure - Without Overload

7.5	10.0	15.5	182EXE1DSS-OL	109.21
15.0	20.0	30.0	312EXE1DSS-OL	161.99

Overload Selection see page 4/12



Three Phase 400v up to 15kW with Isolator - 400v coil

- Direct-On-Line Starter with isolator in metal enclosure IP65. IEC 947-4-1. installation.

Overload Included Three Phase 415V [AC3]			Overload Rating Amps		Order Code	Price £
kW	hp	Amps	From	To		
0.37	0.55	1.22	1.0	1.4	14EXE2-DI	151.59
0.55	0.75	1.50	1.3	1.8	24EXE2-DI	151.59
0.75	1.0	2.00	1.7	2.4	34EXE2-DI	151.59
1.1	1.5	2.60	2.2	3.1	44EXE2-DI	151.59
1.5	2.0	3.50	2.8	4.0	54EXE2-DI	151.59
2.2	3.0	5.00	4.5	6.5	64EXE2-DI	151.59
4.0	5.5	8.50	7.5	11.0	84EXE2-DI	151.59
5.5	7.5	11.5	10.0	19.0	124EXE2-DI	151.59
7.5	10.0	15.5	13.0	19.0	184EXE2-DI	151.59
11.0	15.0	22.0	18.0	25.0	264EXE2-DI	167.93
15.0	20.0	30.0	22.0	32.0	314EXE2-DI	201.67

Without Overload

4.0	5.5	8.50	84EXE2DI-OL	127.44
5.5	7.5	11.5	124EXE2DI-OL	127.44
7.5	10.0	15.5	184EXE2DI-OL	127.44
11.0	15.0	22.0	264EXE2DI-OL	135.60
15.0	20.0	30.0	314EXE2DI-OL	159.04

Stainless Steel Enclosure - Without Overload

7.5	10.0	15.5	184EXE2DISS-OL	254.86
15.0	20.0	30.0	314EXE2DISS-OL	318.06

Overload Selection see page 4/12

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Three Phase 400v up to 15kW with Isolator - 230v coil

- Direct-On-Line Starter with isolator in metal enclosure IP65. IEC 947-4-1. installation.

Overload Included Three Phase 415V [AC3]

kW	hp	Amps	Overload Rating Amps		Order Code	Price £
			From	To		
0.37	0.55	1.22	1.0	1.4	12EXE2-DI	151.59
0.55	0.75	1.50	1.3	1.8	22EXE2-DI	151.59
0.75	1.0	2.00	1.7	2.4	32EXE2-DI	151.59
1.1	1.5	2.60	2.2	3.1	42EXE2-DI	151.59
1.5	2.0	3.50	2.8	4.0	52EXE2-DI	151.59
2.2	3.0	5.00	4.5	6.5	62EXE2-DI	151.59
4.0	5.5	8.50	7.5	11.0	82EXE2-DI	151.59
5.5	7.5	11.5	10.0	19.0	122EXE2-DI	151.59
7.5	10.0	15.5	13.0	19.0	182EXE2-DI	151.59
11.0	15.0	22.0	18.0	25.0	262EXE2-DI	167.93
15.0	20.0	30.0	22.0	32.0	312EXE2-DI	201.67

Without Overload

4.0	5.5	8.50			82EXE2DI-OL	127.44
5.5	7.5	11.5			122EXE2DI-OL	127.43
7.5	10.0	15.5			182EXE2DI-OL	127.43
11.0	15.0	22.0			262EXE2DI-OL	135.60
15.0	20.0	30.0			312EXE2DI-OL	159.04

Stainless Steel Enclosure - Without Overload

7.5	10.0	15.5			182EXE2DISS-OL	54.60
15.0	20.0	30.0			312EXE2DISS-OL	81.00

Overload Selection see page 4/12

Slimline Version for Pillar Installation

All above items available in pillar configuration (inline) replace 2 in the order code with 3 making EXE2 into EXE3 (same list price)

Direct-on-Line Reversing Starters

(400v and 230v Control)
IP65 Metal Enclosure



32EXE2-DR

Three Phase 400v up to 7.5kW Reversing - 400v coil

- Direct-On-Line Starter with isolator in metal enclosure IP65. IEC 947-4-1. installation.

Overload Included Three Phase 415V [AC3]			Overload Rating Amps		Order Code	Price £
kW	hp	Amps	From	To		
0.55	0.75	1.50	1.3	1.8	24EXE2-DR	130.55
0.75	1.0	2.00	1.7	2.4	34EXE2-DR	130.55
1.1	1.5	2.60	2.2	3.1	44EXE2-DR	130.55
1.5	2.0	3.50	2.8	4.0	54EXE2-DR	130.55
2.2	3.0	5.00	4.5	6.5	64EXE2-DR	130.55
4.0	5.5	8.50	7.5	11.0	84EXE2-DR	130.55
5.5	7.5	11.5	10.0	19.0	124EXE2-DR	130.55
7.5	10.0	15.5	13.0	19.0	184EXE2-DR	130.55

Without Overload

7.5	10.0	15.5			184EXE2DR-OL	54.60
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Stainless Steel Enclosure - Without Overload

7.5	10.0	15.5			184EXE2DRSS-OL	54.60
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Overload Selection see page 4/12

Three Phase 400v up to 7.5kW Reversing - 230v coil

Overload Included Three Phase 415V [AC3]			Overload Rating Amps		Order Code	Price £
kW	hp	Amps	From	To		
0.55	0.75	1.50	1.3	1.8	22EXE2-DR	130.55
0.75	1.0	2.00	1.7	2.4	32EXE2-DR	130.55
1.1	1.5	2.60	2.2	3.1	42EXE2-DR	130.55
1.5	2.0	3.50	2.8	4.0	52EXE2-DR	130.55
2.2	3.0	5.00	4.5	6.5	62EXE2-DR	130.55
4.0	5.5	8.50	7.5	11.0	82EXE2-DR	130.55
5.5	7.5	11.5	10.0	19.0	122EXE2-DR	130.55
7.5	10.0	15.5	13.0	19.0	182EXE2-DR	130.55

Metal Enclosure - Without Overload

7.5	10.0	15.5			182EXE2DR-OL	54.60
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Stainless Steel Enclosure - Without Overload

7.5	10.0	15.5			182EXE2DRSS-OL	211.43
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Overload Selection see page 4/12

Star Delta Starter (400v & 230v Control)

IP65 Metal Enclosure

4



214 EXE2-S

Star-Delta up to 22kW 400V - 400v coil

- Star-Delta Starters with or without isolator in metal enclosure IEC 947-4-1.
- All three phase star delta starters, are complete with pushbuttons, overload and 415v or 230v coils. Resetting of overload via stop button.
- Complete with overload for standard motor duty, for other applications please consult us.

Three Phase 415V [AC3]			Overload Rating Amps		Order Code	Price £
kW	hp	Amps	From	To		
5.5	7.5	11.5	6.0	8.5	144EXE2S	247.10
11.0	15.0	22.0	10.0	14.0	214EXE2S	247.10
15.0	20.0	30.0	13.0	19.0	314EXE2S	257.17
22.0	30.0	44.0	24.0	32.0	454EXE2S	409.65

Without Overload

15.0	20.0	30.0			314EXE2S-OL	228.06
22.0	30.0	44.0			454EXE2S-OL	367.10

Stainless Steel Enclosure - Without Overload

15.0	20.0	30.0			314EXE2SSS-OL	364.92
22.0	30.0	44.0			454EXE2SSS-OL	587.35

Overload Selection see page 4/12

Star-Delta up to 22kW 400V - 230v coil

Three Phase 415V [AC3]			Overload Rating Amps		Order Code	Price £
kW	hp	Amps	From	To		
5.5	7.5	11.5	6.0	8.5	142EXE2S	247.10
11.0	15.0	22.0	10.0	14.0	212EXE2S	247.10
15.0	20.0	30.0	13.0	19.0	312EXE2S	257.17
22.0	30.0	44.0	24.0	32.0	452EXE2S	409.65

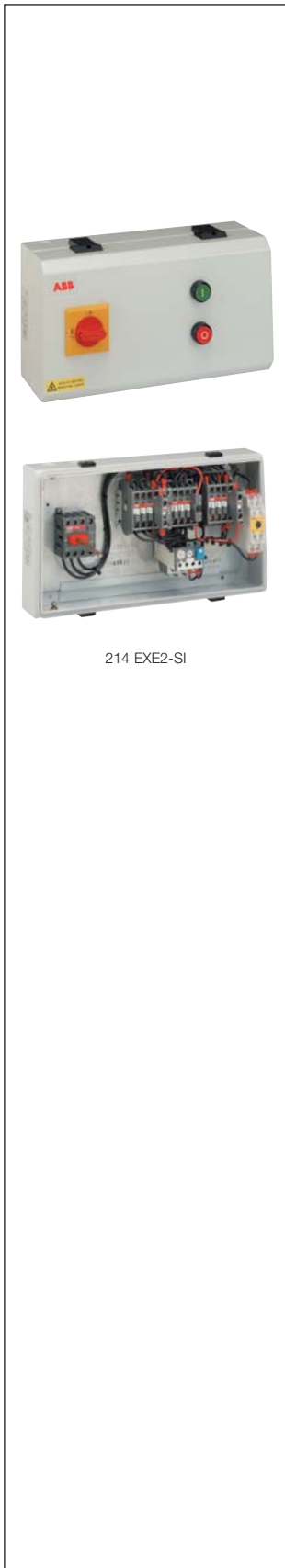
Without Overload

15.0	20.0	30.0			312EXE2S-OL	228.06
22.0	30.0	44.0			452EXE2S-OL	367.10

Stainless Steel Enclosure - Without Overload

15.0	20.0	30.0			312EXE2SSS-OL	364.92
22.0	30.0	44.0			452EXE2SSS-OL	587.35

Overload Selection see page 4/12



214 EXE2-SI

Star-Delta Isolator up to 22kW 400V - 400v coil

- Star-Delta Starters with or without isolator in metal enclosure IEC 947-4-1.
- All three phase star delta starters, are complete with pushbuttons, overload and 415v or 230v coils. Resetting of overload via stop button.
- Complete with overload for standard motor duty, for other applications please consult us.
- Available up to 90kw including stainless steel.

Three Phase 415V [AC3]			Overload Rating Amps		Order Code	Price £
kW	hp	Amps	From	To		
7.5	10.0	15.5	6.0	8.5	144EXE2SI	318.36
11.0	15.0	22.0	10.0	14.0	214EXE2SI	318.36
15.0	20.0	30.0	13.0	19.0	314EXE2SI	328.43
22.0	30.0	44.0	24.0	32.0	454EXE2SI	549.41

Without Overload

15.0	20.0	30.0			314EXE2SI-OL	299.33
22.0	30.0	44.0			454EXE2SI-OL	506.85

Stainless Steel Enclosure - Without Overload

15.0	20.0	30.0			314EXE2SSS-OL	364.92
22.0	30.0	44.0			452EXE2SSS-OL	587.35

Overload Selection see page 4/12

Star-Delta Isolator up to 22kW 400V - 230v coil

Three Phase 415V [AC3]			Overload Rating Amps		Order Code	Price £
kW	hp	Amps	From	To		
5.5	7.5	11.5	6.0	8.5	142EXE2SI	318.36
11.0	15.0	22.0	10.0	14.0	212EXE2SI	318.36
15.0	20.0	30.0	13.0	19.0	312EXE2SI	328.43
22.0	30.0	44.0	24.0	32.0	452EXE2SI	549.41

Without Overload

15.0	20.0	30.0			312EXE2SI-OL	299.33
22.0	30.0	44.0			452EXE2SI-OL	506.85

Stainless Steel Enclosure - Without Overload

15.0	20.0	30.0			312EXE2SS-OL	364.84
22.0	30.0	44.0			452EXE2SS-OL	587.35

Overload Selection see page 4/12



HL 20-230



HL 25P-230



HL 25-230



HL 63-230



Two Pole Contactor - 230v coil

IP 55 Plastic Enclosure

Heating AC1	Amps Per Pole			Optional Aux Contacts	Order Code	Price £
	Fluorescent and Mercury Vapour	Tungsten				
20A	12A	9A		-	HL20-230	28.50

Three & Four Pole Contactor - 230v coil

(Including neutral terminal strip)

IP 66 Plastic Enclosure

Heating AC1	Amps Per Pole			Optional Aux Contacts	Main Poles	Order Code	Price £
	Fluorescent and Mercury Vapour	Tungsten					
25A	16A	16A		-	3	HL25P-230	52.14
25A	16A	16A		-	4	HL25P-230-4	54.81
45A	30A	32A		-	3	HL45P-230	75.68
45A	30A	32A		-	4	HL45P-230-4	78.35

IP 65 Metal Enclosure

25A	16A	16A	A	3	HL25-230	55.00
25A	16A	16A	A	4	HL25-230-4	57.66
45A	30A	32A	A	3	HL45-230	78.55
45A	30A	32A	A	4	HL45-230-4	81.21
63A	40A	42A	B	3	HL63-230	216.16
80A	55A	55A	B	3	HL80-230	256.29
100A	70A	70A	B	3	HL100-230	292.87
180A	100A	100A	B	3	HL180-230	519.15
200A	130A	130A	B	3	HL200-230	666.03

Auxiliary Contacts

Description	N/O	N/C	Order Code	Price £
Auxiliary Contact A	1	x	CA5-10*	2.39
Auxiliary Contact A	x	1	CA5-01*	2.39
Auxiliary Contact B	2	1	HLA-201C	14.66

24 hour service not available*



Three & Four Pole Contactor - 230v (DC) coil for Silent Operation

IP 65 Plastic Enclosure

Amps Per Pole		Tungsten	Optional Aux Contacts	Main Poles	Order Code	Price
Heating AC1	Fluorescent & Mercury Vapour					
25A	16A	16A	-	4	HL25-230D	77.89
45A	30A	32A	-	4	HL45-230D	123.12
63A	40A	42	B	3	HL63-230D	257.42
80A	55A	55A	B	3	HL80-230D	294.35
100A	70A	70A	B	3	HL100-230D	336.40
180A	100A	100A	B	3	HL180-230D	639.15
200A	130A	130A	B	3	HL200-230D	765.19

Three & Four Pole Contactor - 400v coil

(Including neutral terminal strip)

IP 66 Plastic Enclosure

Amps Per Pole		Tungsten	Optional Aux Contacts	Main Poles	Order Code	Price £
Heating AC1	Fluorescent & Mercury Vapour					
25A	16A	16A	-	3	HL25P-400	52.14
25A	16A	16A	-	4	HL25P-400-4	54.81
45A	30A	32A	-	3	HL45P-400	75.68
45A	30A	32A	-	4	HL45P-400-4	78.35

IP 65 Metal Enclosure

25A	16A	16A	A	3	HL25-400	55.00
25A	16A	16A	A	4	HL25-400-4	57.66
45A	30A	32A	A	3	HL45-400	78.55
45A	30A	32A	A	4	HL45-400-4	81.21
63A	40A	42A	B	3	HL63-400	216.16
80A	55A	55A	B	3	HL80-400	256.29
100A	70A	70A	B	3	HL100-400	292.87
180A	100A	100A	B	3	HL180-400	519.15
200A	130A	130A	B	3	HL200-400	666.03

Auxiliary Contacts

Description	N/O	N/C	Order Code	Price £
Auxiliary Contact A	1	x	CA5-10*	2.39
Auxiliary Contact A	x	1	CA5-01*	2.39
Auxiliary Contact B	2	1	HLA-201C	14.66

24 hour service not available *



A9.30.10



ZA16



TA25.....

A Series Contactors - AC operational 3 pole

Amps [AC1]	Three Phase 415V [AC3]		Order Code	Price £
	kW	hp		
25A	4.0	5.5	A9.30.10*	16.44
25A	5.5	7.5	A12.30.10*	19.83
25A	7.5	10.0	A16.30.10*	26.17
32A	11.0	15.0	A26.30.10*	36.38
45A	15.0	20.0	A30.30.10*	54.79

* Please state coil voltage when ordering 230V / 400V

Spare Coils

Coil Voltages	Order Code	Price £
A9 - A16	ZA16*	9.89
A26 - A30	ZA40*	13.68

* Please state coil voltage when ordering 230V / 400V

T Series - Overloads

Full Load Current			Order Code	Price £
Min	...	Max.		
0.1	...	0.16	TA25DU0.16	20.77
0.16	...	0.25	TA25DU0.25	20.77
0.25	...	0.4	TA25DU0.4	20.77
0.4	...	0.63	TA25DU0.63	20.77
0.63	...	1.0	TA25DU1.0	20.77
1.0	...	1.4	TA25DU1.4	20.77
1.3	...	1.8	TA25DU1.8	20.77
1.7	...	2.4	TA25DU2.4	20.77
2.2	...	3.1	TA25DU3.1	20.77
2.8	...	4.0	TA25DU4.0	20.77
3.5	...	5.0	TA25DU5.0	20.77
4.5	...	6.5	TA25DU6.5	20.77
6.0	...	8.5	TA25DU8.5	20.77
7.5	...	11	TA25DU11	20.77
10	...	14	TA25DU14	21.86
13	...	19	TA25DU19	25.03
18	...	25	TA25DU25	27.81
24	...	32 (star delta only)	TA25DU32	36.60
22	...	32	TA42DU32	36.66

Production - DOL and Star Deltas

Used to increase the production output on machines which would normally take a long period of time to come to rest after the stop button has been pressed.
Available in three formats with DOL starter, with Star Delta starter and without starter (for use with existing DOL or Star Delta starter.)

Production brakes offer compliance with the **PUWER 98** regulations, relating to the stopping time of motors within the woodworking industry.

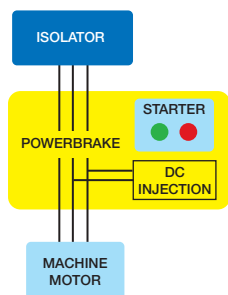
- For details of other options e.g tracking facility please contact us
- Reduced stopping time
- Increase production cycle
- Smooth controlled stopping
- Adjustable braking torque and stop time
- Easy installation
- Maintenance free
- Emergency stop button available on request. To order add (E) to end of part number (additional cost applies) (e.g. PBPS3-400 becomes PBPS3-400E)



PBPS



PBPS...E



Single Phase DOL

kW	Motor		Voltage	Without Starter		With DOL Starter	
	A	HP		Order Code	Price £	Order Code	Price £
1.1	4.1	1.5	220-240	PBP1-230-1P	397.31	PBPS1-230-1P	405.11
2.2	7.9	3	220-240	PBP2-230-1P	434.97	PBPS2-230-1P	443.44

Three Phase DOL

kW	A	HP	Voltage				
				Order Code	Price £	Order Code	Price £
3	6.6	4	380-415	PBP3-400	397.31	PBPS3-400	405.11
5.5	11.5	7.5	380-415	PBP5-400	434.97	PBPS5-400	443.44
7.5	15.5	10	380-415	PBP7-400	479.12	PBPS7-400	488.21
11	22	15	380-415	PBP11-400	557.02	PBPS11-400	566.11
15	30	20	380-415	PBP15-400	629.87	PBPS15-400	687.19
22	44	30	380-415	PBP22-400	849.17	PBPS22-400	1038.39
30	60	40	380-415	PBP30-400	1121.84		
37	72	50	380-415	PBP37-400	1386.70		
45	85	60	380-415	PBP45-400	1791.82		
55	105	75	380-415	PBP55-400	2321.57		
75	140	100	380-415	PBP75-400	2461.79		

Three Phase Star Delta**

kW	A	HP	Voltage		
				Order Code	Price £
5.5	11.5	7.5	380-415	PBPSY5-400*	628.43
7.5	15.5	10	380-415	PBPSY7-400*	655.57
11	22	15	380-415	PBPSY11-400*	702.12
15	30	20	380-415	PBPSY15-400*	763.47
22	44	30	380-415	PBPSY22-400*	1036.14
30	60	40	380-415	PBPSY30-400*	1186.11
37	72	50	380-415	PBPSY37-400*	1516.03

*24 hour service not available

**For heavy duty start e.g. Band Saws, we recommend brake size one size higher than the motor rating

Multi Motor

- PBM is a range of self contained DC injection brakes, stopping groups of up to 3 or 5 similar motors. Total motor power must not exceed the rating of PBM unit
- For further technical information contact sales desk for technical data sheet

kW	Motor		Voltage	Order Code	Price £
	A	HP			
5.5	11.5	7.5	380 - 415	PBM5-400-3*	567.74
				PBM5-400-5*	603.99
7.5	15.5	10	380 - 415	PBM7-400-3*	595.15
				PBM7-400-5*	631.38
11	22	15	380 - 415	PBM11-400-3*	711.59
				PBM11-400-5*	731.95
15	30	20	380 - 415	PBM15-400-3*	779.33
				PBM15-400-5*	876.75
22	44	30	380 - 415	PBM22-400-3*	967.68
				PBM22-400-5*	1130.42
30	60	40	380 - 415	PBM30-400-3*	1390.56
				PBM30-400-5*	1564.38

24 hour service not available *



PBC1.....

Emergency

In the case of an emergency, Powerbrake can be initialised by a safety device which when activated causes the Powerbrake to disengage the AC supply to the motor and inject a controlled DC current into the motor windings bringing the motor to a rapid rest safely.

Injection braking cannot operate in the event of supply failure

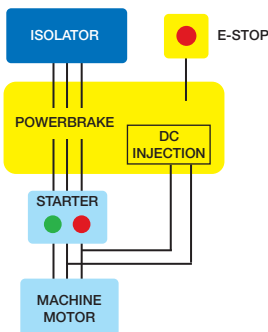
- Increased safety in hazardous machines
- Adjustable braking torque and stop time
- Smooth stopping
- Fault/Trip indication
- Easy installation
- Maintenance free

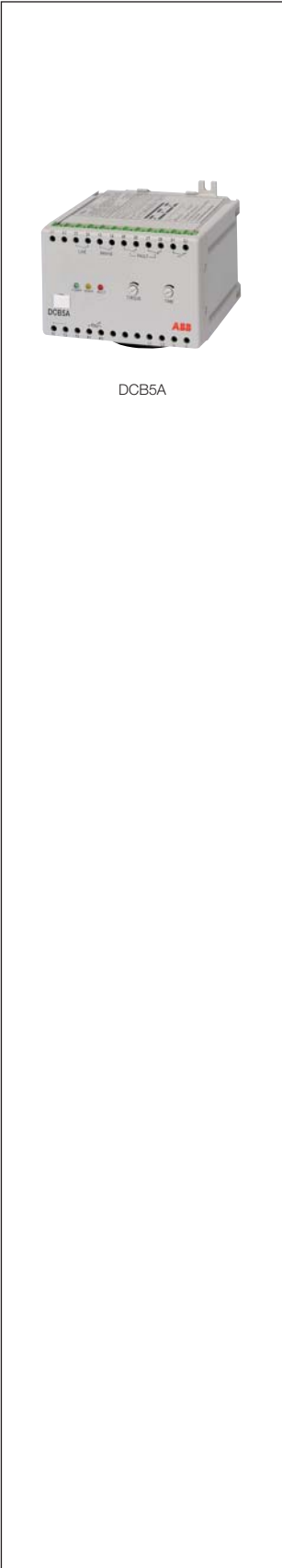
Single Phase

kW	A	HP	Voltage	Order Code	Price £
1.1	4.1	1.5	220-240	PBC1-230-1P	386.93
2.2	7.9	3	220-240	PBC2-230-1P	429.42

Three Phase

				Order Code	Price £
3	6.6	4	380-415	PBC3-400	386.93
5.5	11.5	7.5	380-415	PBC5-400	429.42
7.5	15.5	10	380-415	PBC7-400	473.93
11	22	15	380-415	PBC11-400	597.27
15	30	20	380-415	PBC15-400	649.44
22	44	30	380-415	PBC22-400	837.34
30	60	40	380-415	PBC30-400	1106.25
37	72	50	380-415	PBC37-400	1103.66
45	85	60	380-415	PBC45-400	1698.33
55	105	75	380-415	PBC55-400	2030.20
75	140	100	380-415	PBC75-400	2291.41





Modules

Solid state injection brakes provide frictionless fast, smooth braking of single and three phase AC induction motors by injecting a controlled DC current into the motor windings: this introduces a stationary magnetic field which exerts a braking torque on the rotor.

- Reduced stopping time
 - increased production
 - increased safety in hazardous machines
- Smooth controlled stopping
 - no wear on moving mechanical parts
- Adjustable braking torque and stop time
- Easy installation
- Maintenance free

kW	Motor HP	Voltage	Max. Brake Current (A) 10s Operation	Module Supply Voltage	Order Code	Price £
4	5.5	380/415	20	380/415	DCB4	148.51
				110/120	DCB5A115	200.10
5.5	7.5	380-415	30	220/240	DCB5A230	200.10
				380/415	DCB5A400	200.10
				110/120	DCB7115*	243.20
7.5	10	380-415	40	220/240	DCB7230*	243.20
				380/415	DCB7400*	243.20
				110/120	DCB15115*	457.63
15	20	380-415	75	220/240	DCB15230*	457.63
				380/415	DCB15400*	457.63
				110/120	DCB22115*	648.51
22	30	380-415	100	220/240	DCB22230*	648.51
				380/415	DCB22400*	648.51
				110/120	DCB30115*	815.38
30	40	380-415	150	220/240	DCB30230*	815.38
				380/415	DCB30400*	815.38
				110/120	DCB45115*	997.06
45	60	380-415	200	220/240	DCB45230*	997.06
				380/415	DCB45400*	997.06
				110/120	DCB75115*	1205.30
75	100	380-415	300	220/240	DCB75230*	1205.30
				380/415	DCB75400*	1205.30

*Comprises of separate control and power module



What is an ABB ACS drive?

The ABB component drives meet the requirements of OEMs, installation companies and panel builders. It is a component that is bought, together with other components from a logistical distributor. The drive is stocked, and the number of options and variants is optimized for logistical distribution.

Can be used for:

- Fans
- Pumps
- Gate Control
- Material Handling
- Conveyors

Description:

- Power range 0.18kW to 2.2kW (100-240v)
- IP20
- Integral EMC Filter for 1st environment EN61800-3
- Optimised switching frequency for low noise (up to 16kHz)
- NonEMC option available. Not suitable for domestic networks

Built-in EMC filter, 1-phase supply voltage 200/240 V, +10/-15%, 3-phase output 200/240 V

P _N kW	P _N hp	Output Nominal current	Output Max current	Input current A	Frame size	H1 mm	H2 mm	W mm	D mm	Weight kg	Order Code	Price £
0.18	0.25	1.4	2.1	4.4	A	170	146.5	45	128	0.65	ACS50-01E-01A4-2	81.00
0.37	0.5	2.2	3.3	6.9	A	170	146.5	45	128	0.7	ACS50-01E-02A2-2	84.00
0.75	1.0	4.3	6.5	10.8	B	170	146.5	67.5	128	0.9	ACS50-01E-04A3-2	99.00
1.5		7.6	11.4	18.2	D	226	203	70	159	1.1	ACS50-01E-07A6-2	142.24
2.2		9.8	14.7	22	D	226	203	70	159	1.1	ACS50-01E-09B8-2	169.52

No EMC filter, 1-phase supply voltage 200/240 V, +10/-15%, 3-phase output 200/240 V

P _N kW	P _N hp	Output Nominal current	Output Max current	Input current A	Frame size	H1 mm	H2 mm	W mm	D mm	Weight kg	Order Code	Price £
0.18	0.25	1.4	2.1	4.4	A	170	146.5	45	128	0.55	ACS50-01N-01A4-2	79.04
0.37	0.5	2.2	3.3	6.9	A	170	146.5	45	128	0.6	ACS50-01N-02A2-2	84.00
0.75	1.0	4.3	6.5	10.8	B	170	146.5	67.5	128	0.8	ACS50-01N-04A3-2	99.00
1.5		7.6	11.4	18.2	C	194	171	90	159	1.1	ACS50-01N-07A6-2	143.52
2.2		9.8	14.7	22	C	194	171	70	159	1.1	ACS50-01N-09A8-2	169.52

Built-in EMC filter, 1-phase supply voltage 100/120 V, +10/-15%, 3-phase output 200/240 V

P _N kW	P _N hp	Output Nominal current	Output Max current	Input current A	Frame size	H1 mm	H2 mm	W mm	D mm	Weight kg	Order Code	Price £
0.18	0.25	1.4	2.1	6.4	A	170	146.5	45	128	0.65	ACS50-01E-01A4-1	88.00
0.37	0.5	2.2	3.3	9.5	A	170	146.5	45	128	0.7	ACS50-01E-02A2-1	92.00

No EMC filter, 1-phase supply voltage 100/120 V, +10/-15%, 3-phase output 200/240 V

P _N kW	P _N hp	Output Nominal current	Output Max current	Input current A	Frame size	H1 mm	H2 mm	W mm	D mm	Weight kg	Order Code	Price £
0.18	0.25	1.4	2.1	6.4	A	170	146.5	45	128	0.55	ACS50-01N-01A4-1	88.00
0.37	0.5	2.2	3.3	9.5	A	170	146.5	45	128	0.6	ACS50-01N-02A2-1	92.00



ACS50-POT



SACL21

Potentiometer

Description	Order Code	Price £
Potentiometer (price for 8 pieces)	ACS50-POT	84.45
ACS50 mounting clip (price for a set of 50 pieces)	ACS50-CLIP	144.56

EMC Filter for 1st and 2nd Environment

Height mm	Width mm	Depth mm	Weight kg	Order Code	Price £
146.5	45	128	0.7	ACS50-IFAB-01	34.86

Price for 1 must be ordered in pack of 8

Input and output Chokes

L/mH	Dimensions mm			Weight kg	Cable max. mm ²	I/A	ACS50 frame size	Order Code	Price £
	H	W	D						
3.2	76	63	62	1.0	4	8.5	A	SACL21(input)	POA
1.5	92	76	63	1.3	10	15	B	SACL22(input)	POA
1.5	300	102	112	4.0	4	8	A/B	ACS-CHK-B3(output)	POA



Plastic Pushbutton Stations

- IP65 thermoplastic control station complete with actuator, contact blocks and legend plate. Supplied fully assembled. Other variations are available on request.

1 Way	Order Code	Price £
Start/Green	1GO	17.33
Stop/Red	1RC	17.33
Mushroom Head 37mm (twist release)	1RSC	23.38
Emergency Stop 37mm (stay-put) - to EN418	1RSC-EN	32.07
Mushroom Head 50mm (twist release)	1RMSC50	33.81
Emergency Stop (with key release) - to EN418	1RMSKC	35.56
Two-position switch	1H2 0-I	20.85
Two-position key switch (key removable both positions)	1K2 0-I	27.13
Three position switch	1H 3 I-0-II	POA
Three position key switch (key removable in all positions)	1K3 I-0-II	34.18



Plastic Pushbutton Stations

- IP65 thermoplastic control station complete with actuator, contact blocks and legend plate. Supplied fully assembled. Other variations are available on request.

2 Gang	Order Code	Price £
Start/Green and Stop/Red	2GORC	26.75
Start/Green and Red/Emergency Stop 37mm (stay-put) - to EN418	2GORSC-EN	34.84
3 Gang	Order Code	Price £
Forward/Green - Stop/Red - Reverse/Green	3GOGORC	41.06
Two Green and Red/Emergency Stop 37mm (twist release) - to EN418	3GOGORSC-EN	48.38

Stainless Steel Pushbutton Station

1 Gang Stainless Steel	Order Code	Price £
Emergency Stop 37mm (stay-put) - to EN418	1RSC-ENSS	57.05

Stainless Steel Pushbutton Enclosures 22.5mm IP63

Description	Order Code	Price £
1 Gang Empty Enclosure 55mm deep	010011001SS1	73.49
2 Gang Empty Enclosure 55mm deep	010011002SS2	79.61
3 Gang Empty Enclosure 55mm deep	010011003SS3	91.85

Spares

Spares	Order Code	Price £
Replacement contact block n/o (switch mounting)	MCB-10*	2.18
Replacement contact block n/c (switch mounting)	MCB-01*	2.18
Replacement contact block n/o (base mounting)	MCB-10B*•	2.18
Replacement contact block n/c (base mounting)	MCB-01B*•	2.18

* 24 hour service not available

- Use with stainless steel pushbutton station only



Domestic Equipment

Overview



5

Contents

PIR Motion Sensors	.5/2- 5/4
Alpha Wiring Accessories	.5/5 - 5/9
Alpha Grid Switches	.5/10 - 5/13
Alpha Dimmer Switches	.5/14 - 5/15
Internal Motion Sensors	.5/16 - 5/17
Consumer Units - Refer to Section 2/9	.2/2



The No. 1 in Europe

Due to their outstanding quality and reliability, they are Europe's leading movement detector.

Busch Watchdog 90

Security:

With its 90° range of detection the Watchdog 90 is the ideal movement detector. Wherever a specific corridor is to be kept under surveillance eg. entrance to a house, the horizontal and vertical adjustment make the Watchdog 90 easy to install.

Detection range:

The sensing range front to rear 12 metres, side to side 12 metres with 3 detection zones and service detection at the front door.

Areas of application:

Wherever a corridor of detection area is required.

Product characteristics:

- 4 combined optional settings for dusk sensor and switch-off delay
- high capacity 16A relay, any type of load
- suitable for wall and ceiling installation
- -25°C up to +55°C
- IP 55

Description

90 Brown

90 White

90 Anthracite

Order Code

6852 AGM-201-102-500

6852 AGM-204-102-500

6852 AGM-35-102-500

Price £

44.60

44.60

44.60

Busch Watchdog 220

Security all round the house, no one can approach the house within a frontal or bilateral range of 16 metres without activating the sensor. With its 220° all round angle of detection, it is also impossible to sneak up the side of the building. A creep-under protection feature that even detects intruders who crawl forward at extremely low level.

Holiday Security:

The Watchdog 220 is capable of simulating your presence while on holiday, simple by switching the operating mode to 'Comfort and Vacation'.

Detection range:

The sensing range extends to 16 m on all sides with 3 detection zones and service detection at the front door.

Areas of application:

Wherever a large detection area is required for the front or back of a building.

Product characteristics:

- detection range greater than 210°
- high capacity 16A relay, any type of load
- dusk sensor adjustable from 0.5 to 1000 lux, daytime operation
- switch off delay adjustable from 10 sec to 30 minutes
- additional short-time 1 sec pulse
- 5 operating modes including 3 new sensitivity settings
- suitable for wall and ceiling installation
- -25°C up to +55°C
- IP 55

Description

220 Brown

220 White

220 Anthracite

Order Code

6878 AGM-201-102-500

6878 AGM-204-102-500

6878 AGM-35-102-500

Price £

68.05

68.05

68.05

For modular internal passive infra-red options – please ask for our wiring accessories catalogue



Watchdog90

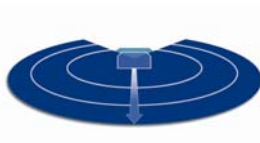
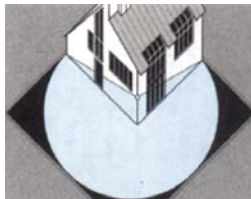


Watchdog 220





Watchdog 280



Busch Watchdog 280

Due to its horizontal detection range (greater than 270°), house frontages that are set back can also be monitored using a corner installation. The device is also fitted with further functions such as an anti-crawl-under zone and service detection at the front door.

Corner adapter:

It enables the device to be mounted on the corner of the house (Master 280).

Detection range:

The sensing range extends to 16 m on all sides with 3 detection zones and service detection at the front door.

Areas of application:

Wherever a large detection area is required e.g. for corner mounting in order to monitor both house frontages.

Product characteristics:

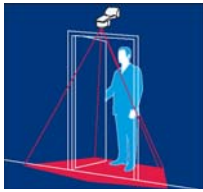
- detection range greater than 270°
- vertical detection on three levels
- high capacity 16A relay, any type of load
- dusk sensor adjustable from 0.5 to 1000 lux, daytime operation
- switch off delay adjustable from 10 sec to 30 minutes
- additional short-time 1 sec pulse
- 5 operating modes including 3 new sensitivity settings
- suitable for wall, ceiling and corner installation (using an adapter)
- -25°C up to +55°C
- IP 55

Description	Order Code	Price £
280 Brown	6880 AGM-201-102-500	74.76
280 White	6880 AGM-204-102-500	74.76
280 Anthracite	6880 AGM-35-102-500	74.76
Corner adaptor Brown	6886-201-500	5.30
Corner adaptor White	6886-204-500	5.30
Corner adaptor Anthracite	6886-35-500	5.30

For modular internal passive infra-red options – please ask for our wiring accessories catalogue



Watchdog Alarmtech 220



Busch Watchdog Alarmtech 220

The Alarmtech 220 provides the highest level of protection by utilising two security zones. Anyone entering the outer zone triggers the deterrent of a normal security light.

Breaching the inner zone triggers a flashing red light on the sensor which lets the person approaching know they are under close scrutiny. Simultaneously an additional output can activate an indoor light or alarm to create the impression of awareness inside the building.

Detection range:

The sensing range extends to 16 m on all sides with 2 detection zones including an inner security zone.

Areas of application:

Where a second output is required to activate an indoor light or alarm.

Product characteristics:

- 10AX relay, any type of load
- 120W/VA for second output
- hand-held remote control (optional)
- service or rear-field detection at the door
- 5 operating modes - including 3 new sensitivity settings
- suitable for wall & ceiling installation
- -25°C up to +55°C
- IP 55

Description	Order Code	Price £
220 Brown	6879 AGM-201-102-500	81.15
220 White	6879 AGM-204-102-500	81.15
220 Anthracite	6879 AGM-35-102-500	81.15
IR remote control	6840-101-500	20.31

IR Mobile Remote Control

IR Mobile Remote Control for Busch-Watchdog Alarmtech 220 independent of power supply.

Setting options:

- Light ON/OFF
- AUTO
- Alarm ON/OFF
- Comfort
- Vacation ON/OFF
- Memory brightness level

Description	Order Code	Price £
IR Remote Control	6840	82.71
Mounting Box	6885-500	15.60

Note: For internal PIRs see page 5/84



Domestic Equipment - Wiring Accessories

Alpha bs® - Different by Design



White



Platinum



Ivory



Palladium



Titanium



5



Make colour changes without disconnecting of cables

Lifestyle ...different by design

With Lifestyle wiring accessories you can add elegance to every detail of your home, giving a fresh, innovative touch that will enhance contemporary and period interiors alike.

Designed to the highest safety standards and constructed from the most durable, scratch resistant materials, Lifestyle wiring accessories will stay safe and looking good for a lifetime.



Domestic Equipment - Wiring Accessories

Alpha bs® - Different by Design



Platinum



Palladium



Titanium



White



Ivory

- Choice of 5 unique finishes
- Flexible and innovative design
- Wide rockers for ease of operation

5

Wiring Accessories

13A Socket Outlets

- BS1363: Part 2
- Minimum 25mm deep box required (2 gang)
- Minimum 35mm deep box required (1 gang)
- Double pole switching on switched sockets
- Dual earth terminals (2 gang)

Switchsocket outlets

Unswitched outlets



2 Gang Switched Socket



2 Gang Switched Socket with neon



1 Gang Switched Socket with neon



2 Gang Socket

Platinum		A 2105 PLM £16.24	A 2104 PLM £26.00	A 2101 PLM £14.22	A 2106 PLM £16.63
Palladium		A 2105 PAL £16.24	A 2104 PAL £26.00	A 2101 PAL £14.22	A 2106 PAL £16.63
Titanium		A 2105 TIN £16.24	A 2104 TIN £26.00	A 2101 TIN £14.22	A 2106 TIN £16.63
Ivory		A 2105 IVY £10.35	A 2104 IVY £12.27	A 2101 IVY £8.87	A 2106 IVY £9.87
White		A 2105 WHI £4.50	A 2104 WHI £10.98	A 2101 WHI £2.53	A 2106 WHI £6.55

For modular options - please ask for our wiring accessories catalogue



Domestic Equipment - Wiring Accessories

Alpha bs® - Different by Design

10AX Plateswitches

- BS EN 60669-1
- Minimum 25mm deep box required



1 Gang 2 Way
SP



1 Gang
Intermediate



2 Gang 2 Way
SP

Platinum		A 1002 PLM £7.40	A 1003 PLM £12.57	A 1022 PLM £10.35
Palladium		A 1002 PAL £7.40	A 1003 PAL £12.57	A 1022 PAL £10.35
Titanium		A 1002 TIN £7.40	A 1003 TIN £12.57	A 1022 TIN £10.35
Ivory		A 1002 IVY £5.71	A 1003 IVY £9.19	A 1022 IVY £9.15
White		A 1002 WHI £3.85	A 1003 WHI £8.27	A 1022 WHI £6.95

5

10AX Push Switches

- BS EN 60669-1
- Minimum 25mm deep box required



1 Gang
2 Way SP



1 Gang 2 Way SP
marked "Bell"

Platinum		A 1401 PLM £9.14	A 1402 PLM £9.37
Palladium		A 1401 PAL £9.14	A 1402 PAL £9.37
Titanium		A 1401 TIN £9.14	A 1402 TIN £9.37
Ivory		A 1401 IVY £6.04	A 1402 IVY £6.19
White		A 1401 WHI £5.22	A 1402 WHI £5.38

For modular options - please ask for our wiring accessories catalogue

13A Connection Units

- BS 1363: Part 4
- Minimum 25mm deep box required
- Double Pole with optional front flex outlet for cables up to 11mm Ø.

20A DP Switch

- BS EN 60669-1
- Minimum 35mm deep box required
- Double Pole

13A Connection Units



Connection Unit



Connection Unit with neon

20A DP Switch



20A DP Switch with neon marked "water heater"

Platinum		A 1019 PLM £12.36	A 1020 PLM £17.38	A 1015 PLM £14.70
Palladium		A 1019 PAL £12.36	A 1020 PAL £17.38	A 1015 PAL £14.70
Titanium		A 1019 TIN £12.36	A 1020 TIN £17.38	A 1015 TIN £14.70
Ivory		A 1019 IVY £10.42	A 1020 IVY £13.67	A 1015 IVY £11.27
White		A 1019 WHI £6.63	A 1020 WHI £11.89	A 1015 WHI £9.80

Double Pole Switches

- BS EN 60669-1
- Minimum 35mm deep box required

Shaver Supply Units

- BS 3535: Part 1
- Max. 20VA
- Input: 240V 50Hz
- Output: 110V/240V, 50Hz
- Minimum 47mm deep box required

Blank Plates

- Minimum 16mm deep box

Double Pole Switches



32A DP Switch with neon



45A DP Switch with neon

Shaver Supply Units



Shaver Supply Units 2 gang

Blank Plates



Blanking Plate

Platinum		A 1017 PLM £19.67	A 1018 PLM £21.44	2332 UJBS-20 £40.30	A 1710 PLM £6.04
Palladium		A 1017 PAL £19.67	A 1018 PAL £21.44	2332 UJBS-260 £40.30	A 1710 PAL £6.04
Titanium		A 1017 TIN £19.67	A 1018 TIN £21.44	2332 UJBS-266 £40.30	A 1710 TIN £6.04
Ivory		A 1017 IVY £15.43	A 1018 IVY £18.04	2332 UJBS-22G £50.04	A 1710 IVY £3.22
White		A 1017 WHI £11.30	A 1018 WHI £10.23	2332 UJBS-24G £50.04	A 1710 WHI £1.10

For modular options - please ask for our wiring accessories catalogue

TV Outlets

- BS 3041
- Minimum 16mm deep box required
- For connection to a TV/FM co-axial aerial lead (single)
- For connection to a TV and/or FM co-axial aerial lead (twin)
- Frequency range 5 - 860MHz

Satellite Outlet

- BS 5733, IEC 60169-2

TV Outlets



Single
Non-isolated

Twin
Non-isolated

Twin
Isolated

Single Satellite Socket
F-Type

Platinum		A 1701 PLM £12.30	A 1702 PLM £15.05	A 1706 PLM £23.00	A 1705 PLM £11.84
Palladium		A 1701 PAL £12.30	A 1702 PAL £15.05	A 1706 PAL £23.00	A 1705 PAL £11.84
Titanium		A 1701 TIN £12.30	A 1702 TIN £15.05	A 1706 TIN £23.00	A 1705 TIN £11.84
Ivory		A 1701 IVY £8.69	A 1702 IVY £13.33	A 1706 IVY £21.04	A 1705 IVY £9.17
White		A 1701 WHI £5.20	A 1702 WHI £6.86	A 1706 WHI £18.28	A 1705 WHI £7.96

5

Telephone Outlets

- BS 6312
- Minimum 25mm deep box required

1 Gang
1 Gang



Master

Secondary

Platinum		A 0201 PLM £15.93	A 0202 PLM £14.66
Palladium		A 0201 PAL £15.93	A 0202 PAL £14.66
Titanium		A 0201 TIN £15.93	A 0202 TIN £14.66
Ivory		A 0201 IVY £12.39	A 0202 IVY £8.31
White		A 0201 WHI £7.25	A 0202 WHI £4.97

For modular options - please ask for our wiring accessories catalogue



solid, stylish, new –
The *alpha grid* range

The Alpha Grid Switch

The alpha grid range combines maximum user comfort in the smallest spaces. Switches, fuses or ventilation - the combinations are flexible. The range comprises more than 20 different, easily fittable modules, which can be changed without problem.

Maximum flexibility: switches or buttons, fuses, load displays and much more.



Platinum



Palladium



Titanium



Front Plates

Description	Colour	Order Code	Price £
1 module grid front plate	Platinum	A 8220 PLM	7.68
1 module grid front plate	Palladium	A 8220 PAL	7.68
1 module grid front plate	Titanium	A 8220 TIN	7.68
<hr/>			
2 module grid front plate	Platinum	A 8221 PLM	7.68
2 module grid front plate	Palladium	A 8221 PAL	7.68
2 module grid front plate	Titanium	A 8221 TIN	7.68
<hr/>			
3 module grid front plate	Platinum	A 8222 PLM	12.80
3 module grid front plate	Palladium	A 8222 PAL	12.80
3 module grid front plate	Titanium	A 8222 TIN	12.80
<hr/>			
4 module grid front plate	Platinum	A 8223 PLM	12.80
4 module grid front plate	Palladium	A 8223 PAL	12.80
4 module grid front plate	Titanium	A 8223 TIN	12.80
<hr/>			
6 module grid front plate	Platinum	A 8224 PLM	23.24
6 module grid front plate	Palladium	A 8224 PAL	23.24
6 module grid front plate	Titanium	A 8224 TIN	23.24
<hr/>			
8 module grid front plate	Platinum	A 8225 PLM	23.24
8 module grid front plate	Palladium	A 8225 PAL	23.24
8 module grid front plate	Titanium	A 8225 TIN	23.24
<hr/>			
9 module grid front plate	Platinum	A 8226 PLM	28.64
9 module grid front plate	Palladium	A 8226 PAL	28.64
9 module grid front plate	Titanium	A 8226 TIN	28.64
<hr/>			
12 module grid front plate	Platinum	A 8227 PLM	29.85
12 module grid front plate	Palladium	A 8227 PAL	29.85
12 module grid front plate	Titanium	A 8227 TIN	29.85

Switches

Description	Order Code	Price £
20A Switch Modules - Secret Key		
20A SP 2 way	A 8026 BLK	7.30
20A SP 2 way marked 'Emg Ltg Test'	A 8026 EL BLK	9.31
20A DP 1 way	A 8027 BLK	7.16
20A DP 1 way marked 'Emg Ltg Test'	A 8027 EL BLK	8.83

Indicator Units

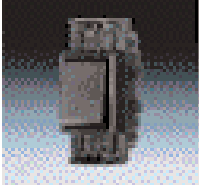
200-250v Red	A 8061 RED	8.08
200-250v Green	A 8063 GRN	8.27

Accessory Modules

13A Fuse Unit	A 8072 BLK	7.90
13A Fuse Unit with retained screw	A 8074 BLK	8.56
Blank insert	A 8060 BLK	1.46
16A Twin Switch	A 8032 BLK	5.53
Relacement Key	A 8099 KEY	0.94

Dimming Modules

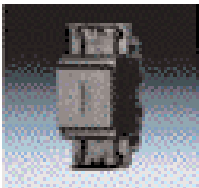
40-250W Dimming Module	A 8064 DIM	38.95
80-400W Dimming Module	A 8065 DIM	43.68
100-630W Twin-Module Dimmer	A 8066 DIM	52.45



20A DP 1 way



Indicator Unit



Key Switch



Indicator Unit

Mounting Boxes & Grids

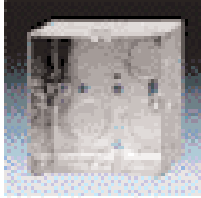
Description	Order Code	Price £
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Flush Mounted Back Boxes

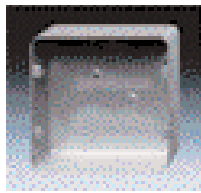
1 & 2 Gang	A 8368 BOX	£1.67
3 & 4 Gang	A 8367 BOX	£1.95
6 & 8 Gang	A 8342 BOX	£6.45
9 & 12 Gang	A 8343 BOX	£8.94

Grids

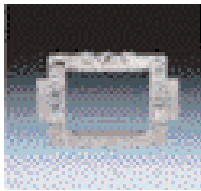
1 & 2 Gang	A 8100 GRD	£1.32
3 & 4 Gang	A 8101 GRD	£1.84



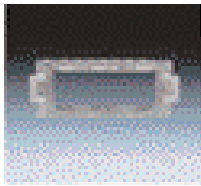
1 & 2 Gang



6 & 8 Gang



1 & 2 Gang



3 & 4 Gang

Modular Dimmer Options



Ordering Example

Step 1:

Choose Your Colour and Finish



Platinum	1721 BS-20	£2.54
Palladium	1721 BS-260	£2.54
Titanium	1721 BS-266	£2.54
Ivory	1721 BS-22G	£1.12
White	1721 BS-24G	£0.92

Step 2:

Order your adaptor plate

APBS	£1.22
------	-------

Step 3:

Choose Your Insert



2250 U	2247 U-500	6517 U-101	6513 U-102-500
£23.82	£27.04	£30.22	£44.32
For incandescent & 230V halogen lamps	For incandescent, 230V halogen & low voltage halogen lamps	For incandescent, 230V halogen & low voltage halogen lamps	For incandescent, 230V halogen & low voltage halogen lamps
No transformer	Compatible with conventional wire-wound transformers	Compatible with conventional wire-wound transformers	Compatible with electronic transformers
Switching capacity 60-600W/VA	Switching capacity 20-500W/VA	Switching capacity 60-400W/VA	Switching capacity 40-420W/VA
N/A	Second output for operation of 1g 2w switch	Ability to operate 2 circuits – 1380W switched	Second output for operation of 1g 2w switch

Step 4:

Choose your coverplate



	Rotary		Touch	
Platinum	6540-20	£13.05	6543-20-102	£17.70
Palladium	6540-260	£13.05	6540-260-102	£17.70
Titanium	6540-266	£13.05	6540-266-102	£17.70
Ivory	6540-22G	£9.09	6540-22G-102	£16.46
White	6540-24	£10.30	6540-24-102	£14.31

Specifications

- BS EN 60669-2-1
- Minimum 35mm deep box required



Step 1:

	1721 BS-20	£2.54
	1721 BS-260	£2.54
	1721 BS-266	£2.54
	1721 BS-22G	£1.12
	1721 BS-24G	£0.92

Step 2:

	APBS	£1.22
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Step 3:

6519 U	6591 U	2112 U-101	6593 U-500	6560 U	6550 U-101-500
£61.86	£69.30	£21.44	£62.15	£47.28	£92.91
For incandescent, 230V halogen & low voltage halogen lamps	For incandescent, 230V halogen & low voltage halogen lamps	For 0/1-10V fluorescent lamps & electronic control gear	For incandescent, 230V halogen & low voltage halogen lamps	For incandescent, 230V halogen & low voltage halogen lamps	For 0/1-10V fluorescent lamps & electronic control gear
Compatible with electronic transformers	Compatible with conventional wire-wound & electronic transformers	Compatible with ECG (electronic ballasts) with 0/1-10V control inlet	Compatible with conventional wire-wound & electronic transformers	Compatible with conventional wire-wound transformers	Compatible with ECG (electronic ballasts) with 0/1-10V control inlet
Switching capacity 40-550W/VA	Switching capacity 40-420W/VA	Switching capacity 700W/VA	Switching capacity 60-420W/VA	Switching capacity 20-500W/VA	Switching capacity 700W/VA
Second output for operation of 1g 2w switch	Second output for operation of 1g 2w switch	N/A	Second output for operation of Push switch	Second output for operation of Push switch	Second output for operation of Push switch

Step 4:

Rotary		Touch	
6540-20	£13.05	6543-20-102	£17.70
6540-260	£13.05	6540-260-102	£17.70
6540-266	£13.05	6540-266-102	£17.70
6540-22G	£9.09	6540-22G-102	£16.46
6540-24	£10.30	6540-24-102	£14.31

For modular internal passive infra-red options – please ask for our wiring accessories catalogue

Busch-Watchdog Internal PIR Devices

Flush 180 UP Comfort - Multilens

Two mounting height alternatives: 1.1m-1.3m or 2.0 - 2.5m, with down to ground detection

- USE INSTEAD OF A LIGHT SWITCH
- Selector switch: OFF-AUTO-ON
- Adjustable dusk sensor: 1-1000 lux
- Adjustable switch-off delay: 2 sec - 30 mins
- Detection angle: 180 degrees
- Detection density: 18 sectors with 72 switching segments
- Temp range: 0 - 35 degrees C



INSERT



Mos Fet Insert	Slave Insert	Standard Relay Insert
6804 U-500	6805 U-500	6812 U-101-500
31.08	29.01	40.28
Lighting		
For incandescent lamps and 230V halogen lamps	Insert for combination with 6804 U-500 and 6401 U-102-500	For incandescent lamps, 230V halogen lamps, fluorescent lamps and low voltage halogen lamps
Compatible with electronic transformers	No load	Compatible with electronic and wire-wound transformers
Switching Capacity: 420W/VA	No Load	Switching Capacity: 700W/VA
2 Wire Connection	3 Wire Connection	3 Wire Connection (no conventional input)
Temp Range: 0 - 35°C	Temp Range: 0 - 35°C	Temp Range: 0 - 55°C
Compatible with IR remote control for presence detector only	Compatible with Mos Fet, Universal Dimmer and Universal Relay Inserts	Compatible with IR remote control for presence detector only

Flush 180 Deg. UP Comfort (Multi Lens)*	6800-0-2029 – £66.90
Adapter Plate	APBS – £1.22
Frame*	1721 BS-xx – See Pg's 5/82 & 5/83

Comfort 180 UP

* Minimum box depth = 35mm

* Available in 5 alpha bs colours - Titanium, Palladium, Platinum, White and Ivory

Ordering Example

Wall Mounting Detection - 180 Degrees

Step 1: Select the insert relevant to your application

Order number e.g. Mos Fet Insert - 6804 U-500

Order number 6599-0-2813 for Adapter Plate

Step 2: Select the type of device for detection & frame

Order number 6800-24G-104-500 for 180 Presence Detector (Select - Comfort Range)

Order number 1721 BS-24G for Frame

Busch Watchdog 180UP

the automatic indoor light switch

Designed to harmonise with the Alpha BS range.

The Busch Watchdog180UP covers a frontal area of 12m and lateral area of 8m. (96 sq metres) and is activated by heat and movement. An over-ride switch allows for conventional light switching if required.

Busch Watchdog presence detector

The ceiling mounted presence detector is suitable for the control of lighting, heating and ventilation systems. The sensitive lens detects even the slightest movement for use within commercial/office type environments.



Universal Relay Insert	Universal Dimmer* Insert	Universal Series* Insert	Universal Push Control* Insert
6401 U-102-500	6590 U-103-500	6402 U-500	6550 U-101-500
44.45	81.87	79.40	96.63
Lighting		Lighting, plus heating & ventilation (presence only)	Lighting
For incandescent lamps, 230V halogen lamps, fluorescent lamps and low voltage halogen lamps	For incandescent lamps, 230V halogen lamps and low voltage halogen lamps	For incandescent lamps, 230V halogen lamps, fluorescent lamps and low voltage halogen lamps	For 0-10V fluorescent lamps
Compatible with electronic and wire-wound transformers		Compatible with EVG (electronic ballasts) with 1-10V control inlet	
Switching Capacity: 2300W/VA (10Ax of Load)	Switching Capacity: min 50W, max 420W - with optional delayed switch off (within 60 seconds)	Switching Capacity: 2300W/VA (10Ax) - for both outputs together	Switching Capacity: 700W/VA
3 Wire Connection	2 Wire Connection	3 Wire Connection	3 Wire Connection
Temp Range: -25 - 55°C	Temp Range: 0 - 55°C		
Compatible with IR remote control for presence detector only			

6813-101-500 – £89.95	On/Off Function Only
Surface Box – 6885-500 – £15.60	

Ordering Example

Ceiling Detection - 360 Degrees

Step 1: Select the insert relevant to your application
Order number e.g. Standard Relay Insert - 6812 U-101-500

Step 2: Select the type of device for detection - e.g. Ceiling Detection
Order number 6813-500 for the 360 Presence Detector
Order number 6885-500 for the Surface Mounting Box

**Contents**

IP55 Sheet Steel Enclosures	6/2 - 6/4
IP65 Terminal Boxes (complete with terminals)	6/6
IP40-IP66 Insulated Enclosures	6/8- 6/41
Trunking	6/42 - 6/47
IP Ratings	6/48

Enclosures

IP55 Sheet Steel Enclosure



Plain Door (mounting plate included)

Height	300			400			
Height mm	300	300	300	400	400	400	400
Width mm	200	300	400	300	300	400	600
Depth mm	150	150	150	150	200	200	200
Part Number	SR3215	SR3315	SR3415	SR4315	SR4320	SR4420	SR4620
Price £	32.46	35.40	40.53	39.88	42.01	45.74	66.48

6





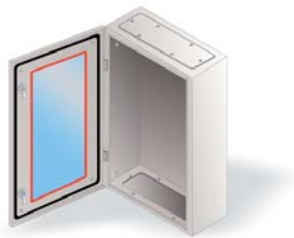
Enclosures

IP55 Sheet Steel Enclosure



500			600			700		800			1000			1200	
500	500	500	600	600	600	700	700	800	800	800	1000	1000	1000	1200	1200
300	400	400	400	400	600	500	500	600	600	800	600	600	800	600	800
200	200	250	200	250	250	200	250	250	300	300	250	300	300	300	300
SR5320	SR5420	SR5425	SR6420	SR6425	SR6625	SR7520	SR7525	SR8625	SR8630	SR8830	SR10625	SR10630	SR10830	SR12630	SR12830
49.24	54.65	57.62	66.48	70.91	85.19	85.19	90.12	116.22	123.60	134.35	149.21	163.98	188.59	194.02	208.29

Glazed Door



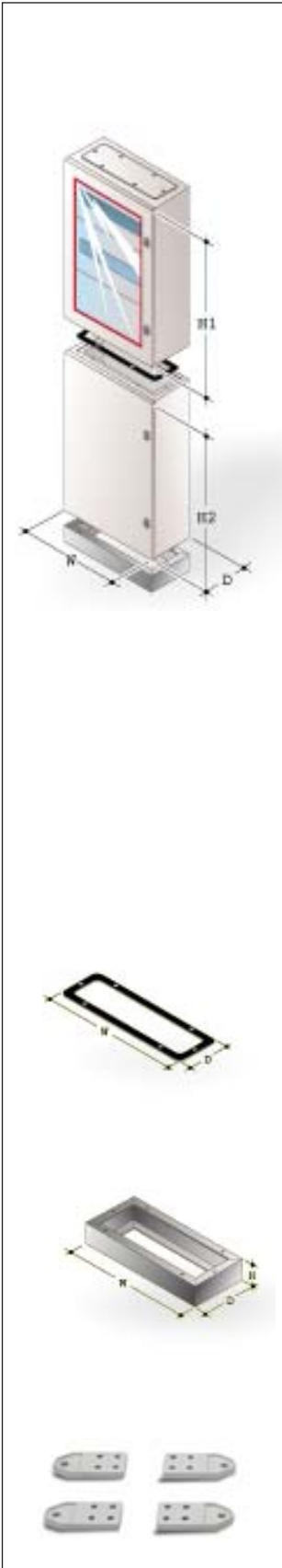
Height	500			600		700		800		1000			1200	
Height mm	500	500	600	600	700	700	800	800	1000	1000	1000	1200	1200	
Width mm	400	400	400	400	500	500	600	600	600	600	800	600	800	
Depth mm	200	250	200	250	200	250	250	300	250	300	300	300	300	
Part Number	SR5420V	SR5425V	SR6420V	SR6425V	SR7520V	SR7525V	SR8625V	SR8630V	SR10625V	SR10630V	SR10830V	SR12630V	SR12830V	
Price £	73.37	76.82	88.14	93.07	108.33	116.71	138.37	156.10	176.79	191.56	211.74	216.67	231.44	

Automation Kit: Plain inner door and mounting plate

Part Number	KA5040	KA5040	KA6040	KA6040	KA7050	KA7050	KA8060	KA8060	KA1060	KA1060	KA1080	KA1260	KA1280
Price £	26.59	26.59	36.89	36.89	45.74	45.74	62.05	62.05	83.22	83.22	107.84	113.26	123.12

Distribution Kit: Mounting profile for module panels

No Vertical Modules (H185mm)	2	2	3	3			4	4	5	5	5	6	6
No DIN Modules per row	14	14	14	14			25	25	25	25	36	25	36
Total DIN Modules	28	28	42	42			100	100	125	125	180	150	216
Part Number	KD5040	KD5040	KD6040	KD6040			KD8060	KD8060	KD1060	KD1060	KD1080	KD1260	KD1280
Price £	11.87	11.87	13.34	13.34			16.26	16.26	17.72	17.72	19.99	19.99	22.16



Modular Stacking

W	D	H1	+	H2	H total
400	200	400		400	800
400	200	400		500	900
400	200	400		600	1000
400	200	500		500	1000
400	200	500		600	1100
400	200	600		600	1200
400	250	500		500	1000
400	250	500		600	1100
400	250	600		600	1200

W	D	H1	+	H2	H total
600	250	600		600	1200
600	250	600		800	1400
600	250	600		1000	1600
600	250	800		800	1600
600	250	800		1000	1800
600	250	1000		1000	2000
600	300	800		800	1600
600	300	800		1000	1800
600	300	800		1200	2000
600	300	1000		1000	2000

IP55 Combining Gasket

W	D	Order Code	Price £
400	200	GZ 4020	5.26
400	250	GZ 4025	5.90
600	250	GZ 6025	7.37
600	300	GZ 6030	8.23

Plinth (100mm H)

W	D	Order Code	Price £
400	200	ZA 4020	34.76
400	250	ZA 4025	35.40
600	250	ZA 6025	43.48
600	300	ZA 6030	46.43

	Order Code	Price £
Wall Mounting bracket	AA 1206	4.59

Modular Stacking

Hinged modular panels for modular equipment

Modular panel + DIN rail with mount support

No vert modules

(H 185)	W	No DIN modules	Part No.	Price £
1	400	14	PM 1414	14.08
1	600	25	PM 1625	14.73
1	800	36	PM 1836	18.51

Hinged modular panels for measuring equipment

No vert modules

(H 185)	W	Part No.	Price £
1	400	PS 2476	16.24
1	600	PS 2676	17.72
1	800	PS 2876	19.20

Hinged modular panels for measuring equipment

No vert modules

(H 185)	W	Part No.	Price £
1	600	PC 1606	13.33
1	800	PC 1806	14.73
2	600	PC 2606	18.51
2	800	PC 2806	20.68

DIN Spacer

W	Part No.	Price £
600	AP 6000	6.75

To place modular circuit breaker and ABB SACE Isomax 1 and S2 series box circuit breakers side by side.

DIN Rail with Mounting Support

W	No DIN Modules	Part No.	Price £
400	14	GD 4006	5.90
600	25	GD 6006	6.75
800	36	GD 8006	7.37

Spare Mounting Plates

Height	Width	Part No.	Price £
300	200	PF 3020	11.87
300	300	PF 3030	11.87
300	400	PF 3040	11.87
400	300	PF 4030	12.60
400	400	PF 4040	12.60
400	600	PF 4060	12.60
500	300	PF 5030	12.60
500	400	PF 5040	13.33
600	400	PF 6040	17.72
600	600	PF 6060	22.94
700	500	PF 7050	25.12
800	600	PF 8060	32.45
800	800	PF 8080	37.56
1000	600	PF 1060	40.53
1000	800	PF 1080	51.70
1200	600	PF 1260	58.97
1200	800	PF 1280	56.80



5-JBOX2.5

Junction Box IP65 junction box with flexible knockouts

Number of Terminals	Amps (lth)	Order Code	Price £
5	24	5-JBOX2.5 (Pack of 3)	11.24



10TERM 2.5

Terminal Box 2.5mm IP55 plastic enclosure

Number of Terminals	Amps (lth)	Order Code	Price £
5	24	5TERM 2.5	14.49
10	24	10TERM 2.5	18.35

Terminal Box 4mm IP55 plastic enclosure

Number of Terminals	Amps (lth)	Order Code	Price £
5	32	5TERM 4	15.36
10	32	10TERM 4	20.06



XUK001032












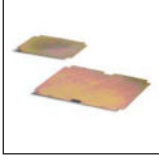







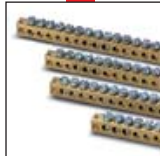
Terminal Packs for Installers

Description	Order Code	Price £
This pack contains a selection of commonly used terminal blocks in a handy moulded plastic toolbox.	XUK001032	114.39

DIN Rail Mounting Terminal Blocks

We have available from stock, an extensive range of DIN rail terminal blocks, which include screw clamp, IDC and spring connection technologies.

We stock an extensive range of Entrelec Terminals contact sales desk for details.

IP40 Modular Units Pages 6/25-27	IP40/55 Panel Fronts Pages 6/40-41	IP44/55 Thermoplastic Enclosures Pages 6/10-12	IP65 Polycarbonate Enclosures Pages 6/13-14	IP55 Modular Unit Pages 6/28-30
				
 Terminals	 Lock with Key	 Wall Mounting Brackets	 Aluminium Mounting Plate	 Neutral Terminals
 Terminal Holders		 Metal Base Plates	 Insulating Mounting Plate	 Wall Mounting Brackets
 Wall Mounting Brackets			 Wall Mounting Brackets	 Lock with Key
 Screw Lead Sealing Accessory			 Terminals	
			 Terminal Holders	

IP65 Switchboard Pages 6/15-17	IP65 Modular Unit Single Door Pages 6/31-34	IP65 Modular Unit Multiple Door Pages 6/35-37	IP65 Commercial Industrial Units Pages 6/38-39	IP66 Gemini Range Pages 6/19-24
Metal Mounting Plate	Terminals	Terminals	Terminals	Mounting Plates
Insulating Mounting Plate	Terminal Holders	Terminal Holders	Terminal Holders	Full Height Inner Door
Modular Mounting Kit	Wall Mounting Brackets	Wall Mounting Brackets	Wall Mounting Brackets	Enclosure Uprights
Terminals	Screw Lead Sealing Accessory	Screw Lead Sealing Accessory	Lock with Key	Plain Rear Plates
Terminal Holders	Lock with Key	Lock with Key		MCB Kits
				Plain Inner Door
				T-Max Mounting Kit

Technical Characteristics

Degree of protection:

- IP44 for press-on lid boxes
- IP55 for screw-on lid boxes
- Class of protection: II
- Colour: grey RAL 7035
- Junction boxes made in compliance with CEI 23-48 and IEC 670 standards

Construction:

- Break-proof, shock resistance up to 6 joules (IK10)
- Dimensional stability -25°C up to +75°C
- Boxes with screw-on lids in thermoplastic material, self-extinguishing in compliance with UL 94 V-O. Standard and resistant to abnormal heat and fire up to 960°C (glow wire test) in compliance with IEC695-2-1 Standard
- Boxes with screw-on lids in transparent polycarbonate material, self-extinguishing in compliance with UL 94 V-2 Standard and resistant to abnormal heat and fire up to 960°C (glow wire test) in compliance with IEC 695-2-1 Standard





IP44 Box (with glands & press-on lid)

Size	Order Code	Price £
ø60 - H35	00 800	0.64
ø80 - H40	00 802	0.79

IP44 Box (with glands & press-on lid)

Size	Order Code	Price £
65 x 65 x 32	00 808	0.86
80 x 80 x 40	00 810	0.98

IP44 Box (with glands & screw-on lid)

Size	Order Code	Price £
100 x 100 x 50	00 816	1.82
105 x 70 x 50	00 820	1.65
100 x 100 x 80	00 821	1.84

IP44 Box (with glands & low screw-on lid)

Size	Order Code	Price £
153 x 110 x 66	00 822	3.12
160 x 135 x 77	00 824*	5.56
220 x 170 x 80	00 826*	7.22
310 x 240 x 110	00 828*	13.20

* Can be wall-mounted using wall brackets

IP44 Box (with glands & high screw-on lid)

Size	Order Code	Price £
160 x 135 x 150	00 830	6.46
220 x 170 x 150	00 832	10.15
310 x 240 x 160	00 834	17.44



IP55 Box (with smooth walls & low screw-on lid)

Size	Order Code	Price £
100 x 100 x 50	00 846	1.72
105 x 70 x 50	00 850	1.77
100 x 100 x 80	00 851	2.00
153 x 110 x 66	00 852	2.70
160 x 135 x 77	00 854*	4.38
220 x 170 x 80	00 856*	6.77
310 x 240 x 110	00 858*	11.75

* Can be wall-mounted using wall brackets

IP55 Box (with smooth walls & high screw-on lid)

Size	Order Code	Price £
160 x 135 x 150	00 860	5.29
220 x 170 x 150	00 862	8.79
310 x 240 x 160	00 864	14.51

IP55 Box (with smooth walls & transparent low screw-on lid)

Size	Order Code	Price £
153 x 110 x 66	00 872	4.59
160 x 135 x 77	00 874*	5.64
220 x 170 x 80	00 876*	9.55
310 x 240 x 110	00 878*	16.80

* Can be wall-mounted using wall brackets

IP55 Box (with smooth walls & high transparent screw-on lid)

Size	Order Code	Price £
160 x 135 x 150	00 880	7.69
220 x 170 x 150	00 882	12.54
310 x 240 x 160	00 884	19.65

Technical Characteristics

Degree of protection: IP65

- Insulation class II
- Available in RAL 7035
- Junction boxes made in compliance with CEI 23-48 and IEC 670 standards

Construction:

- Break-proof, shock resistance up to 20 joules (IK 10 level)
- Dimensional stability -25 to $+115^{\circ}\text{C}$
- High resistance to UV rays
- Boxes with screw-on lids in transparent polycarbonate material, self-extinguishing in compliance with UL 94 V-2 Standard and resistant to abnormal heat and fire up to 960°C (glow wire test) in compliance with IEC 695-2-1 Standard
- Possibility of installation in environments with major risk in the event of fire (CEI 64-8 part 7 section 751 Standard) and in AD-FT environments (CEI 64-2 Standard, IV edition)
- Junction boxes produced in compliance with CEI 23-48 and IEC 670 Standards





IP65 Polycarbonate Enclosure

Size HxWxD	Order Code	Price £
220 x 140 x 140	12804	11.41
220 x 205 x 140	12808	13.06
220 x 275 x 140	12812	15.30
370 x 275 x 140	12814	21.63
570 x 275 x 140	12816	31.75
570 x 380 x 140	12818	38.32

Aluminium Mounting Plate

For Box Type	Order Code	Price £
12804	12842	2.27
12808	12844	3.04
12812	12845	4.21
12814	12846	6.14
12816	12847	7.48
12818	12848	11.13

Insulated Mounting Plate

For Box Type	Order Code	Price £
12804	12832•	4.46
12808	12834•	4.80
12812	12835•	5.46
12814	12836•	6.95
12816	12837•	9.27
12818	12838•	11.26

•Non Stock Item

Wall Mounting Brackets

For Box Type	Order Code	Price £
Fits All	12858	4.59

Recommended Terminals & Terminal Holders Quantities

For Switchboard type	Terminal Holders		Terminals	
	Order Code	Price £	Order Code	Price £
12804	12538 x 2	3.06	12531 x 2	1.19
12808	12539 x 2	3.42	12531 x 2	1.19
12712	12540 x 1	3.98	12531 x 1	1.19
			12532 x 1	1.84
12814	12540 x 2	3.98	12533 x 2	2.44
12816	12540 x 2	3.98	12534 x 2	2.72
12818	12543 x 2	7.65	12535 x 2	2.91

Technical Characteristics

Degree of protection: IP65

- Class of protection: II
- Standards: CEI 23-48, CEI 23-49 and IEC670 standards
- Designed for the insertion of an extractable frame with pre-drilled panelling for mounting T-Max MCCBs 100, 125 and 160 A circuit breakers
- Colour: grey RAL 7035

Door Versions:

- Plain door 140° opening
- Transparent smokey door 140° opening

Construction:

- Thermoplastic polycarbonate, GWT 960°C
- Break-proof, shock resistance up to 20 joules (IK10)
- Dimensional stability -20°C up to +115°C
- High resistance to UV rays

Mounting possibilities:

- Wall mounting

Switchboards supplied complete with:

- 4 screw-cover caps to guarantee
- accessories for hinging the front part
- 1 certification plate
- instruction sheet



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Plain Door Enclosure

Size WxHxD	Order Code	Price £
140 x 220 x 140	12764	13.44
205 x 220 x 140	12768	17.89
275 x 220 x 140	12772	19.59
275 x 370 x 140	12774	26.23
275 x 570 x 140	12776	40.32
380 x 570 x 140	12778	47.59

Clear Door Enclosure

Size WxHxD	Order Code	Price £
140 x 220 x 140	12784	13.44
205 x 220 x 140	12788	17.89
275 x 220 x 140	12792	19.59
275 x 370 x 140	12794	26.23
275 x 570 x 140	12796	40.32
380 x 570 x 140	12798	47.59

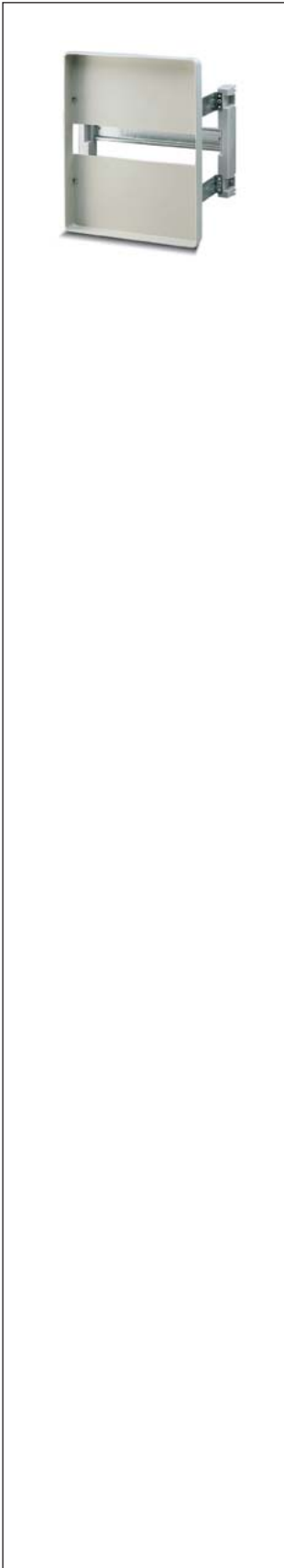
Metal Mounting Plate

For switchboard type	Order Code	Price £
12764 - 12784	12842	2.27
12768 - 12788	12844	3.04
12772 - 12792	12845	4.21
12774 - 12794	12846	6.14
12776 - 12796	12847	7.48
12778 - 12798	12848	11.13

Insulating Mounting Plate

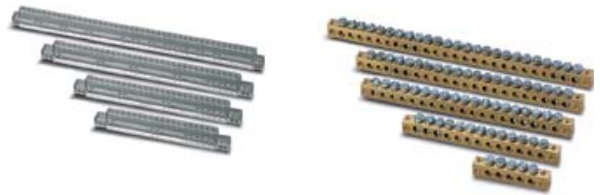
For switchboard type	Order Code	Price £
12764 - 12784	12832•	4.46
12768 - 12788	12834•	4.80
12772 - 12792	12835•	5.46
12774 - 12794	12836•	6.95
12776 - 12796	12837•	9.27
12778 - 12798	12838•	11.26

•Non Stock Item



Modular Mounting Kit

For switchboard type	No. of Modules	Order Code	Price £
12774 - 12794	12 x 1 row	12820	24.73
12776 - 12796	24 x 2 rows	12821	31.24
12778 - 12798	36 x 2 rows	12822	36.45



Recommended Terminals & Terminal Holders Quantities

For Switchboard type	Terminal Holders		Terminals	
	Order Code	Price £	Order Code	Price £
12764 - 12784	2 x 12538	3.06	2 x 12531	1.19
12768 - 12788	2 x 12539	3.42	2 x 12531	1.19
12772 - 12792	1 x 12540	3.98	1 x 12531	1.19
			1 x 12532	1.84
12774 - 12794	2 x 12540	3.98	2 x 12533	2.44
12776 - 12796	2 x 12540	3.98	2 x 12534	2.72
12778 - 12798	2 x 12543	7.65	2 x 12535	2.91

The following products are suitable for mounting in the modules

- MCCBs see pages 2/30
- MCBs see pages 2/12 - 2/14
- RCCBs see pages 2/21
- RCBO see pages 2/15
- Modular Devices see pages 2/20 - 2/23
- Heating & Lighting Contactors see pages 2/23

Enclosures

IP66 Gemini Weather Proof Range

Surface mounted boards for Distribution and Automation

Applications

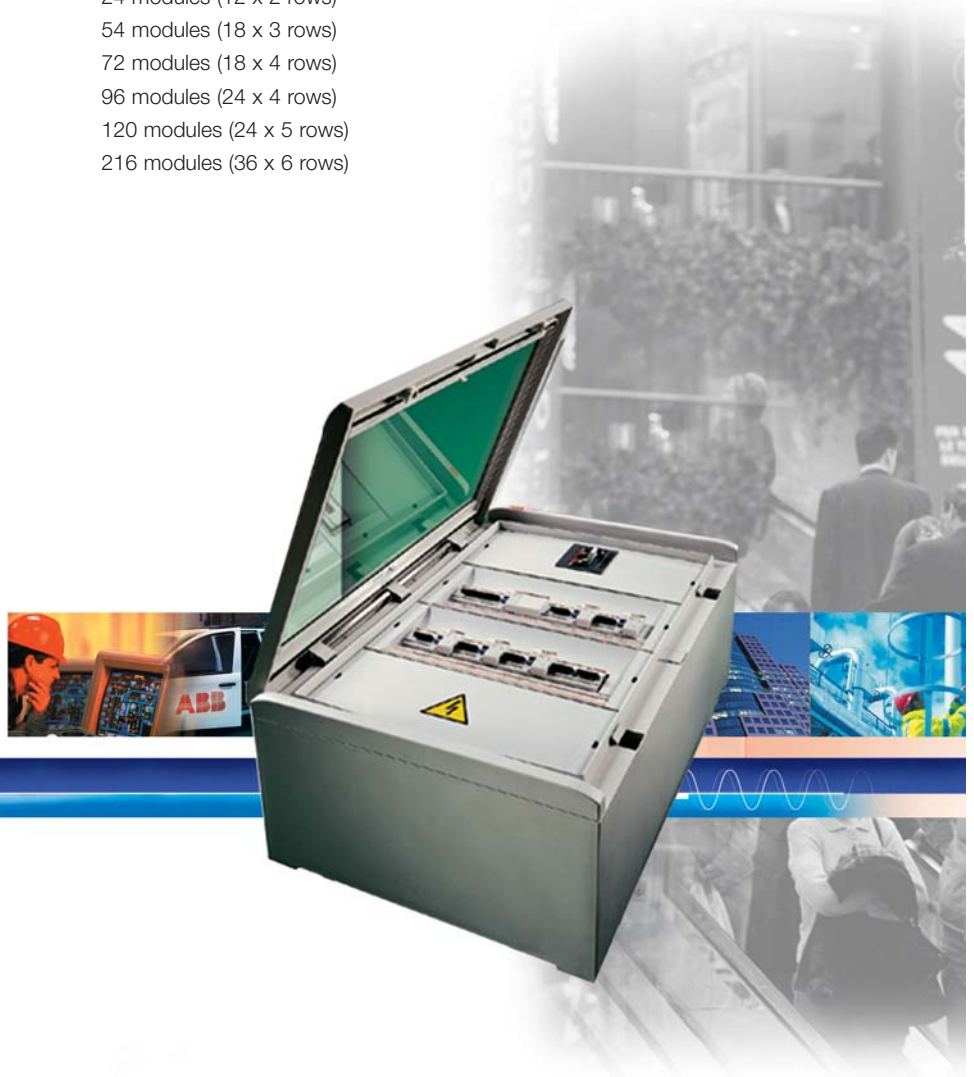
Resistant to chemical agents (water, salt solutions, acids, mineral basis and oils) atmospheric agents and UV rays.

Technical Characteristics

- Operating temperature: from -25°C to $+100^{\circ}\text{C}$.
- Thermoplastic material (co injection process).
- 100% recyclable material.
- Two versions: opaque grey door or transparent smoky door.
- Reversible door, vertically hinged.
- Door opening more than 180° .
- Color: gray RAL 7035.
- Designed to be fitted with a safety key lock with handle.

DIN modules for distribution applications:

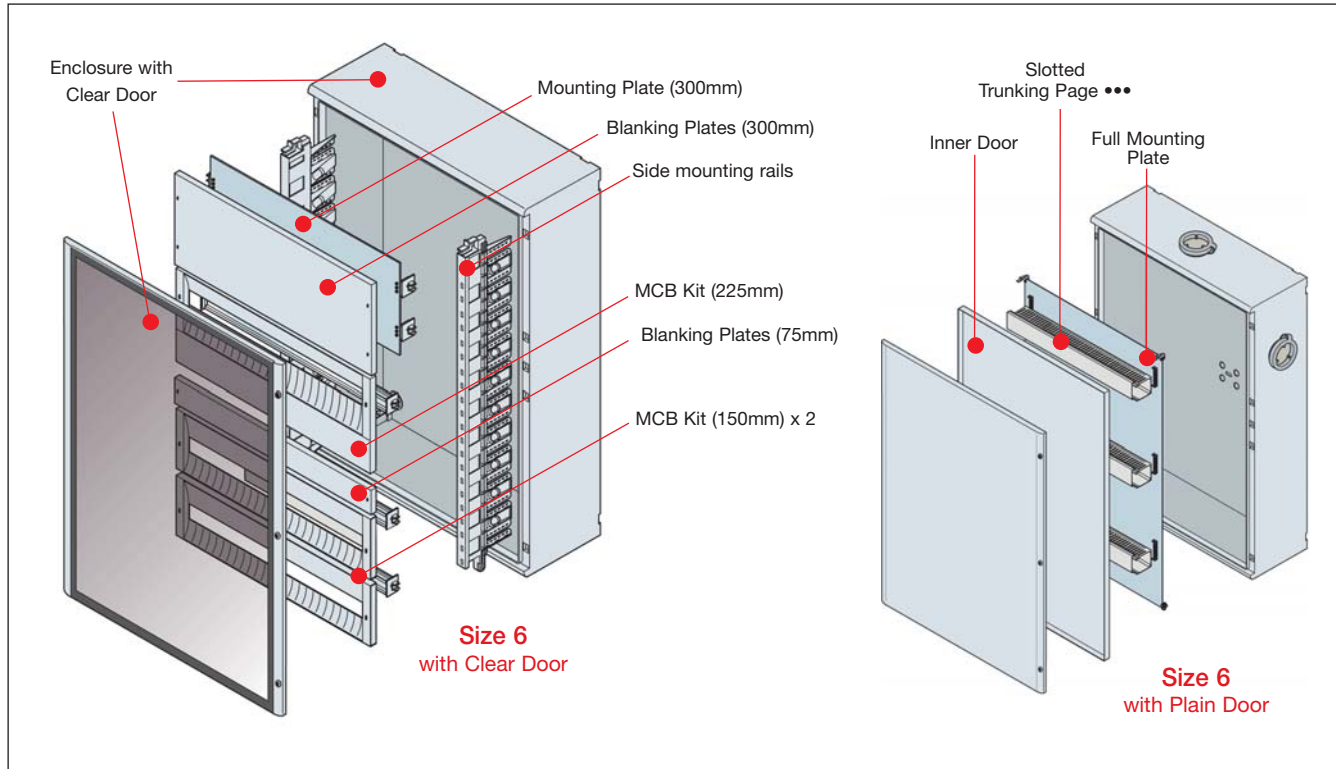
- 24 modules (12 x 2 rows)
- 54 modules (18 x 3 rows)
- 72 modules (18 x 4 rows)
- 96 modules (24 x 4 rows)
- 120 modules (24 x 5 rows)
- 216 modules (36 x 6 rows)



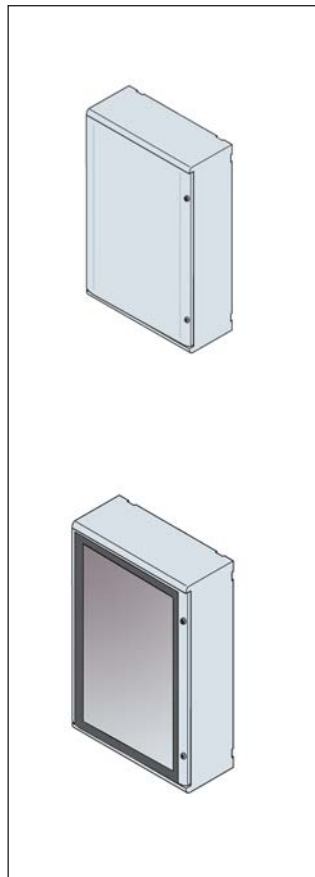
Enclosures

IP66 Gemini Weather Proof Range

Surface mounted boards for Distribution and Automation



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Gemini Enclosures

Components are suitable for any type and size of enclosure

Enclosure with Plain Door

Size HxWxD	Usable Height	Size	Order Code	Price £
400 x 335 x 210	300	1	1SL0201A00	67.38
550 x 460 x 260	450	2	1SL0202A00	102.82
700 x 460 x 260	600	3	1SL0203A00	130.52
700 x 590 x 260	600	4	1SL0204A00	155.19
855 x 590 x 360	750	5	1SL0205A00	233.31
1005 x 840 x 360	900	6	1SL0206A00	452.57

Enclosure with Clear Door

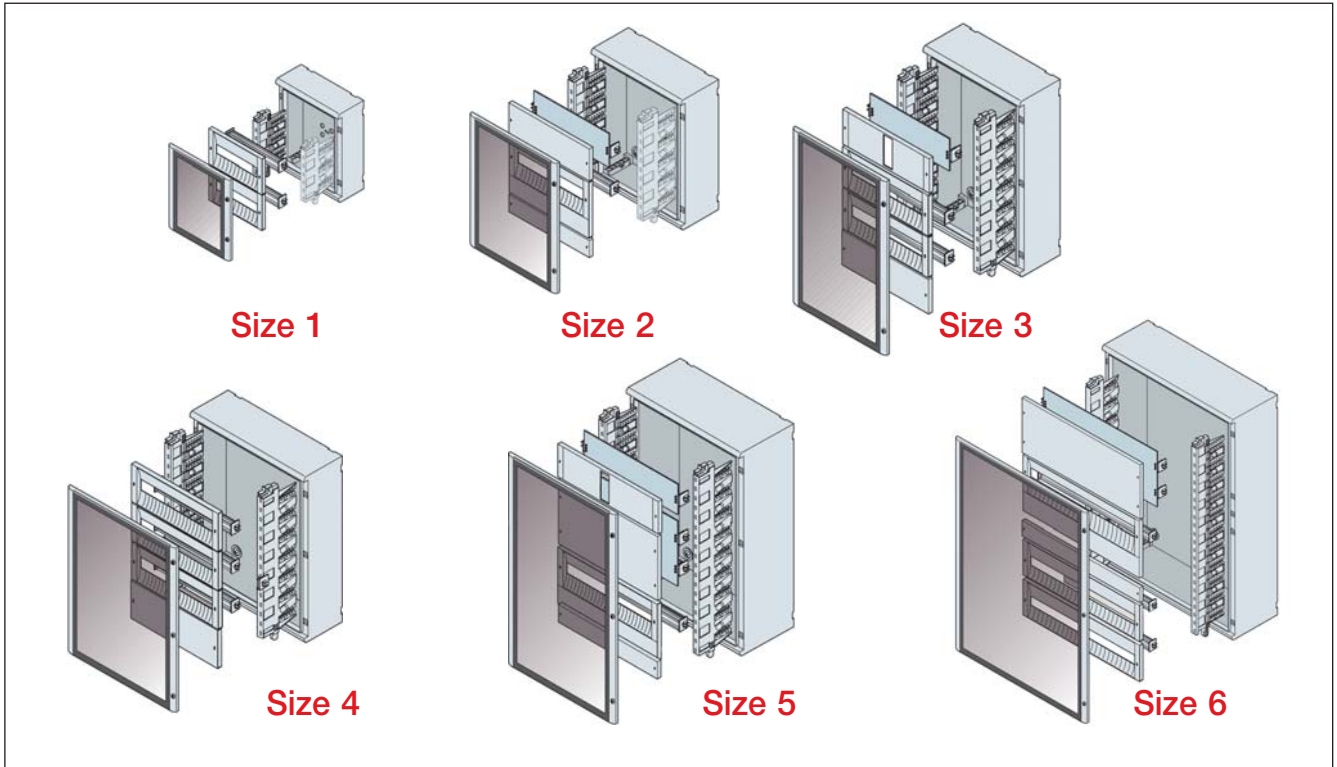
Size HxWxD	Usable Height	Size	Order Code	Price £
400 x 335 x 210	300	1	1SL0211A00	82.19
550 x 460 x 260	450	2	1SL0212A00	119.42
700 x 460 x 260	600	3	1SL0213A00	142.72
700 x 590 x 260	600	4	1SL0214A00	187.21
855 x 590 x 360	750	5	1SL0215A00	249.88
1005 x 840 x 360	900	6	1SL0216A00	480.62



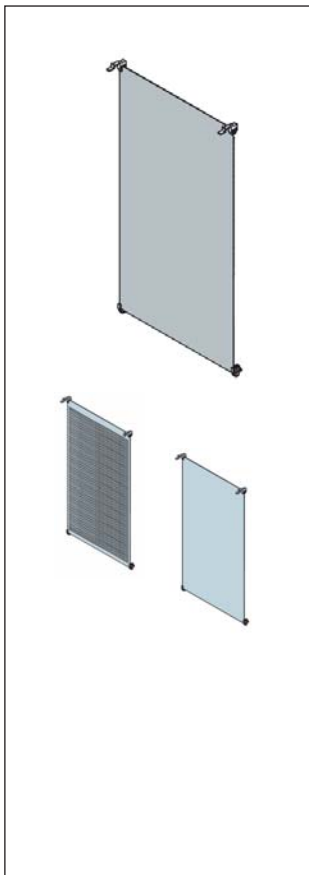
Enclosures

IP66 Gemini Weather Proof Range

Surface mounted boards for Distribution and Automation



6



Full Mounting Plates

Size HxW	Size	Order Code	Price £
285 x 235	1	1SL0259A00	7.11
435 x 360	2	1SL0260A00	11.03
585 x 360	3	1SL0261A00	15.00
585 x 485	4	1SL0262A00	19.65
735 x 485	5	1SL0263A00	28.42
885 x 735	6	1SL0264A00	54.84

Also available:

- Perforated Mounting Plates suitable for use with floating nuts.
- Insulated Mounting Plates.

Please consult us for availability

The following products are suitable for mounting in the modules

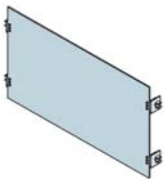
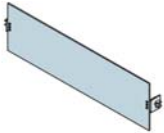
- MCCBs see pages 2/30
- MCBs see pages 2/12 - 2/14
- RCCBs see pages 2/21
- RCBO see pages 2/15
- Modular Devices see pages 2/20 - 2/23
- Heating & Lighting Contactors see pages 2/23



Enclosures

IP66 Gemini Weather Proof Range

Surface mounted boards for Distribution and Automation



Inner Door

Size HxW	Size	Order Code	Price £
450 x 375	2	1SL0252A00	21.66
600 x 375	3	1SL0253A00	25.69
600 x 500	4	1SL0254A00	31.38
750 x 500	5	1SL0255A00	41.92
900 x 750	6	1SL0256A00	93.44

Side Mounting Rails

Size H	Size	Order Code	Price £
300	1	1SL0283A00	8.53
450	2	1SL0284A00	9.12
600	3	1SL0285A00	11.49
600	4	1SL0285A00	11.49
750	5	1SL0286A00	13.85
900	6	1SL0287A00	21.66

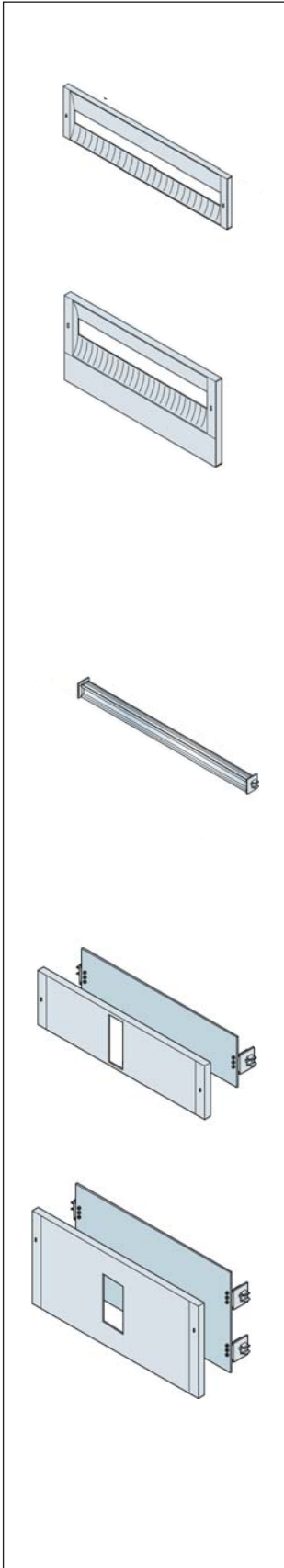
Mounting Plates

Size HxW	Nominal Size	Size	Order Code	Price £
130 x 210	150	1	1SL0296A00	5.46
130 x 318	150	2	1SL0297A00	7.11
130 x 318	150	3	1SL0297A00	7.11
130 x 443	150	4	1SL0298A00	9.41
130 x 443	150	5	1SL0298A00	9.41
130 x 663	150	6	1SL0299A00	17.17
280 x 318	300	2	1SL0302A00	14.32
280 x 318	300	3	1SL0302A00	14.32
280 x 443	300	4	1SL0303A00	17.78
280 x 443	300	5	1SL0303A00	17.78
280 x 663	300	6	1SL0304A00	31.38

Enclosures

IP66 Gemini Weather Proof Range

Surface mounted boards for Distribution and Automation



MCB Kits

Size HxW	Size	Modules	Order Code	Price
150 x 250	1	12	1SL0307A00	9.77
150 x 375	2	18	1SL0308A00	10.89
150 x 375	3	18	1SL0308A00	10.89
150 x 500	4	24	1SL0309A00	13.54
150 x 500	5	24	1SL0309A00	13.54
150 x 750	6	36	1SL0310A00	17.89
225 x 375	2	18	1SL0313A00	14.72
225 x 375	3	18	1SL0313A00	14.72
225 x 500	4	24	1SL0314A00	18.28
225 x 500	5	24	1SL0314A00	18.28
225 x 750	6	36	1SL0315A00	24.15

- MCBs see pages 2/12 - 2/14
- RCCBs see pages 2/21
- RCBO see pages 2/15
- Modular Devices see pages 2/20 - 2/23

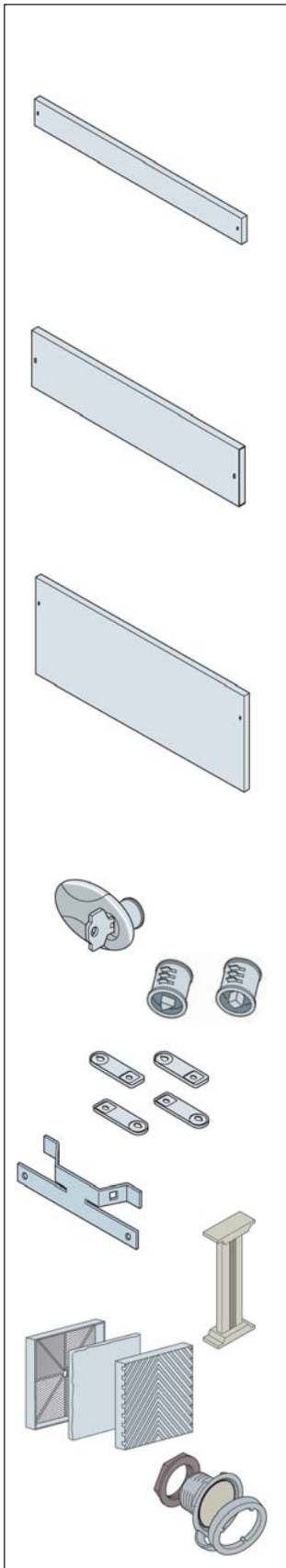
Top Hat DIN-Rail

Size W	Size	Modules	Order Code	Price
210	1	12	1SL0290A00	3.79
318	2	18	1SL0291A00	4.08
318	3	18	1SL0291A00	4.08
443	4	24	1SL0292A00	4.92
443	5	24	1SL0292A00	4.92
663	6	36	1SL0293A00	7.29

T-Max MCCB Mounting Kits

Size H x W	Size	Order Code	Price
150 x 370	2	1SL0336A00	17.43
150 x 370	3	1SL0336A00	17.43
150 x 500	4	1SL0337A00	21.66
150 x 500	5	1SL0337A00	21.66
150 x 750	6	1SL0338A00	28.60
300 x 370	2	1SL0370A00	26.15
300 x 370	3	1SL0370A00	26.15
300 x 500	4	1SL0371A00	32.49
300 x 500	5	1SL0371A00	32.49
300 x 750	6	1SL0372A00	42.92

- • MCCBs see pages 2/30



Blanking Plates

Size HxW	Size	Order Code	Price £
75 x 250	1	1SL0318A00	4.84
75 x 375	2	1SL0319A00	5.51
75 x 375	3	1SL0319A00	5.51
75 x 500	4	1SL0320A00	6.47
75 x 500	5	1SL0320A00	6.47
75 x 500	6	1SL0321A00	7.25
150 x 250	1	1SL0324A00	8.06
150 x 375	2	1SL0325A00	9.18
150 x 375	3	1SL0325A00	9.18
150 x 500	4	1SL0326A00	10.78
150 x 500	5	1SL0326A00	10.78
150 x 750	6	1SL0327A00	12.07
300 x 250	1	1SL0330A00	13.62
300 x 375	2	1SL0331A00	14.80
300 x 375	3	1SL0331A00	14.80
300 x 500	4	1SL0332A00	21.58
300 x 500	5	1SL0332A00	21.58
300 x 750	6	1SL0333A00	26.64

Accessories

Description	Size	W x H x D	Order Code	Price £
Key lock and handle	Fits All		1SL0340A00	8.24
Triangular lock	Fits All		1SL0341A00	1.14
Square lock	Fits All		1SL0339A00	1.14
Wall mounting brackets (4off)	Fits All		1SL0342A00	4.86
Fixing Post Kit	1		1SL0343A00•	19.51
Fixing Post Kit	2 & 3		1SL0344A00•	21.22
Fixing Post Kit	4 & 5		1SL0345A00•	26.67
Fixing Post Kit	6		1SL0346A00•	34.14
Enclosure pillar	1, 2, 3 & 4	305 x 800 x 165	1SL0352A00•	201.98
Ventilation Kits	Fits All		1SL0350A00•	32.09
Anti Condensation Kit	Fits All	25mm Hole	1SL0351A00•	49.35

Non Stock Item •

Technical Characteristics

Degree of protection: IP40

- Class of protection: II
- Standards: IEC 695-2-1, CEI 23-48, CEI 23-49 and IEC 670
- Dimensions: 2 up to 54 DIN modules
- Colour: grey RAL 7035
- High resistance to UV rays

Construction:

- Thermoplastic polycarbonate, GWT 960°C
- Break-proof, shock resistance up to 20 joules (IK10)
- Dimensional stability -25°C up to 115°C

Mounting possibilities:

- Wall mounting
- Units with 8 and more modules fitted with flanges to facilitate the input of conduits and cables
- Possibility of installing devices with depth of 53, 68 and 75 mm

Consumer units supplied complete with:

- 4 module covers per row
- 1 self-adhesive label per row
- 1 plate for CEI 23-51 certification
- 4 screw-cover caps for guarantee
- instruction sheet





2/4 Module IP40 Modular Unit

Size WxHxD	Order Code	Price £
100 x 160 x 85	12 702	2.72

4 Module IP40 Modular Unit

Size WxHxD	Order Code	Price £
140 x 220 x 110	12 704	5.36

8 Module IP40 Modular Unit

Size WxHxD	Order Code	Price £
205 x 220 x 110	12 708	8.73

12 Module IP40 Modular Unit

Size WxHxD	Order Code	Price £
275 x 220 x 110	12 712	9.64

24 Module IP40 Modular Unit

Size WxHxD	Order Code	Price £
275 x 370 x 110	12 714	22.07

36 Module IP40 Modular Unit

Size WxHxD	Order Code	Price £
275 x 570 x 110	12 716	32.86

54 Module IP40 Modular Unit

Size WxHxD	Order Code	Price £
380 x 570 x 120	12 718	38.69

The following products are suitable for mounting in the modules

- MCBs see pages 2/12 - 2/14
- RCCBs see pages 2/21
- RCBO see pages 2/15
- Modular Devices see pages 2/20 - 2/23



Recommended Terminals & Terminal Holders Quantities

For Switchboard type	Terminal Holders		Terminals	
	Order Code	Price £	Order Code	Price £
12704	12538 x 2	3.06	12531 x 2	1.19
12708	12539 x 2	3.42	12531 x 2	1.19
12712	12540 x 1	3.98	12531 x 1	1.19
			12532 x 1	1.84
12714	12540 x 2	3.98	12533 x 2	2.44
12716	12540 x 2	3.98	12534 x 2	2.72
12718	12543 x 2	7.65	12535 x 2	2.91

Wall Mounting Brackets

For Box	Order Code	Price £
Fits All	12 858	4.59

Screw Lead Sealing Accessory

For Box	Order Code	Price £
Fits All	12 860	3.76

Technical Characteristics

Degree of protection: IP55

- Class of protection: II
- Standards: CEI 23-48, CEI 23-49 and IEC Standards
- Dimensions: 2 up to 20 DIN modules
- Colour: grey RAL 7035
- High resistance to UV rays

Construction:

- Thermoplastic , GWT 650°C
- Break-proof, shock resistance up to 6 joules (IK10)
- Dimensional stability -20° to +85°C
- Resistant to chemical agents (water, saline solutions, acids. Mineral bases and oils), to atmospheric agents and UV rays

Doors:

- Transparent door horizontally hinged in the version with sealable spring closure and key lock

Mounting possibilities:

- Wall mounting

Units supplied complete with:

- 4 module covers per row
- 1 self-adhesive label per row
- 1 plate for CEI 23-51 certification
- 3 x 25mm cable glands



4 Module IP55 Modular Unit

Size WxHxD	Order Code	Price £
125 x 180 x 105	12 644	7.72

6 Module IP55 Modular Unit

Size WxHxD	Order Code	Price £
160 x 180 x 105	12 646	10.67

10 Module IP55 Modular Unit

Size WxHxD	Order Code	Price £
230 x 180 x 105	12 650	16.56

20 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
250 x 320 x 135	12 652	28.42

10 Module IP55 Special

Size WxHxD	Order Code	Price £
250 x 320 x 135	12 654	24.30

The following products are suitable for mounting in the modules

- MCBs see pages 2/12 - 2/14
- RCCBs see pages 2/21
- RCBO see pages 2/15
- Modular Devices see pages 2/20 - 2/23



Terminal Blocks

For Box Type	Neutral terminals	Earth terminals	Order Code	Price £
12 644 – 12 684	2x4.5 + 3x5.6	2x4.5 + 3x5.6	12 880	5.04
12 646 – 12 686	6x4.5 + 5x5.6	2x4.5 + 3x5.6	12 882	5.38
12 650 – 12 690	6x4.5 + 5x5.6	2x4.5 + 3x5.6	12 884	9.32
12 652 – 12 692 – 12 654	2 (6x4.5 + 5x5.6)	2 (2x4.5 + 3x5.6)	12 886	9.32



Wall Mounting Brackets

For Box Type	Order Code	Price £
For modular units 10+	12 858	4.59



Lock with Key

For Box Type	Order Code	Price £
Fts All	12 865	4.71

Technical Characteristics

Degree of protection: IP65

- Class of protection: II
- Standards: IES 60670, IMQ mark in compliance with CEI 23-48 and CEI 23-49
- Dimensions: 4 up to 54 DIN modules
- Colour: grey RAL 7035

Door Versions:

- Plain door (IP65)
- Transparent smokey door (IP65)

Construction:

- Thermoplastic polycarbonate, GWT 960°C
- Break-proof, shock resistance up to 20 joules (IK10)
- Dimensional stability -20°C up to 115°C

Mounting possibilities:

- Wall mounting
- Cable entries with flanges for easy cable or conduit insertion (no need of glands)

Consumer units supplied complete with:

- 4 module covers per row
- 1 self-adhesive label per row
- 4 screw-cover caps to guarantee
- accessories for attaching the hinges to the front
- 1 plate for CEI 23-51 certification
- instruction sheet





4 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
140 x 220 x 140	12 724	11.47

8 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
205 x 220 x 140	12 728	13.01

12 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
275 x 220 x 140	12 732	16.56

18 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
380 x 220 x 140	12 733	18.92

24 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
275 x 370 x 140	12 734	28.43

36 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
275 x 570 x 140	12 736	42.23

54 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
380 x 570 x 140	12 738	48.73



4 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
140 x 220 x 140	12 744	9.60

8 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
205 x 220 x 140	12 748	12.40

12 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
275 x 220 x 140	12 752	16.56

18 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
380 x 220 x 140	12 753	18.92

24 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
275 x 370 x 140	12 754	28.42

36 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
275 x 570 x 140	12 756	42.23

54 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
380 x 570 x 140	12 758	48.71



Recommended Terminals & Terminal Holders Quantities

For Switchboard type	Terminal Holders		Terminals	
	Order Code	Price	Order Code	Price
12724 - 12744	12538 x 2	3.06	12531 x 2	1.19
12728 - 12748	12539 x 2	3.42	12531 x 2	1.19
12732 - 12752	12540 x 1	3.98	12531 x 1	1.19
			12532 x 1	1.84
12733 - 12753	12543 x 1	7.65	12531 x 1	1.19
			12535 x 1	2.91
12734 - 12754	12450 x 2	3.51	12533 x 2	2.44
12735 - 12755	12543 x 2	7.65	12534 x 2	2.72
12736 - 12756	12540 x 2	3.98	12534 x 2	2.72
12738 - 12758	12543 x 2	7.65	12535 x 2	2.91

Wall Mounting Brackets

For Box Type	Order Code	Price
Fits All	12 858	4.59

Screw Lead Sealing Accessory

For Box Type	Order Code	Price
Fits All	12 860	3.76

Lock with Key

For Box Type	Order Code	Price
Fits All	12 866	4.71

The following products are suitable for mounting in the modules

- MCCBs see pages 2/30
- MCBs see pages 2/12 - 2/14
- RCCBs see pages 2/21
- RCBO see pages 2/15
- Modular Devices see pages 2/20 - 2/23
- Heating & Lighting Contactors see pages 2/23

Technical Characteristics

Degree of protection: IP65

- Class of protection: II
- Standards: IEC 60670, IMQ mark in compliance with CEI 23-48 and CEI 23-49
- Dimensions: 2 up to 36 DIN modules
- Colour: grey RAL 7035

Door versions:

- Transparent smokey

Conditions for installation:

- For indoor/outdoor use

Type of consumer unit:

- Thermoplastic polycarbonate, GWT960°C
- Break-proof, shock resistance up to 20 joules (IK10)
- Dimensional stability -20°C up to +115°C

Mounting possibilities:

- Wall mounting
Cable entries with flanges for easy cable or conduit insertion (no need of glands)
– instruction sheet

Units supplied complete with:

- 4 module covers per row
- 1 self-adhesive label per row
- 4 screw cover caps for guarantee
- 1 plate for CEI 23-51 certification
- instruction sheet





2/4 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
100 x 160 x 100	12 742	7.48

8 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
205 x 220 x 140	12 743	12.11

12 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
275 x 220 x 140	12 745	16.56

24 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
275 x 370 x 140	12 746	28.43

36 Module IP65 Modular Unit

Size WxHxD	Order Code	Price £
275 x 570 x 140	12 747	42.23

The following products are suitable for mounting in the modules

- MCBs see pages 2/12 - 2/14
- RCCBs see pages 2/21
- RCBO see pages 2/15
- Modular Devices see pages 2/20 - 2/23



Recommended Terminals & Terminal Holders Quantities

For Switchboard type	Terminal Holders		Terminals	
	Order Code	Price £	Order Code	Price £
12743	12539 x 2	3.42	12531 x 2	1.19
12745	12540 x 1	3.98	12531 x 1	1.19
			12532 x 1	1.84
12746	12540 x 2	3.98	12533 x 2	2.44
12747	12540 x 2	3.98	12534 x 2	2.72

Wall Mounting Brackets

For Box Type	Order Code	Price £
Fits All	12 858	4.59

Screw Lead Sealing Accessory

For Box Type	Order Code	Price £
Fits All	12 860	3.76

Lock with Key

For Box Type	Order Code	Price £
Fits All	12 866	4.71

Technical Characteristics

Degree of protection: IP65

- Class of protection: II
- Standards: IEC 670, IMQ mark in compliance with CEI 23-48 and CEI 23-49
- Dimensions: 2 up to 36 DIN modules
- Colour: grey RAL 7035

Door versions:

- Hinged left or right with 140° opening

Conditions for installation:

- For indoor/outdoor use

Type of consumer unit:

- Polycarbonate, GWT960°C
- Break-proof, shock resistance up to 20 joules (IK10)
- Dimensional stability -25°C up to +115°C

Mounting possibilities:

- Wall mounting

Switchboards are supplied complete with:

- 4 screw-cover caps to guarantee
- 1 self-adhesive label per row
- accessories for hinging the front part
- 1 certification plate
- 1 semi-flush-mounting frame
- instruction sheet





Switchboards

Number of Modules	Size WxHxD	Order Code	Price £
4	136 x 540 x 140	13200	20.97
	275 x 370 x 140	13204	25.68
12	275 x 455 x 140	13205	29.96
	275 x 570 x 140	13206	36.26
18	380 x 570 x 140	13208	41.51

Recommended Terminals & Terminal Holders Quantities

For Switchboard type	Terminal Holders		Terminals	
	Order Code	Price £	Order Code	Price £
13204 - 13205	12540 x 1	3.98	12531 x 1	1.19
13206			12532 x 1	1.84
13208	12543 x 1	7.65	12531 x 1	1.19
			12535 x 1	2.91

Wall Mounting Brackets

For Box Type	Order Code	Price £
Fits All	12 858	4.59

Lock with Key

For Box Type	Order Code	Price £
Fits All	12 866	4.71

The following products are suitable for mounting in the modules

- MCBs see pages 2/12 - 2/14
- RCCBs see pages 2/21
- RCBO see pages 2/15
- Modular Devices see pages 2/20 - 2/23

Technical Characteristics

Degree of protection: IP40

- Class of protection: II
- Standards: IEC 695-2-1, CEI 23-48, CEI 23-49 and IEC 670
- Dimensions: 2 up to 10 DIN modules
- Colour: grey RAL 7035

Construction:

- Thermoplastic polycarbonate, IEC 695-2-1 GWT 960°C
- Break-proof, shock resistance up to 6 joules (IK8)
- Dimensional stability -25°C up to +115°C

Doors:

- Transparent smokey flaps

Degree of protection: IP55

- Class of protection: II
- Standards: IEC 695-2-1, CEI 23-48, CEI 23-49 and IEC 670
- Dimensions: 2 up to 10 DIN modules
- Colour: grey RAL 7035

Construction:

- Thermoplastic polycarbonate, IEC 695-2-1 GWT 650°C
- Break-proof, shock resistance up to 6 joules (IK8)
- Dimensional stability -20°C up to +85°C

Doors:

- Transparent smokey flaps





2 Module IP40 Panel Front

Size WxHxD	Order Code	Price £
81 x 90 x 50	12 362	4.11

3 Module IP40 Panel Front

Size WxHxD	Order Code	Price £
99 x 90 x 50	12 363	5.12

4 Module IP40 Panel Front

Size WxHxD	Order Code	Price £
117 x 90 x 50	12 364	6.24

4 Module IP55 Panel Front

Size WxHxD	Order Code	Price £
125 x 180 x 34	12 658	10.22

6 Module IP55 Panel Front

Size WxHxD	Order Code	Price £
160 x 180 x 34	12 659	12.15

10 Module IP55 Panel Front

Size WxHxD	Order Code	Price £
230 x 180 x 34	12 660	14.93

Lock with Key

For Box Type	Order Code	Price £
Fits All	12 865	4.71

The following products are suitable for mounting in the modules

- MCBs see pages 2/12 - 2/14
- RCCBs see pages 2/21
- RCBO see pages 2/15
- Modular Devices see pages 2/20 - 2/23

Slotted Trunking

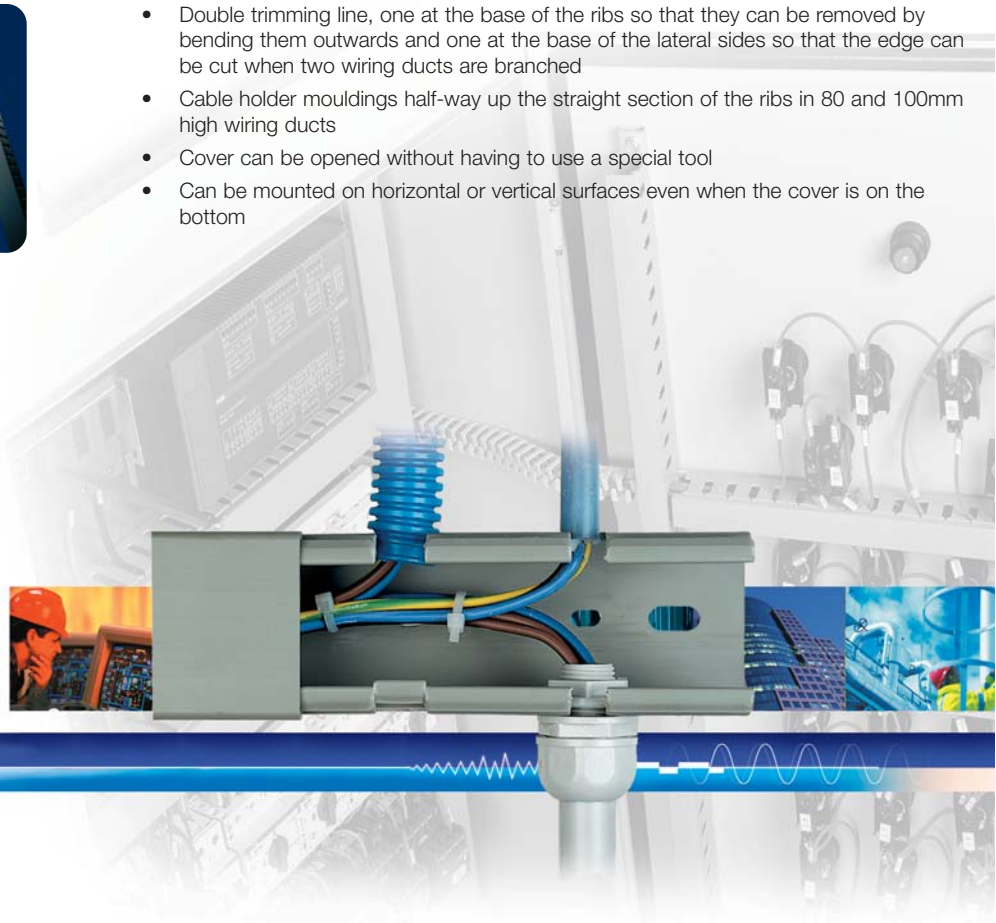


Technical Characteristics

Slotted Trunking

- Standard 2-metre length
- Colour RAL 7035 grey
- Resistant to acids, oils, and greases
- Plastic, insulating, shock-proof, self-extinguishing material in compliance with IL 94 V0 Standard and resistant to abnormal heat and fire up to 960°C (glow wire test) in compliance with IEC 695-2-1 Standard
- Minimum installation and usage temperature -15°C
- Maximum usage temperature $+60^{\circ}\text{C}$
- No burr, rounded off inner-edges
- New rib profile makes it easy to open and close the cover and guarantees that it clips on more safely
- Designed to snap on to the Fix-O-rapid special accessory, suitable to be fastened to both DIN rail and base plate
- The ribs are cut using a special pressing process (rounding of the edges) producing wiring ducts completely free of burr and rough edges
- The dimensions and resilience of the ribs ensure repeated splaying during cabling
- Controlled splaying of sides to ensure a perfect seal of the cover in the vertical sections and at high temperatures
- Double trimming line, one at the base of the ribs so that they can be removed by bending them outwards and one at the base of the lateral sides so that the edge can be cut when two wiring ducts are branched
- Cable holder mouldings half-way up the straight section of the ribs in 80 and 100mm high wiring ducts
- Cover can be opened without having to use a special tool
- Can be mounted on horizontal or vertical surfaces even when the cover is on the bottom

6



Slotted Trunking



Size WxH	Pack Quantity	4/6mm Slots Order Code	Price £ per 2 Metre length	8/12mm Slots Order Code	Price £ Per 2 Metre length
15 x 17	23	05119•	0.94	05019•	0.87
25 x 30	29	05133•	2.23	05033•	2.08
40 x 30	20	05135•	3.10	05035•	2.89
60 x 30	26	05137•	4.20	05037•	4.12
25 x 40	24	05143•	2.95	05043	2.90
40 x 40	15	05145•	3.58	05045	3.58
60 x 40	20	05147•	4.45	05047	4.74
80 x 40	16	05149•	5.28	05049	5.43
100 x 40	12	05151•	6.74	05051•	6.70
120 x 40	10	05153•	9.10	05053•	8.53
25 x 60	17	05163•	2.64	05063	3.44
40 x 60	11	05165•	4.27	05065	4.53
60 x 60	16	05167•	5.80	05067	5.72
80 x 60	12	05169•	6.43	05069•	6.87
100 x 60	10	05171•	7.92	05071•	8.39
120 x 60	7	05173•	9.77	05073•	10.24
25 x 80	14	05183•	4.24	05083	4.53
40 x 80	18	05185•	5.39	05085	5.24
60 x 80	12	05187•	7.12	05087	7.06
80 x 80	8	05189•	8.43	05089	8.31
100 x 80	8	05191•	9.58	05091•	10.60
120 x 80	6	05193•	11.06	05093•	11.71
25 x 100	10	05194•	5.97	05094•	5.87
40 x 100	14	05195•	7.58	05095•	8.02
60 x 100	10	05196•	9.04	05096•	9.12
80 x 100	7	05197•	9.48	05097•	9.12
100 x 100	4	05198•	10.95	05098•	12.17
150 x 100	4	05199•	16.86	05099•	15.78

Non Stock Item•

Technical Characteristics

Slotted Trunking Halogen Free

- Colour RAL 7035 Grey
 - Standard 2-metre length
 - Halogen free thermoplastic material in compliance with VDE 0472 Part 815 Standard: Br + Cl < 0.2%, F < 0.1%
 - Smoke toxicity index:
 - 8.2 in compliance with CEI 20-37 part 7 Standard
 - 23.3 in compliance with NF X70-100 and NF F16-101 Standards
 - Smoke opacity index*:
 - Dsm 217 (1.8mm)
 - V0F4 95 (1.8mm) in compliance with NF X10-702 Standard (reference NF F16-101) and ASTM E-662, NFPA 258 and IEC 60695-6-30 Standards
- *in event of a fire, it is extremely important for the smoke opacity level to be as low as possible during the first 4 minutes in order to allow people to move away from the areas of risk
- On the basis of the test values obtained during the smoke opacity and toxicity tests, the material falls within class F1 (in compliance with NF F16-101 Standard)
 - Insulating, shock-proof, self-extinguishing plastic material in compliance with UL 94 V0 Standard and resistant to abnormal heat and fire up to 850°C (glow wire test) in compliance with IEC 695-2-1 Standard
 - Dimensional stability from -40° to + 100°C
 - Resistant to acids, oils and greases
 - No burr, rounded-off inner edges
 - The dimensions and resilience of the rib ensure repeated splaying during wiring
 - Controlled splaying of sides to ensure a perfect seal of the cover in the vertical sections and at high temperatures
 - Double trimming line, one at the base of the ribs so that they can be removed by bending them outwards and one at the base of the lateral sides so that the edge can be cut when two wiring ducts can be branched
 - Cable holder mouldings half-way up the straight section of the ribs in the 80mm high wiring ducts
 - Compliance with the new EN 50085-2-3 European Standard

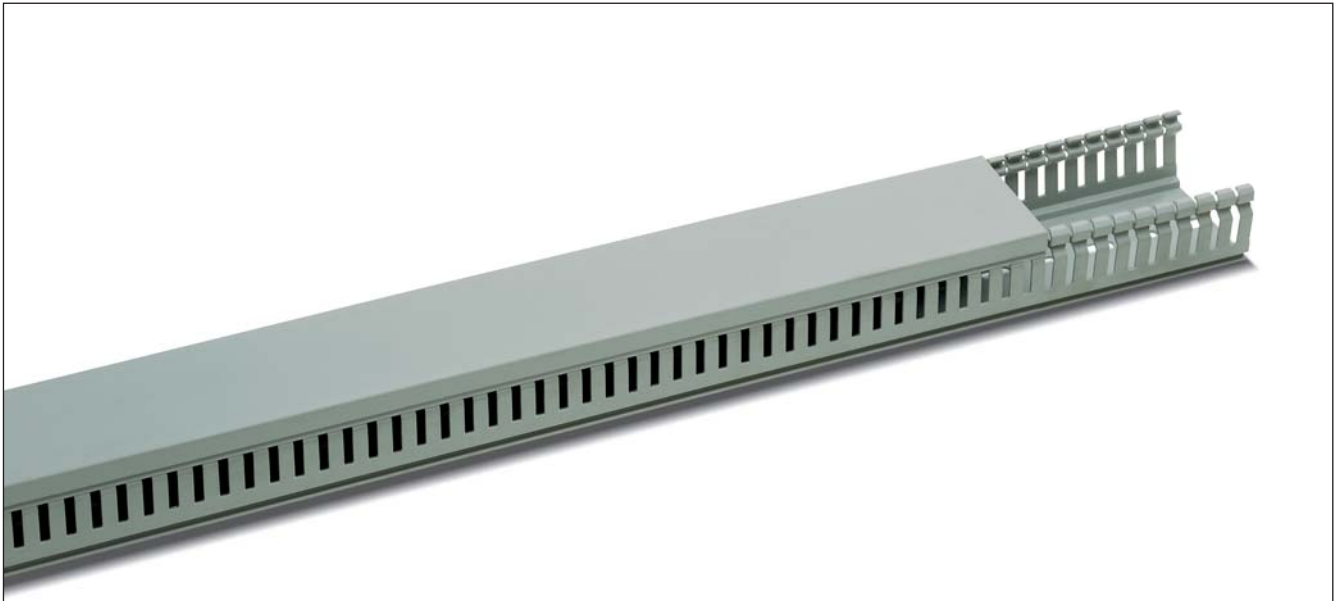
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Slotted Trunking

Halogen Free



Size WxH	Pack Quantity	4/6mm Slots Order Code	Price £ per 2 Metre length	8/12mm Slots Order Code	Price £ Per 2 Metre length
15 x 17	23	1SL9119A00•	6.72	1SL9019A00•	6.72
25 x 30	29	1SL9133A00•	12.11	1SL9033A00•	12.11
40 x 30	20	1SL9135A00•	18.00	1SL9035A00•	18.00
60 x 30	26	1SL9137A00•	22.12	1SL9037A00•	22.12
25 x 40	24	1SL9143A00•	13.44	1SL9043A00•	13.44
40 x 40	15	1SL9145A00•	21.65	1SL9045A00•	21.65
60 x 40	20	1SL9147A00•	22.84	1SL9047A00•	22.84
80 x 40	16	1SL9149A00•	27.97	1SL9049A00•	27.97
100 x 40	12	1SL9151A00•	31.98	1SL9051A00•	31.98
120 x 40	10	1SL9153A00•	44.09	1SL9053A00•	44.09
25 x 60	17	1SL9163A00•	18.36	1SL9063A00•	18.36
40 x 60	11	1SL9165A00•	24.97	1SL9065A00•	24.97
60 x 60	16	1SL9167A00•	31.51	1SL9067A00•	31.51
80 x 60	12	1SL9169A00•	34.08	1SL9069A00•	34.08
100 x 60	10	1SL9171A00•	46.69	1SL9071A00•	46.69
120 x 60	7	1SL9173A00•	73.18	1SL9073A00•	73.18
25 x 80	14	1SL9183A00•	25.70	1SL9083A00•	25.70
40 x 80	18	1SL9185A00•	34.30	1SL9085A00•	34.30
60 x 80	12	1SL9187A00•	50.20	1SL9087A00•	50.20
80 x 80	8	1SL9189A00•	56.02	1SL9089A00•	56.02
100 x 80	8	1SL9191A00•	61.51	1SL9091A00•	61.51
120 x 80	6	1SL9193A00•	79.72	1SL9093A00•	79.72

Non Stock Item•

Flexible Trunking

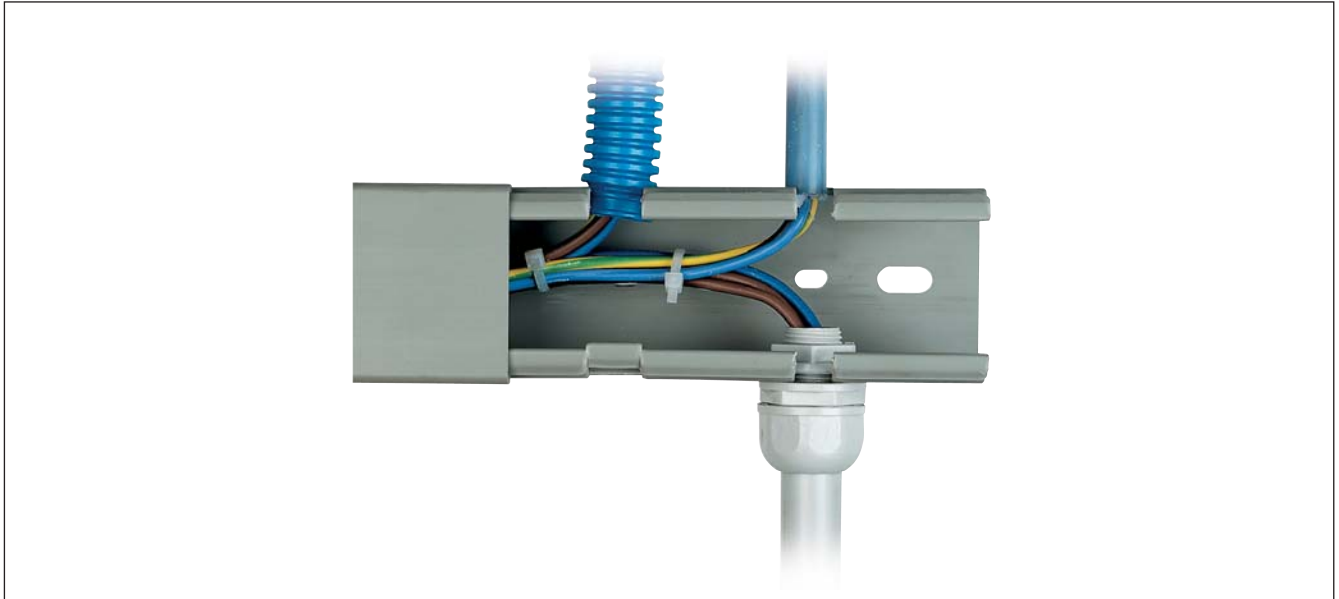


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Technical Characteristics

- Colour RAL 7040 grey
- Plastic, insulating, shock-proof, self-extinguishing material in compliance with UL 94 V2 Standard and resistant to permanent temperature of 80°C and peaks up to 110°C in compliance with IEC 216 Standards
- Resistant to acids, oils & greases
- Ribs alternate and angle slightly inwards to make it easier to insert and extract cables
- No covers so that cables can be constantly monitored
- Possibility of fastening using screws and rivets or bi-adhesive tape which sticks strongly to the steel (pre-mounted)
- Suitable for connecting panels and doors with compass-opening mechanisms and in general for applications where cabling is subject to bending and twisting
- Standard 500mm length
- Industrial application

Size WxH	Pack Quantity	Order Code	Price £ Per 500mm Length
12.5 x 12.5	112	05 400	3.00
16 x 16	84	05 402	3.33
20 x 20	112	05 405	4.08
25 x 25	70	05 410	4.52
30 x 30	50	05 415	5.38
40 x 40	50	05 420	6.94
50 x 50	32	05 425	8.33



Technical Characteristics

- Colour RAL 7030 grey
- Plastic, insulating, shock-proof, self-extinguishing material in compliance with UL 94 V2 Standard and resistant to abnormal heat and fire up to 960°C (glow wire test) in compliance with IEC 695-2-1 Standard
- Dimensional stability from -20 to +60°C
- Circular knockouts on sides with alternate diameters of 18 and 23mm and interaxis of 50mm
- Ideal solution for branch connection of rigid or corrugated conduits
- Specially designed for specific applications, such as lifts
- Standard 2-meter length
- Industrial application

Size WxH	Pack Quantity	Order Code	Price £ Per 2 Metre Length
50 x 50	18	05 330•	5.67
100 x 60	9	05 331•	8.84

Non Stock Item•

IP

Protection against solid objects

Protection against liquids

0	No protection	
1	Protected against solid objects up to 50mm eg. accidental touch by hands	
2	Protected against solid objects up to 12mm eg. fingers	
3	Protected against solid objects over 2.5mm (tools + wires)	
4	Protected against solid objects up to 1mm (tools wires + small wires)	
5	Protected against dust (no harmful deposit)	
6	Totally protected against dust	

0	No protection	
1	Protected against vertically falling drops of water eg. condensation	
2	Protected against direct sprays of water up to 15° from vertical	
3	Protected against direct sprays of water up to 60° from vertical	
4	Protected against low pressure jets of water from all directions	
5	Protected against low pressure jets of water from all directions	
6	Protected against strong jets of water eg. for use on ship decks	
7	Protected against the effects of immersion between 15cm and 1m.	
8	Protected against long periods of immersion under pressure	

6



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
12363	99	90	50	6/130	5.12
12364	117	90	50	6/130	6.24
12644	125	180	105	6/118	7.72
12646	160	180	105	6/118	10.67
12650	230	180	105	6/118	16.56
12652	250	320	135	6/118	28.42
12654	250	320	135	6/118	24.30
12658	125	180	34	6/130	10.22
12659	160	180	34	6/130	12.15
12660	230	180	34	6/130	14.93
12702	100	160	85	6/115	2.72
12704	140	220	110	6/115	5.36
12708	205	220	110	6/115	8.73
12712	275	220	110	6/115	9.64
12714	275	370	110	6/115	22.07
12716	275	570	110	6/115	32.86
12718	380	570	120	6/115	38.69
12724	140	220	140	6/121	11.47
12728	205	220	140	6/121	13.01
12732	275	220	140	6/121	16.56
12733	380	220	140	6/121	18.92
12734	275	370	140	6/121	28.43
12736	275	570	140	6/121	42.23
12738	380	570	140	6/121	48.73
12742	100	160	100	6/125	7.48
12743	205	220	140	6/125	12.11
12744	140	220	140	6/122	9.60
12745	275	220	140	6/125	16.56
12746	275	370	140	6/125	28.43
12747	275	570	140	6/125	42.23
12748	205	220	140	6/122	12.40
12752	275	220	140	6/122	16.56
12753	380	220	140	6/122	18.92
12754	275	370	140	6/122	28.42
12756	275	570	140	6/122	42.23
12758	380	570	140	6/122	48.71
12832				6/103	4.46
12834				6/103	4.80
12835				6/103	5.46
12836				6/103	6.95

Order Code	Dimensions			Page	Price
	H	W	D		
12837				6/103	9.27
12838				6/103	11.26
12858				6/119	4.59
12860				6/116	3.76
12865				6/119	4.71
12866				6/128	4.71
12880				6/119	5.04
12882				6/119	5.38
12884				6/119	9.32
12886				6/119	9.32
00 800	35	ø60		6/100	0.64
00 802	40	ø80		6/100	0.79
00 808	65	65	32	6/100	0.86
00 810	80	80	40	6/100	0.98
00 816	100	100	50	6/100	1.82
00 820	105	70	50	6/100	1.65
00 821	100	100	80	6/100	1.84
00 822	153	110	66	6/100	3.12
00 824	160	135	77	6/100	5.56
00 826	220	170	80	6/100	7.22
00 828	310	240	110	6/100	13.20
00 830	160	135	150	6/100	6.46
00 832	220	170	150	6/100	10.15
00 834	310	240	160	6/100	17.44
00 846	100	100	50	6/101	1.72
00 850	105	70	50	6/101	1.77
00 851	100	100	80	6/101	2.00
00 852	153	110	66	6/101	2.70
00 854	160	135	77	6/101	4.38
00 856	220	170	80	6/101	6.77
00 858	310	240	110	6/101	11.75
00 860	160	135	150	6/101	5.29
00 862	220	170	150	6/101	8.79
00 864	310	240	160	6/101	14.51
00 872	153	110	66	6/101	4.59
00 874	160	135	77	6/101	5.64
00 876	220	170	80	6/101	9.55
00 878	310	240	110	6/101	16.80
00 880	160	135	150	6/101	7.69
00 882	220	170	150	6/101	12.54





Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
00 884	310	240	160	6/101	19.65
010011001SS1	92	92	55	4/74	73.49
010011002SS2	92	152	55	4/74	79.61
010011003SS3	92	210	55	4/74	91.85
05 330	50	50		6/136	5.67
05 331	60	100		6/136	8.84
05 400	12.5	12.5		6/135	3.00
05 402	16	16		6/135	3.33
05 405	20	20		6/135	4.08
05 410	25	25		6/135	4.52
05 415	30	30		6/135	5.38
05 420	40	40		6/135	6.94
05 425	50	50		6/135	8.33
05019	17	15		6/132	0.87
05033	30	25		6/132	2.08
05035	30	40		6/132	2.89
05037	30	60		6/132	4.12
05043	40	25		6/132	2.90
05045	40	40		6/132	3.58
05047	40	60		6/132	4.74
05049	40	80		6/132	5.43
05051	40	100		6/132	6.70
05053	40	120		6/132	8.53
05063	60	25		6/132	3.44
05065	60	40		6/132	4.53
05067	60	60		6/132	5.72
05069	60	80		6/132	6.87
05071	60	100		6/132	8.39
05073	60	120		6/132	10.24
05083	80	25		6/132	4.53
05085	80	40		6/132	5.24
05087	80	60		6/132	7.06
05089	80	80		6/132	8.31
05091	80	100		6/132	10.60
05093	80	120		6/132	11.71
05094	80	25		6/132	5.87
05095	100	40		6/132	8.02
05096	100	60		6/132	9.12
05097	100	80		6/132	9.12
05098	100	100		6/132	12.17

Order Code	Dimensions			Page	Price
	H	W	D		
05099	100	150		6/132	15.78
05119	17	15		6/132	0.94
05133	30	25		6/132	2.23
05135	30	40		6/132	3.10
05137	30	60		6/132	4.20
05143	40	25		6/132	2.95
05145	40	40		6/132	3.58
05147	40	60		6/132	4.45
05149	40	80		6/132	5.28
05151	40	100		6/132	6.74
05153	40	120		6/132	9.10
05163	60	25		6/132	2.64
05165	60	40		6/132	4.27
05167	60	60		6/132	5.80
05169	60	80		6/132	6.43
05171	60	100		6/132	7.92
05173	60	120		6/132	9.77
05183	80	25		6/132	4.24
05185	80	40		6/132	5.39
05187	80	60		6/132	7.12
05189	80	80		6/132	8.43
05191	80	100		6/132	9.58
05193	80	120		6/132	11.06
05194	100	25		6/132	5.97
05195	100	40		6/132	7.58
05196	100	60		6/132	9.04
05197	100	80		6/132	9.48
05198	100	100		6/132	10.95
05199	100	150		6/132	16.86
10TERM 2.5	130	130	100	6/95	18.35
10TERM 4	130	130	100	6/95	20.06
110381				2/12	1.56
122EXE0-D	230	107	133	4/57	65.73
122EXE0D-OL	230	107	133	4/57	41.57
122EXE1-D	248	125	156	4/59	75.90
122EXE2-DI	218	200	201	4/61	151.59
122EXE2DI-OL	218	200	201	4/61	127.43
122EXE2-DR	218	200	155	4/62	130.55
12362	81	90	50	6/130	4.11
124EXE0-D	230	107	133	4/57	65.73



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
124EXE0D-OL	230	107	133	4/57	41.58
124EXE1-D	218	115	125	4/58	75.90
124EXE1D-OL	218	115	125	4/58	51.75
124EXE1D-OL	218	115	125	4/59	51.75
124EXE2-DI	218	200	170	4/60	151.59
124EXE2DI-OL	218	200	170	4/60	127.43
124EXE2-DR	218	200	155	4/62	130.55
124T1PB3	1450	690	240	2/34	746.72
124T3PB3	1650	690	240	2/34	880.06
12531 x 1				6/103	1.19
12531 x 2				6/103	1.19
12532 x 1				6/103	1.84
12533 x 2				6/103	2.44
12534 x 2				6/103	2.72
12535 x 1				6/128	2.91
12535 x 2				6/103	2.91
12538 x 2				6/103	3.06
12539 x 2				6/103	3.42
12540 x 1				6/103	3.98
12540 x 2				6/103	3.98
12543 x 1				6/128	7.65
12543 x 2				6/103	7.65
12764	140	220	140	6/105	13.44
12768	205	220	140	6/105	17.89
12772	275	220	140	6/105	19.59
12774	275	370	140	6/105	26.23
12776	275	570	140	6/105	40.32
12778	380	570	140	6/105	47.59
12784	140	220	140	6/105	13.44
12788	205	220	140	6/105	17.89
12792	275	220	140	6/105	19.59
12794	275	370	140	6/105	26.23
12796	275	570	140	6/105	40.32
12798	380	570	140	6/105	47.59
12804	220	140	140	6/103	11.41
12808	220	205	140	6/103	13.06
12812	220	275	140	6/103	15.30
12814	370	275	140	6/103	21.63
12816	570	275	140	6/103	31.75
12818	570	380	140	6/103	38.32

Order Code	Dimensions			Page	Price
	H	W	D		
12820				6/106	24.73
12821				6/106	31.24
12822				6/106	36.45
12832				6/105	4.46
12834				6/105	4.80
12835				6/105	5.46
12836				6/105	6.95
12837				6/105	9.27
12838				6/105	11.26
12842				6/103	2.27
12844				6/103	3.04
12845				6/103	4.21
12846				6/103	6.14
12847				6/103	7.48
12848				6/103	11.13
12858				6/103	4.59
128T1PB3	1450	690	240	2/34	944.51
128T3PB3	1650	690	240	2/34	1014.05
12EXE0-D	230	107	133	4/57	65.73
12EXE1-D	248	125	156	4/59	68.35
12EXE2-DI	218	200	201	4/61	151.59
13200	136	540	140	6/128	20.97
13204	275	370	140	6/128	25.68
13205	275	455	140	6/128	29.96
13206	275	570	140	6/128	36.26
13208	380	570	140	6/128	41.51
142EXE2S	213	308	173	4/63	247.10
142EXE2SI	213	360	188	4/64	318.36
144EXE2S	213	308	155	4/63	247.10
144EXE2SI	213	360	170	4/64	318.36
14EXE0-D	230	107	133	4/57	65.73
14EXE1-D	218	115	125	4/58	68.35
14EXE2-DI	218	200	170	4/60	151.59
1721 BS-20	86	86	15	5/85	2.54
1721 BS-22G	86	86	15	5/85	1.12
1721 BS-24G	86	86	15	5/85	0.92
1721 BS-260	86	86	15	5/85	2.54
1721 BS-266	86	86	15	5/85	2.54
182EXE0-D	230	107	133	4/57	74.54
182EXE0D-OL	230	107	133	4/57	45.43



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
182EXE1-D	248	125	156	4/59	78.75
182EXE1DSS-OL	218	115	125	4/59	109.21
182EXE2-DI	218	200	201	4/61	151.59
182EXE2DI-OL	218	200	201	4/61	127.43
182EXE2DISS-OL	218	200	201	4/61	54.60
182EXE2-DR	218	200	155	4/62	130.55
182EXE2DR-OL	218	200	155	4/62	105.72
182EXE2DRSS-OL	218	200	155	4/62	211.43
184EXE0-D	230	107	133	4/57	74.54
184EXE0D-OL	230	107	133	4/57	45.43
184EXE1-D	218	115	125	4/58	78.75
184EXE1D-OL	218	115	125	4/58	54.60
184EXE1D-OL	218	115	125	4/59	54.60
184EXE1DSS-OL	218	115	125	4/58	109.21
184EXE2-DI	218	200	170	4/60	151.59
184EXE2DI-OL	218	200	170	4/60	127.43
184EXE2DISS-OL	218	200	170	4/60	254.86
184EXE2-DR	218	200	155	4/62	130.55
184EXE2DR-OL	218	200	155	4/62	54.60
184EXE2DRSS-OL	218	200	155	4/62	54.60
184T1PB3	1850	690	240	2/34	959.51
188T1PB3	1850	690	240	2/34	1102.64
188T3PB3	2050	690	240	2/34	1227.87
1CS8596				2/36	7.50
1G0	75	88	78	4/73	17.33
1H 3 I-0-II	75	88	96	4/73	27.90
1H2 0-I	75	88	96	4/73	20.85
1K2 0-I	75	88	96	4/73	27.13
1K3 I-0-II	75	88	84	4/73	34.18
1RC	75	88	84	4/73	17.33
1RMSC50	75	88	105	4/73	33.81
1RMSKC	75	88	98	4/73	35.56
1RSC	75	88	96	4/73	23.38
1RSC-EN	75	88	105	4/73	32.07
1RSC-ENSS	106	140	148	4/74	57.05
1SDA014040R1				2/36	16.49
1SDA018951R1				2/37	887.81
1SDA019059R1				2/37	944.92
1SDA020724R1	268	210	103	2/37	833.05
1SDA050870R1	130	76	70	2/35	78.35

Order Code	Dimensions			Page	Price
	H	W	D		
1SDA050871R1	130	76	70	2/35	78.35
1SDA050872R1	130	76	70	2/35	78.35
1SDA050873R1	130	76	70	2/35	78.35
1SDA050874R1	130	76	70	2/35	78.35
1SDA050875R1	130	76	70	2/35	78.35
1SDA050876R1	130	76	70	2/35	78.35
1SDA050877R1	130	76	70	2/35	80.48
1SDA050878R1	130	76	70	2/35	80.48
1SDA050879R1	130	76	70	2/35	82.40
1SDA050880R1	130	76	70	2/35	109.96
1SDA050894R1	130	76	70	2/35	106.34
1SDA050895R1	130	76	70	2/35	106.34
1SDA050896R1	130	76	70	2/35	106.34
1SDA050897R1	130	76	70	2/35	106.34
1SDA050898R1	130	76	70	2/35	106.34
1SDA050899R1	130	76	70	2/35	109.80
1SDA050900R1	130	76	70	2/35	109.80
1SDA050901R1	130	76	70	2/35	116.67
1SDA050902R1	130	76	70	2/35	143.22
1SDA050917R1	130	76	70	2/35	125.65
1SDA050918R1	130	76	70	2/35	125.65
1SDA050919R1	130	76	70	2/35	125.65
1SDA050920R1	130	76	70	2/35	125.65
1SDA050921R1	130	76	70	2/35	128.20
1SDA050922R1	130	76	70	2/35	128.20
1SDA050923R1	130	76	70	2/35	128.20
1SDA050924R1	130	76	70	2/35	165.66
1SDA051241R1	150	105	70	2/36	158.27
1SDA051242R1	150	105	70	2/36	158.27
1SDA051243R1	150	105	70	2/36	158.27
1SDA051244R1	150	105	70	2/36	174.56
1SDA051245R1	150	105	70	2/36	222.27
1SDA051246R1	150	105	70	2/36	222.27
1SDA051247R1	150	105	70	2/37	307.10
1SDA051247R1	150	105	70	2/36	307.10
1SDA051263R1	150	105	70	2/36	174.10
1SDA051264R1	150	105	70	2/36	174.10
1SDA051265R1	150	105	70	2/36	174.10
1SDA051266R1	150	105	70	2/36	192.04
1SDA051267R1	150	105	70	2/36	244.49



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
1SDA051268R1	150	105	70	2/36	244.49
1SDA051269R1	150	105	70	2/36	337.81
1SDA051327R1	150	105	70	2/13	168.66
1SDA051327R1	150	105	70	2/37	168.66
1SDA051327R1	150	105	70	2/23	168.66
1SDA051415R1				2/36	9.05
1SDA051419R1				2/36	12.93
1SDA051480R1				2/36	14.48
1SDA051482R1				2/13	7.24
1SDA051482R1				2/36	7.24
1SDA051482R1				2/23	7.24
1SDA052616R1				2/35	54.67
1SDA052617R1				2/35	54.67
1SDA052618R1				2/35	54.67
1SDA052619R1				2/35	54.67
1SDA052620R1				2/35	54.67
1SDA052621R1				2/35	54.67
1SDA052622R1				2/35	54.67
1SDA052623R1				2/35	54.67
1SDA052624R1				2/35	54.67
1SDA052625R1				2/35	60.34
1SDA052626R1				2/35	66.15
1SDA054317R1	205	140	103	2/37	436.43
1SDA054396R1	205	140	103	2/37	695.12
1SDA054404R1	205	140	103	2/37	764.63
1SDA054599R1	205	140	103	2/37	373.70
1SDA054601R1	205	140	103	2/37	533.27
1SDA054960R1				2/36	18.30
1SL0201A00	400	335	210	6/109	67.38
1SL0202A00	550	460	260	6/109	102.82
1SL0203A00	700	460	260	6/109	130.52
1SL0204A00	700	590	260	6/109	155.19
1SL0205A00	855	590	360	6/109	233.31
1SL0206A00	1005	840	360	6/109	452.57
1SL0211A00	400	335	210	6/109	82.19
1SL0212A00	550	460	260	6/109	119.42
1SL0213A00	700	460	260	6/109	142.72
1SL0214A00	700	590	260	6/109	187.21
1SL0215A00	855	590	360	6/109	249.88
1SL0216A00	1005	840	360	6/109	480.62

Order Code	Dimensions			Page	Price
	H	W	D		
1SL0252A00	450	375		6/111	21.66
1SL0253A00	600	375		6/111	25.69
1SL0254A00	600	500		6/111	31.38
1SL0255A00	750	500		6/111	41.92
1SL0256A00	900	750		6/111	93.44
1SL0259A00	285	235		6/110	7.11
1SL0260A00	435	360		6/110	11.03
1SL0261A00	585	360		6/110	15.00
1SL0262A00	585	485		6/110	19.65
1SL0263A00	735	485		6/110	28.42
1SL0264A00	885	735		6/110	54.84
1SL0283A00	300			6/111	8.53
1SL0284A00	450			6/111	9.12
1SL0285A00	600			6/111	11.49
1SL0286A00	750			6/111	13.85
1SL0287A00	900			6/111	21.66
1SL0290A00		210		6/112	3.79
1SL0291A00		318		6/112	4.08
1SL0292A00		443		6/112	4.92
1SL0293A00		663		6/112	7.29
1SL0296A00	130	210		6/111	5.46
1SL0297A00	130	318		6/111	7.11
1SL0298A00	130	443		6/111	9.41
1SL0299A00	130	663		6/111	17.17
1SL0302A00	280	318		6/111	14.32
1SL0303A00	280	443		6/111	17.78
1SL0304A00	280	663		6/111	31.38
1SL0307A00	150	250		6/112	9.77
1SL0308A00	150	375		6/112	10.89
1SL0309A00	150	500		6/112	13.54
1SL0310A00	150	750		6/112	17.89
1SL0313A00	225	375		6/112	14.72
1SL0314A00	255	500		6/112	18.28
1SL0315A00	255	750		6/112	24.15
1SL0318A00	75	250		6/113	4.84
1SL0319A00	75	375		6/113	5.51
1SL0319A00	75	375		6/113	5.51
1SL0320A00	75	500		6/113	6.47
1SL0321A00	75	500		6/113	7.25
1SL0324A00	150	250		6/113	8.06



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
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1SL0325A00	150	375		6/113	9.18
1SL0326A00	150	500		6/113	10.78
1SL0327A00	150	750		6/113	12.07
1SL0330A00	300	250		6/113	13.62
1SL0331A00	300	375		6/113	14.80
1SL0332A00	300	500		6/113	21.58
1SL0333A00	300	750		6/113	26.64
1SL0336A00	150	370		6/112	17.43
1SL0337A00	150	500		6/112	21.66
1SL0338A00	150	750		6/112	28.60
1SL0339A00				6/113	1.14
1SL0340A00				6/113	8.24
1SL0341A00				6/113	1.14
1SL0342A00				6/113	4.86
1SL0343A00				6/113	19.51
1SL0344A00				6/113	21.22
1SL0345A00				6/113	26.67
1SL0346A00				6/113	34.14
1SL0350A00				6/113	32.09
1SL0351A00				6/113	49.35
1SL0352A00	305	800	165	6/113	201.98
1SL0370A00	300	370		6/112	26.15
1SL0371A00	300	500		6/112	32.49
1SL0372A00	300	750		6/112	42.92
1SL9019A00	17	15		6/134	6.72
1SL9033A00	30	25		6/134	12.11
1SL9035A00	30	40		6/134	18.00
1SL9037A00	30	60		6/134	22.12
1SL9043A00	40	25		6/134	13.44
1SL9045A00	40	40		6/134	21.65
1SL9047A00	40	60		6/134	22.84
1SL9049A00	40	80		6/134	27.97
1SL9051A00	40	100		6/134	31.98
1SL9053A00	40	120		6/134	44.09
1SL9063A00	60	25		6/134	18.36
1SL9065A00	60	40		6/134	24.97
1SL9067A00	60	60		6/134	31.51
1SL9069A00	60	80		6/134	34.08
1SL9071A00	60	100		6/134	46.69
1SL9073A00	60	120		6/134	73.18

Order Code	Dimensions			Page	Price
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1SL9083A00	80	25		6/134	25.70
1SL9085A00	80	40		6/134	34.30
1SL9087A00	80	60		6/134	50.20
1SL9089A00	80	80		6/134	56.02
1SL9091A00	80	100		6/134	61.51
1SL9093A00	80	120		6/134	79.72
1SL9119A00	17	15		6/134	6.72
1SL9133A00	30	25		6/134	12.11
1SL9135A00	30	40		6/134	18.00
1SL9137A00	30	60		6/134	22.12
1SL9143A00	40	25		6/134	13.44
1SL9145A00	40	40		6/134	21.65
1SL9147A00	40	60		6/134	22.84
1SL9149A00	40	80		6/134	27.97
1SL9151A00	40	100		6/134	31.98
1SL9153A00	40	120		6/134	44.09
1SL9163A00	60	25		6/134	18.36
1SL9165A00	60	40		6/134	24.97
1SL9167A00	60	60		6/134	31.51
1SL9169A00	60	80		6/134	34.08
1SL9171A00	60	100		6/134	46.69
1SL9173A00	60	120		6/134	73.18
1SL9183A00	80	25		6/134	25.70
1SL9185A00	80	40		6/134	34.30
1SL9187A00	80	60		6/134	50.20
1SL9189A00	80	80		6/134	56.02
1SL9191A00	80	100		6/134	61.51
1SL9193A00	80	120		6/134	79.72
202D1				2/21	27.73
202D2				2/21	27.47
2112 U-101				5/86	21.44
212EXE2S	213	308	173	4/63	247.10
212EXE2SI	213	360	188	4/64	318.36
214EXE2S	213	308	155	4/63	247.10
214EXE2SI	213	360	170	4/64	318.36
2247 U-500				5/85	27.04
2250 U				5/85	23.82
22EXE0-D	230	107	133	4/57	65.73
22EXE1-D	248	125	156	4/59	68.35
22EXE2-DI	218	200	201	4/61	151.59



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
22EXE2-DR	218	200	155	4/62	130.55
2332 UJBS-20				5/83	40.30
2332 UJBS-22G				5/83	50.04
2332 UJBS-24G				5/83	50.04
2332 UJBS-260				5/83	40.30
2332 UJBS-266				5/83	40.30
24EXE0-D	230	107	133	4/57	65.73
24EXE1-D	218	115	125	4/58	68.35
24EXE2-DI	218	200	170	4/60	151.59
24EXE2-DR	218	200	155	4/62	130.55
250T33P				2/37	55.22
262EXE1-D	248	125	156	4/59	97.96
262EXE2-DI	218	200	201	4/61	167.93
262EXE2DI-OL	218	200	201	4/61	135.60
264EXE1-D	218	115	125	4/58	97.96
264EXE1D-OL	218	115	125	4/58	65.63
264EXE1D-OL	218	115	125	4/59	65.63
264EXE2-DI	218	200	170	4/60	167.93
264EXE2DI-OL	218	200	170	4/60	135.60
2CMA139501R1000					5.01
2CMA180890R1000					7.51
2CMA180891R1000					85.47
2CMA180892R1000					87.80
2CMA180893R1000					93.48
2CMA180894R1000					95.95
2CMA180895R1000					105.27
2CMA180896R1000					107.89
2GORC				4/74	26.75
2GORSC-EN				4/74	34.84
312EXE1-D	248	125	156	4/59	123.54
312EXE1DSS-OL	218	115	125	4/59	161.99
312EXE2-DI	218	200	201	4/61	201.67
312EXE2DI-OL	218	200	201	4/61	159.04
312EXE2DISS-OL	218	200	201	4/61	81.00
312EXE2S	213	308	173	4/63	257.17
312EXE2SI	213	360	188	4/64	328.43
312EXE2SI-OL	213	360	188	4/64	299.33
312EXE2S-OL	213	308	173	4/63	228.06
312EXE2SS-OL	213	360	188	4/64	364.84
312EXE2SSS-OL	213	308	173	4/63	364.92

Order Code	Dimensions			Page	Price
	H	W	D		
314EXE1-D	218	115	125	4/58	123.54
314EXE1D-OL	218	115	125	4/58	81.00
314EXE1D-OL	218	115	125	4/59	81.00
314EXE1DSS-OL	218	115	125	4/58	161.99
314EXE2-DI	218	200	170	4/60	201.67
314EXE2DI-OL	218	200	170	4/60	159.04
314EXE2DISS-OL	218	200	170	4/60	318.06
314EXE2S	213	308	155	4/63	257.17
314EXE2SI	213	360	170	4/64	328.43
314EXE2SI-OL	213	360	170	4/64	299.33
314EXE2S-OL	213	308	155	4/63	228.06
314EXE2SSS-OL	213	308	155	4/63	364.92
314EXE2SSS-OL	213	360	170	4/64	364.92
32EXE0-D	230	107	133	4/57	65.73
32EXE1-D	248	125	156	4/59	68.35
32EXE2-DI	218	200	201	4/61	151.59
32EXE2-DR	218	200	155	4/62	130.55
34EXE0-D	230	107	133	4/57	65.73
34EXE1-D	218	115	125	4/58	68.35
34EXE2-DI	218	200	170	4/60	151.59
34EXE2-DR	218	200	155	4/62	130.55
3GOGORC				4/74	41.06
3GOGORSC-EN				4/74	48.38
400DC3/4P				2/37	45.76
400T53P				2/37	61.88
42EXE0-D	230	107	133	4/57	65.73
42EXE1-D	248	125	156	4/59	68.35
42EXE2-DI	218	200	201	4/61	151.59
42EXE2-DR	218	200	155	4/62	130.55
44EXE0-D	230	107	133	4/57	65.73
44EXE1-D	218	115	125	4/58	68.35
44EXE2-DI	218	200	170	4/60	151.59
44EXE2-DR	218	200	155	4/62	130.55
452EXE2S	213	308	173	4/63	409.65
452EXE2SI	213	360	188	4/64	549.41
452EXE2SI-OL	213	360	188	4/64	506.85
452EXE2S-OL	213	308	173	4/63	367.10
452EXE2SS-OL	213	360	188	4/64	587.35
452EXE2SSS-OL	213	308	173	4/63	587.35
452EXE2SSS-OL	213	360	188	4/64	587.35



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
454EXE2S	213	308	155	4/63	409.65
454EXE2SI	213	360	170	4/64	549.41
454EXE2SI-OL	213	360	170	4/64	506.85
454EXE2S-OL	213	308	155	4/63	367.10
454EXE2SSS-OL	213	308	155	4/63	587.35
52EXE0-D	230	107	133	4/57	65.73
52EXE1-D	248	125	156	4/59	68.35
52EXE2-DI	218	200	201	4/61	151.59
52EXE2-DR	218	200	155	4/62	130.55
54EXE0-D	230	107	133	4/57	65.73
54EXE1D	218	115	125	4/58	65.25
54EXE2-DI	218	200	170	4/60	151.59
54EXE2-DR	218	200	155	4/62	130.55
5-JBOX2.5	80	80	50	6/95	11.24
5TERM 2.5	130	130	100	6/95	14.49
5TERM 4	130	130	100	6/95	15.36
62EXE0-D	230	107	133	4/57	65.73
62EXE1-D	248	125	156	4/59	68.35
62EXE2-DI	218	200	201	4/61	151.59
62EXE2-DR	218	200	155	4/62	130.55
630ST3P				2/37	69.61
6401 U-102-500				5/88	44.45
6402 U-500				5/88	79.40
640T1PB3	1050	690	204	2/34	572.26
640T3PB3	1250	690	204	2/34	662.27
64EXE0-D	230	107	133	4/57	65.73
64EXE1-D	218	115	125	4/58	68.35
64EXE2-DI	218	200	170	4/60	151.59
64EXE2-DR	218	200	155	4/62	130.55
6513 U-102-500				5/85	44.32
6517 U-101				5/85	30.22
6519 U				5/86	61.86
6540-20				5/85	13.05
6540-22G				5/85	9.09
6540-22G-102				5/85	16.46
6540-24				5/85	10.30
6540-24-102				5/85	14.31
6540-260				5/85	13.05
6540-260-102				5/85	17.70
6540-266				5/85	13.05

Order Code	Dimensions			Page	Price
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6540-266-102				5/85	17.70
6543-20-102				5/85	17.70
6550 U-101-500				5/86	96.63
6550 U-101-500				5/88	96.63
6560 U				5/86	47.28
6590 U-103-500				5/88	81.87
6591 U				5/86	69.30
6593 U-500				5/86	62.15
6800-0-2029				5/87	66.90
6804 U-500				5/87	31.08
6805 U-500				5/87	29.01
680T3PB3				2/34	688.94
6812 U-101-500				5/87	40.28
6813-101-500				5/87	89.95
6840				5/79	82.71
6840-101-500				5/79	20.31
6852 AGM-204-102-500	75	85	150	5/77	44.60
6852 AGM-35-102-500	75	85	150	5/77	44.60
6878 AGM-201-102-500	75	85	150	5/77	68.05
6878 AGM-204-102-500	75	85	150	5/77	68.05
6878 AGM-35-102-500	75	85	150	5/77	68.05
6879 AGM-201-102-500	75	85	150	5/79	81.15
6879 AGM-204-102-500	75	85	150	5/79	81.15
6879 AGM-35-102-500	75	85	150	5/79	81.15
6880 AGM-201-102-500	75	85	150	5/78	74.76
6880 AGM-204-102-500	75	85	150	5/78	74.76
6880 AGM-35-102-500	75	85	150	5/78	74.76
6885-500				5/79	15.60
6886-201-500				5/78	5.30
6886-204-500				5/78	5.30
6886-35-500				5/78	5.30
6MBT11P				2/36	20.28
800DC3P				2/37	72.58
800S63P				2/37	61.54
82EXE0-D	230	107	133	4/57	65.73
82EXE0D-OL	230	107	133	4/57	41.57
82EXE1-D	248	125	156	4/59	68.35
82EXE2-DI	218	200	201	4/61	151.59
82EXE2DI-OL	218	200	201	4/61	127.44
82EXE2-DR	218	200	155	4/62	130.55



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
84EXE0-D	230	107	133	4/57	65.73
84EXE0D-OL	230	107	133	4/57	41.57
84EXE1-D	218	115	125	4/58	68.35
84EXE1D-OL	218	115	125	4/58	44.21
84EXE1D-OL	218	115	125	4/59	44.21
84EXE2-DI	218	200	170	4/60	151.59
84EXE2DI-OL	218	200	170	4/60	127.44
84EXE2-DR	218	200	155	4/62	130.55
981102				2/30	4.44
981181				2/30	12.22
981184				2/30	23.34
99837090				2/31	POA
99837091				2/31	POA
A 0201 IVY	86	86	15	5/84	12.39
A 0201 PAL	86	86	15	5/84	15.93
A 0201 PLM	86	86	15	5/84	15.93
A 0201 TIN	86	86	15	5/84	15.93
A 0201 WHI	86	86	15	5/84	7.25
A 0202 IVY	86	86	15	5/84	8.31
A 0202 PAL	86	86	15	5/84	14.66
A 0202 PLM	86	86	15	5/84	14.66
A 0202 TIN	86	86	15	5/84	14.66
A 0202 WHI	86	86	15	5/84	4.97
A 1002 IVY	86	86	15	5/82	5.71
A 1002 PAL	86	86	15	5/82	7.40
A 1002 PLM	86	86	15	5/82	7.40
A 1002 TIN	86	86	15	5/82	7.40
A 1002 WHI	86	86	15	5/82	3.85
A 1003 IVY	86	86	15	5/82	9.19
A 1003 PAL	86	86	15	5/82	12.57
A 1003 PLM	86	86	15	5/82	12.57
A 1003 TIN	86	86	15	5/82	12.57
A 1003 WHI	86	86	15	5/82	8.27
A 1015 IVY	86	86	15	5/83	11.27
A 1015 PAL	86	86	15	5/83	14.70
A 1015 PLM	86	86	15	5/83	14.70
A 1015 TIN	86	86	15	5/83	14.70
A 1015 WHI	86	86	15	5/83	9.80
A 1017 IVY	86	86	15	5/83	15.43
A 1017 PAL	86	86	15	5/83	19.67

Order Code	Dimensions			Page	Price
	H	W	D		
A 1017 PLM	86	86	15	5/83	19.67
A 1017 TIN	86	86	15	5/83	19.67
A 1017 WHI	86	86	15	5/83	11.30
A 1018 IVY	86	86	15	5/83	18.04
A 1018 PAL	86	86	15	5/83	21.44
A 1018 PLM	86	86	15	5/83	21.44
A 1018 TIN	86	86	15	5/83	21.44
A 1018 WHI	86	86	15	5/83	10.23
A 1019 IVY	86	86	15	5/83	10.42
A 1019 PAL	86	86	15	5/83	12.36
A 1019 PLM	86	86	15	5/83	12.36
A 1019 TIN	86	86	15	5/83	12.36
A 1019 WHI	86	86	15	5/83	6.63
A 1020 IVY	86	86	15	5/83	13.67
A 1020 PAL	86	86	15	5/83	17.38
A 1020 PLM	86	86	15	5/83	17.38
A 1020 TIN	86	86	15	5/83	17.38
A 1020 WHI	86	86	15	5/83	11.89
A 1022 IVY	86	86	15	5/82	9.15
A 1022 PAL	86	86	15	5/82	10.35
A 1022 PLM	86	86	15	5/82	10.35
A 1022 TIN	86	86	15	5/82	10.35
A 1022 WHI	86	86	15	5/82	6.95
A 1401 IVY	86	86	15	5/82	6.04
A 1401 PAL	86	86	15	5/82	9.14
A 1401 PLM	86	86	15	5/82	9.14
A 1401 TIN	86	86	15	5/82	9.14
A 1401 WHI	86	86	15	5/82	5.22
A 1402 IVY	86	86	15	5/82	6.19
A 1402 PAL	86	86	15	5/82	9.37
A 1402 PLM	86	86	15	5/82	9.37
A 1402 TIN	86	86	15	5/82	9.37
A 1402 WHI	86	86	15	5/82	5.38
A 1701 IVY	86	86	15	5/84	8.69
A 1701 PAL	86	86	15	5/84	12.30
A 1701 PLM	86	86	15	5/84	12.30
A 1701 TIN	86	86	15	5/84	12.30
A 1701 WHI	86	86	15	5/84	5.20
A 1702 IVY	86	86	15	5/84	13.33
A 1702 PAL	86	86	15	5/84	15.05



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
A 1702 PLM	86	86	15	5/84	15.05
A 1702 TIN	86	86	15	5/84	15.05
A 1702 WHI	86	86	15	5/84	6.86
A 1705 IVY	86	86	15	5/84	9.17
A 1705 PAL	86	86	15	5/84	11.84
A 1705 PLM	86	86	15	5/84	11.84
A 1705 TIN	86	86	15	5/84	11.84
A 1705 WHI	86	86	15	5/84	7.96
A 1706 IVY	86	86	15	5/84	21.04
A 1706 PAL	86	86	15	5/84	23.00
A 1706 PLM	86	86	15	5/84	23.00
A 1706 TIN	86	86	15	5/84	23.00
A 1706 WHI	86	86	15	5/84	18.28
A 1710 IVY	86	86	15	5/83	3.22
A 1710 PAL	86	86	15	5/83	6.04
A 1710 PLM	86	86	15	5/83	6.04
A 1710 TIN	86	86	15	5/83	6.04
A 1710 WHI	86	86	15	5/83	1.10
A 2101 IVY	86	86	15	5/81	8.87
A 2101 PAL	86	86	15	5/81	14.22
A 2101 PLM	86	86	15	5/81	14.22
A 2101 TIN	86	86	15	5/81	14.22
A 2101 WHI	86	86	15	5/81	2.53
A 2104 IVY	86	152	15	5/81	12.27
A 2104 PAL	86	152	15	5/81	26.00
A 2104 PLM	86	152	15	5/81	26.00
A 2104 TIN	86	152	15	5/81	26.00
A 2104 WHI	86	152	15	5/81	10.98
A 2105 IVY	86	152	15	5/81	10.35
A 2105 PAL	86	152	15	5/81	16.24
A 2105 PLM	86	152	15	5/81	16.24
A 2105 TIN	86	152	15	5/81	16.24
A 2105 WHI	86	152	15	5/81	4.50
A 2106 IVY	86	152	15	5/81	9.87
A 2106 PAL	86	152	15	5/81	16.63
A 2106 PLM	86	152	15	5/81	16.63
A 2106 TIN	86	152	15	5/81	16.63
A 2106 WHI	86	152	15	5/81	6.55
A 8026 BLK				5/12	7.30
A 8026 EL BLK				5/12	9.31

Order Code	Dimensions			Page	Price
	H	W	D		
A 8027 BLK				5/12	7.16
A 8027 EL BLK				5/12	8.83
A 8032 BLK				5/12	5.53
A 8060 BLK				5/12	1.46
A 8061 RED				5/12	8.08
A 8063 GRN				5/12	8.27
A 8064 DIM				5/12	38.95
A 8065 DIM				5/12	43.68
A 8066 DIM				5/12	52.45
A 8072 BLK				5/12	7.90
A 8074 BLK				5/12	8.56
A 8099 KEY				5/12	0.94
A 8100 GRD				5/13	1.32
A 8101 GRD				5/13	1.84
A 8220 PAL				5/11	7.68
A 8220 PLM				5/11	7.68
A 8220 TIN				5/11	7.68
A 8221 PAL				5/11	7.68
A 8221 PLM				5/11	7.68
A 8221 TIN				5/11	7.68
A 8222 PAL				5/11	12.80
A 8222 PLM				5/11	12.80
A 8222 TIN				5/11	12.80
A 8223 PAL				5/11	12.80
A 8223 PLM				5/11	12.80
A 8223 TIN				5/11	12.80
A 8224 PAL				5/11	23.24
A 8224 PLM				5/11	23.24
A 8224 TIN				5/11	23.24
A 8225 PAL				5/11	23.24
A 8225 PLM				5/11	23.24
A 8225 TIN				5/11	23.24
A 8226 PAL				5/11	28.64
A 8226 PLM				5/11	28.64
A 8226 TIN				5/11	28.64
A 8227 PAL				5/11	29.85
A 8227 PLM				5/11	29.85
A 8227 TIN				5/11	29.85
A 8342 BOX				5/13	6.45
A 8343 BOX				5/13	8.94



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
A 8367 BOX				5/13	1.95
A 8368 BOX				5/13	1.67
A12.30.10				4/67	19.83
A16.30.10				4/67	26.17
A26.30.10				4/67	36.38
A30.30.10				4/67	54.79
A9.30.10				4/67	16.44
AA1206					4.77
ACS50-01E-01A4-1	170	45	128	4/71	88.00
ACS50-01E-01A4-2	170	45	128	4/71	81.00
ACS50-01E-02A2-1	170	45	128	4/71	92.00
ACS50-01E-02A2-2	170	45	128	4/71	84.00
ACS50-01E-04A3-2	170	67.5	128	4/71	99.00
ACS50-01N-01A4-1	170	45	128	4/71	88.00
ACS50-01N-01A4-2	170	45	128	4/71	79.04
ACS50-01N-02A2-1	170	45	128	4/71	92.00
ACS50-01N-02A2-2	170	45	128	4/71	84.00
ACS50-01N-04A3-2	170	67.5	128	4/71	99.00
ACS50-CLIP				4/72	144.56
ACS50-IFAB-01	45	128	0.7	4/72	34.86
ACS50-POT				4/72	100.22
ACS-CHK-B3(output)	300	102	112	4/72	POA
AES20				3/52	1.83
AES25				3/52	2.18
AES32				3/52	2.18
AES40				3/52	2.43
AES50				3/52	2.82
AES63				3/52	3.20
AK1NE				2/36	53.85
ANIT10				3/51	1.15
ANIT16				3/51	1.15
ANIT2				3/51	1.15
ANIT20				3/51	1.54
ANIT25				3/51	1.65
ANIT32				3/51	1.65
ANIT4				3/51	1.15
ANIT6				3/51	1.15
ANS10				3/52	1.16
ANS16				3/52	1.16
ANS2				3/52	1.16

Order Code	Dimensions			Page	Price
	H	W	D		
ANS20				3/52	1.39
ANS25				3/52	1.65
ANS35				3/52	1.65
ANS4				3/52	1.16
ANS6				3/52	1.16
AOS100				3/51	4.32
AOS125				3/51	8.99
AOS160				3/51	9.89
AOS200				3/51	10.36
AOS80				3/51	3.91
AP 6000		600		6/94	6.75
APBS				5/85	1.22
ATBC10				3/52	3.98
ATBC16				3/52	3.98
ATBC2				3/52	3.98
ATBC20				3/52	3.98
ATBC25				3/52	3.98
ATBC32				3/52	4.27
ATBC4				3/52	3.98
ATBC40				3/52	4.27
ATBC50				3/52	4.34
ATBC6				3/52	3.98
ATBC63				3/52	4.68
ATC100				3/51	5.29
ATC100M125				3/52	8.98
ATC100M160				3/52	9.11
ATC100M200				3/52	10.29
ATC80				3/51	5.29
ATCP100				3/51	5.29
ATCP100M125				3/52	8.99
ATCP100M160				3/52	9.09
ATCP100M200				3/52	10.29
ATCP80				3/51	5.29
ATF125				3/51	9.02
ATF160				3/51	9.89
ATF200				3/51	10.36
ATF200M250				3/52	14.21
ATF200M315				3/52	15.70
ATFP125				3/51	9.07
ATFP160				3/51	9.89



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
ATFP200				3/51	10.35
ATIA10				3/51	1.85
ATIA16				3/51	1.85
ATIA2				3/51	1.85
ATIA20				3/51	2.05
ATIA25				3/51	2.18
ATIA32				3/51	2.18
ATIA32M40				3/52	2.65
ATIA32M50				3/52	2.65
ATIA32M63				3/52	3.00
ATIA4				3/51	1.85
ATIA6				3/51	1.85
ATIS35				3/51	3.47
ATIS40				3/51	3.47
ATIS50				3/51	3.47
ATIS63				3/51	3.70
ATIS63M100				3/52	5.51
ATIS63M80				3/52	5.28
ATKF250				3/51	13.07
ATKF315				3/51	14.57
ATKF315M400				3/52	20.35
ATKM250				3/51	13.07
ATKM315				3/51	14.57
ATLM710				3/52	64.03
ATLM800				3/52	75.31
ATM355				3/52	18.28
ATM400				3/52	19.40
ATMF355				3/51	18.28
ATMF400				3/51	19.40
ATMF400M500				3/52	48.87
ATMF450				3/51	28.34
ATMF500				3/51	30.37
ATMF560				3/51	31.50
ATMF630				3/51	33.26
ATS1				2/27	49.23
ATS1/R				2/27	65.54
ATS7/R				2/27	67.17
ATTM450				3/52	28.34
ATTM500				3/52	30.24
ATTM560				3/52	31.50

Order Code	Dimensions			Page	Price
	H	W	D		
ATTM630				3/52	33.26
CA5-01				4/65	2.39
CA5-10				4/65	2.39
CTR 1/100				2/31	17.88
CTR 1/150				2/31	17.88
CTR 1/200				2/31	18.89
CTR 1/250				2/31	18.89
CTR 1/80				2/31	17.88
CU124PB3	650	690	240	2/34	808.41
CU128PB3	1650	690	240	2/34	911.18
CU128PB4	1850	690	240	2/34	922.28
CU184PB3	2050	690	240	2/34	889.02
CU188PB3	2050	690	240	2/34	1055.63
CU188PB4	2050	690	240	2/34	1066.74
CU640PB3	1250	690	204	2/34	621.21
CU680PB3	1250	690	204	2/34	653.38
CU680PB4	1450	690	240	2/34	680.05
DAB11001				2/30	215.29
DAB12000				2/30	195.84
DAB13000				2/30	195.84
DAB13001				2/30	243.07
DAB13002				2/30	262.52
DB100METMOD				2/24	583.38
DB125METMOD				2/24	583.38
DB250METMOD				2/24	583.38
DBB13000				2/30	261.13
DBB23000				2/30	247.24
DCB12000				2/30	195.84
DCB13000				2/30	297.24
DCB15115				4/70	457.63
DCB15230				4/70	457.63
DCB15400				4/70	457.63
DCB22115				4/70	648.51
DCB22230				4/70	648.51
DCB22400				4/70	648.51
DCB30115				4/70	815.38
DCB30230				4/70	815.38
DCB30400				4/70	815.38
DCB4	66	45	113	4/70	148.51
DCB45115	66	100	113	4/70	997.06



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
DCB45230	66	100	113	4/70	997.06
DCB45400	66	100	113	4/70	997.06
DCB5A115	66	100	113	4/70	200.10
DCB5A230	66	100	113	4/70	200.10
DCB5A400	66	100	113	4/70	200.10
DCB7115	66	100	113	4/70	243.20
DCB7230	66	100	113	4/70	243.20
DCB7400	66	100	113	4/70	243.20
DCB75115	66	100	113	4/70	1205.30
DCB75230	66	100	113	4/70	1205.30
DCB75400	66	100	113	4/70	1205.30
DDB13000				2/30	336.14
DS271AC C10/0.1	120	17.5	68	2/22	53.67
DS271AC C16/0.1	120	17.5	68	2/22	53.67
DS271AC C20/0.1	120	17.5	68	2/22	53.67
DS271AC C25/0.1	120	17.5	68	2/22	53.67
DS271AC C32/0.1	120	17.5	68	2/22	53.67
DS271AC C6/0.1	120	17.5	68	2/22	53.67
DS271AC-B10/0.03	120	17.5	68	2/22	53.67
DS271AC-B16/0.03	120	17.5	68	2/22	53.67
DS271AC-B20/0.03	120	17.5	68	2/22	53.67
DS271AC-B25/0.03	120	17.5	68	2/22	53.67
DS271AC-B32/0.03	120	17.5	68	2/22	53.67
DS271AC-B6/0.03	120	17.5	68	2/22	53.67
DS271AC-C10/0.03	120	17.5	68	2/22	53.67
DS271AC-C16/0.03	120	17.5	68	2/22	53.67
DS271AC-C20/0.03	120	17.5	68	2/22	53.67
DS271AC-C25/0.03	120	17.5	68	2/22	53.67
DS271AC-C32/0.03	120	17.5	68	2/22	53.67
DS271AC-C6/0.03	120	17.5	68	2/22	53.67
DTS 1/1				2/27	78.55
DTS 7/1				2/27	89.62
DTS 7/2				2/27	115.25
E202/100r				2/17	15.87
E203/100r				2/23	31.41
E203/125r				2/23	45.36
E225-11B				2/25	8.46
E225-11C				2/25	8.46
E225-11D				2/25	8.46
E225-11E				2/25	8.46

Order Code	Dimensions			Page	Price
	H	W	D		
E225-11F				2/25	8.46
E225-11G				2/25	8.46
E227-11B				2/25	15.09
E227-11C				2/25	15.09
E227-11D				2/25	15.09
E227-11E				2/25	15.09
E227-11G				2/25	15.09
E229-B				2/25	7.29
E229-C				2/25	7.29
E229-D				2/25	7.29
E229-E				2/25	7.29
E229-G				2/25	7.29
ECS104C	255	155	110	2/15	32.34
ECS107C	255	210	110	2/15	34.65
ECS111C	255	260	110	2/15	57.12
ECS116C	255	365	110	2/15	65.45
ECS120C	255	440	110	2/15	82.14
EE20	90	52.5	58	2/31	133.59
EE20R	90	52.5	58	2/31	141.76
EE22	90	52.5	58	2/31	152.84
EE22R	90	52.5	58	2/31	169.19
EE22Rr	90	52.5	58	2/31	152.85
EH04.11				2/28	11.96
EH04.20				2/28	11.96
ENTSPB240	165	100	115	2/41	144.46
ENTSPB240P	165	100	115	2/41	166.68
ENTSPB415	165	100	115	2/41	233.34
ENTSPB415P	165	100	115	2/41	255.57
EPB304C25	505	400	125	2/18	98.39
EPB304PAC25	375	270	60	2/13	48.01
EPB306C25	560	400	125	2/18	112.58
EPB306PAC25	429	270	60	2/13	57.38
EPB308C25	615	400	125	2/18	127.36
EPB308PAC25	483	270	60	2/13	65.74
EPB312C25	720	400	125	2/18	155.36
EPB312PAC25	591	270	60	2/13	82.26
EPB316C25	830	400	125	2/18	221.49
EPB316PAC25	699	270	60	2/13	101.61
EPB320C25	1005	400	125	2/18	296.41
EPB320PAC25	874	270	60	2/13	157.74





Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
EPB324C25	1140	400	125	2/18	362.41
EPB324PAC25	1014	270	60	2/13	197.08
EPBCLA1-G				2/23	8.40
EPBGP1				2/23	6.42
EPBGP2				2/23	8.75
EPBKIT0-4C				2/23	13.36
EPBKIT1-T3C				2/13	21.58
EPBKIT1-T3C				2/23	21.58
EPBKIT2C				2/13	16.92
EPBKIT2C				2/23	16.92
EPBKIT3C				2/13	15.76
EPBKIT3C				2/23	15.76
EPBKIT4C				2/13	12.25
EPBKIT4C				2/23	12.25
EPBKIT5				2/23	11.85
EPBKIT6C				2/13	10.50
EPBKIT6C				2/23	10.50
ESB20.02	85	18	58	2/28	19.16
ESB20.11	85	18	58	2/28	18.30
ESB20.20	85	18	58	2/28	18.30
ESB24.04	85	36	58	2/28	26.43
ESB24.22	85	36	58	2/28	24.47
ESB24.31	85	36	58	2/28	22.21
ESB24.40	85	36	58	2/28	22.61
ESB40.40	85	54	58	2/28	39.94
ESB63.40	85	54	58	2/28	61.25
ESB-DIS				2/28	0.82
ESB-PLK 24				2/28	0.53
ESB-PLK 40/63				2/28	0.70
ESPBKIT				4/57	19.72
EX1NE				2/36	27.59
F202 AC S-63/0.3				2/26	87.52
F202 AC-100/0.03				2/17	90.59
F202 AC-100/0.03				2/26	90.59
F202 AC-100/0.1				2/17	72.56
F202 AC-100/0.1				2/26	72.56
F202 AC-100/0.3				2/17	69.40
F202 AC-100/0.3				2/26	69.40
F202 AC-16/0.01				2/26	64.12
F202 AC-25/0.03				2/26	49.12

Order Code	Dimensions			Page	Price
	H	W	D		
F202 AC-25/0.1				2/26	48.78
F202 AC-25/0.3				2/26	45.97
F202 AC-40/0.03				2/26	51.86
F202 AC-40/0.1				2/26	51.64
F202 AC-40/0.3				2/26	46.89
F202 AC-63/0.03				2/17	62.42
F202 AC-63/0.03				2/26	62.42
F202 AC-63/0.1				2/17	55.89
F202 AC-63/0.1				2/26	55.89
F202 AC-63/0.3				2/17	52.69
F202 AC-63/0.3				2/26	52.69
F202 AC-80/0.03				2/17	77.23
F202 AC-80/0.03				2/26	77.23
F202 AC-80/0.1				2/17	59.56
F202 AC-80/0.1				2/26	59.56
F202 AC-80/0.3				2/17	57.79
F202 AC-80/0.3				2/26	57.79
F202 ACS-63/0.3				2/17	87.52
F204 AC S-63/0.3				2/26	91.01
F204 AC-100/0.03				2/26	125.76
F204 AC-100/0.1				2/26	125.76
F204 AC-100/0.3				2/26	125.76
F204 AC-25/0.03				2/26	52.09
F204 AC-25/0.1				2/26	52.74
F204 AC-25/0.3				2/26	51.05
F204 AC-40/0.03				2/26	63.36
F204 AC-40/0.1				2/26	59.78
F204 AC-40/0.3				2/26	52.97
F204 AC-63/0.03				2/26	89.85
F204 AC-63/0.1				2/26	64.64
F204 AC-63/0.3				2/26	59.03
F204 AC-80/0.03				2/26	111.76
F204 AC-80/0.1				2/26	111.76
F204 AC-80/0.3				2/26	111.76
F204AC-100/0.03				2/23	125.76
F204AC-100/0.1				2/23	125.76
F204AC-100/0.3				2/23	125.76
F204AC-63/0.03				2/13	89.85
F204AC-63/0.03				2/23	89.85
F204AC-63/0.1				2/13	64.64



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
F204AC-63/0.1				2/23	64.64
F204AC-63/0.3				2/13	59.03
F204AC-63/0.3				2/23	59.03
F204ACS-63/0.3				2/13	91.01
F204ACS-63/0.3				2/23	91.01
GD 4006		400		6/94	5.90
GD 6006		600		6/94	6.75
GD 8006		800		6/94	7.37
GZ 4020		400	200	6/93	5.26
GZ 4025		400	250	6/93	5.90
GZ 6025		600	250	6/93	7.37
GZ 6030		600	300	6/93	8.23
HAPBKIT				4/57	14.96
HL100-230	240	188	153	4/65	292.87
HL100-230D	240	188	153	4/66	336.40
HL100-400	240	188	153	4/66	292.87
HL180-230	400	218	183	4/65	519.15
HL180-230D	400	218	183	4/66	639.15
HL180-400	400	218	183	4/66	519.15
HL200-230	400	218	183	4/65	666.03
HL200-230D	400	218	183	4/66	765.19
HL200-400	400	218	183	4/66	666.03
HL20-230	160	118	108	4/65	28.50
HL25-230	230	107	133	4/65	55.00
HL25-230-4	230	107	133	4/65	57.66
HL25-230D	230	107	133	4/66	77.89
HL25-400	230	107	133	4/66	55.00
HL25-400-4	230	107	133	4/66	57.66
HL25P-230	230	107	133	4/65	52.14
HL25P-230-4	230	107	133	4/65	54.81
HL25P-400	230	107	133	4/66	52.14
HL25P-400-4	230	107	133	4/66	54.81
HL45-230	230	107	133	4/65	78.55
HL45-230-4	230	107	133	4/65	81.21
HL45-230D	230	107	133	4/66	123.12
HL45-400	230	107	133	4/66	78.55
HL45-400-4	230	107	133	4/66	81.21
HL45P-230	230	107	133	4/65	75.68
HL45P-230-4	230	107	133	4/65	78.35
HL45P-400	230	107	133	4/66	75.68

Order Code	Dimensions			Page	Price
	H	W	D		
HL45P-400-4	230	107	133	4/66	78.35
HL63-230	240	188	153	4/65	216.16
HL63-230D	240	188	153	4/66	257.42
HL63-400	240	188	153	4/66	216.16
HL80-230	240	188	153	4/65	256.29
HL80-230D	240	188	153	4/66	294.35
HL80-400	240	188	153	4/66	256.29
HLA-201C				4/65	14.66
HMBS				2/12	1.11
HMGB				2/12	1.63
HMDT6+6C	226	370	123	2/10	62.71
HMDT8+8C	226	440	123	2/10	70.97
HMMS10C	226	300	123	2/10	34.36
HMMS14C	226	370	123	2/10	37.63
HMMS18C	226	440	123	2/10	48.94
HMMS4C	226	190	123	2/10	24.79
HMMS6C	226	230	123	2/10	29.29
HMRC10C	226	300	123	2/10	97.83
HMRC14C	226	370	123	2/10	102.09
HMRC18C	226	440	123	2/10	115.16
HMRC4C	226	190	123	2/10	74.09
HMRC6C	226	230	123	2/10	84.94
HMSL4+4C	226	300	123	2/10	102.21
HMSL6+6C	226	370	123	2/10	110.03
HMSL8+8C	226	440	123	2/10	121.40
HSMS11C	253	257	88	2/11	36.64
HSMS16C	253	362	88	2/11	41.48
HSMS20C	253	434	88	2/11	53.67
HSMS4C	253	150	88	2/11	27.19
HSMS7C	253	203	88	2/11	32.26
HSRC11C	253	257	88	2/11	100.58
HSRC16C	253	362	88	2/11	105.48
HSRC20C	253	434	88	2/11	119.42
HSRC4C	253	150	88	2/11	78.70
HSRC7C	253	203	88	2/11	91.71
HSSL4+4C	253	257	88	2/11	103.67
HSSL6+6C	253	362	88	2/11	111.48
HSSL8+8C	253	434	88	2/11	123.74
KA1060				6/92	83.22
KA1080				6/92	107.84



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
KA1260				6/92	113.26
KA1280				6/92	123.12
KA5040				6/92	26.59
KA6040				6/92	36.89
KA7050				6/92	45.74
KA8060				6/92	62.05
KD1060				6/92	17.72
KD1080				6/92	19.99
KD1260				6/92	19.99
KD1280				6/92	22.16
KD5040				6/92	11.87
KD6040				6/92	13.34
KD8060				6/92	16.26
MCB-01				4/74	2.18
MCB-01B				4/74	2.18
MCB-10				4/74	2.18
MCB-10B				4/74	2.18
MCCB100FP	300	300	187	3/49	352.98
MCCB100RCD	300	300	187	3/49	630.78
MCCB100TP	300	300	187	3/49	305.02
MCCB125FP	300	300	187	3/49	376.31
MCCB125RCD	300	300	187	3/49	654.14
MCCB125TP	300	300	187	3/49	307.80
MCCB160FP	300	300	187	3/49	376.31
MCCB160RCD	300	300	187	3/49	654.14
MCCB160TP	300	300	187	3/49	307.80
MCCB250FP	360	360	180	3/49	631.25
MCCB250RCD	360	360	180	3/49	1016.65
MCCB250TP	360	360	180	3/49	518.17
MCCB32FP	300	300	187	3/49	352.98
MCCB32RCD	300	300	187	3/49	630.78
MCCB32TP	300	300	187	3/49	305.02
MCCB400FP	360	360	260	3/49	820.94
MCCB400RCD	360	360	260	3/49	1523.24
MCCB400TP	360	360	260	3/49	673.16
MCCB630FP	460	460	260	3/49	1079.79
MCCB630RCD	460	460	260	3/49	1782.44
MCCB630TP	460	460	260	3/49	885.88
MCCB63FP	300	300	187	3/49	352.98
MCCB63RCD	300	300	187	3/49	630.78

Order Code	Dimensions			Page	Price
	H	W	D		
MCCB63TP	300	300	187	3/49	305.02
MI1000				2/39	61.85
MI1200				2/39	65.63
MI1400				2/39	72.27
MI1600				2/39	80.16
MI1800				2/39	86.48
MI2000				2/39	94.67
NPE-CT				2/23	10.40
OA1G01				3/50	4.36
OA1G10				3/50	4.36
OA1G10				3/50	4.36
OA1G10				3/50	4.36
OA1G10				3/50	4.36
OA1G10				3/50	4.36
OA2G11				3/50	5.95
OA3G01				3/50	4.36
OA3G01				3/50	4.36
OA3G01				3/50	4.36
OA4B1C				3/50	6.69
OBEA01				3/50	4.36
OBEA10				3/50	4.36
OD4110	85	105	57.4	2/31	183.67
OD4165	85	105	57.4	2/31	186.46
OEZNP1				3/50	7.33
OL40SDEPB	305	215	185	3/53	40.02
OMAU31PB				3/54	13.74
OMV3PB				3/54	11.35
OMVN30M				3/54	14.39
OMVN30PB				3/54	14.39
OMVN3PB				3/54	11.35
OMVN3PB				3/54	11.35
ONA2EKB	96	96	100	3/53	22.21
ONA2EPB	96	96	70	3/53	13.07
ONA2EZB	96	96	70	3/53	16.22
ONA3EPB	96	96	70	3/53	14.50
ONA3EZB	96	96	70	3/53	17.65
ONA4EPB	96	96	70	3/53	15.91
ONA4EZB	96	96	70	3/53	19.06
ONA5EPB	96	96	85	3/53	18.60
ONA5EZB	96	96	85	3/53	21.75
ONA6EPB	96	96	85	3/53	20.17



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
ONA6EZB	96	96	85	3/53	23.32
ONA8EPB	96	96	108	3/53	32.15
ONA8EZB	96	96	108	3/53	35.30
ONA9EPB	96	96	138	3/53	34.35
ONA9EZB	96	96	138	3/53	37.50
ONAU31M				3/54	17.17
ONAU31PB				3/54	15.35
ONAU32PB				3/54	20.58
ONSDEPB	305	215	185	3/53	32.15
ONU1EPB	96	96	100	3/53	12.60
ONV3M				3/54	13.55
ONV3PB				3/54	12.11
ONVN3M				3/54	13.55
ONVN3PB				3/54	12.11
ONW3EPB	96	96	100	3/53	24.42
OS100FP	400	300	160	3/48	404.48
OS100TPN	400	300	160	3/48	352.54
OS125FP	400	300	160	3/48	422.47
OS125TPN	400	300	160	3/48	381.27
OS160FP	500	360	160	3/48	483.32
OS160TPN	500	360	160	3/48	409.00
OS200FP	600	400	260	3/48	604.83
OS200TPN	600	400	260	3/48	515.87
OS20FP	300	240	160	3/48	105.34
OS20TPN	300	240	160	3/48	93.89
OS315FP	600	400	260	3/48	734.48
OS315TPN	600	400	260	3/48	614.16
OS32FP	300	240	160	3/48	131.79
OS32TPN	300	240	160	3/48	123.07
OS400FP	600	400	260	3/48	1082.56
OS400TPN	600	400	260	3/48	977.63
OS630FP	800	600	300	3/48	1624.03
OS630TPN	800	600	300	3/48	1436.43
OS63FP	400	300	160	3/48	220.46
OS63TPN	400	300	160	3/48	208.07
OS800FP	800	600	300	3/48	1912.97
OS800TPN	800	600	300	3/48	1685.73
OSZ4				3/50	2.78
OT1000FPC	800	600	300	3/47	2580.91
OT1000TPNC	800	600	300	3/47	2357.34

Order Code	Dimensions			Page	Price
	H	W	D		
OT100FP	400	300	160	3/45	220.45
OT100FPC	300	240	160	3/47	334.90
OT100FPSSB	300	300	160	3/46	266.75
OT100TPN	400	300	160	3/45	210.52
OT100TPNC	300	240	160	3/47	301.58
OT100TPNSSB	300	300	160	3/46	256.05
OT1250FPC	800	600	300	3/47	3694.28
OT1250TPNC	800	600	300	3/47	3067.46
OT125FP	400	300	160	3/45	232.42
OT125FPC	300	240	160	3/47	342.79
OT125FPSSB	300	300	160	3/46	299.52
OT125TPN	400	300	160	3/45	225.73
OT125TPNC	300	240	160	3/47	310.35
OT125TPNSSB	300	300	160	3/46	281.73
OT1600FPC	800	600	300	3/47	4404.39
OT1600TPNC	800	600	300	3/47	3602.24
OT160FP	500	360	160	3/45	360.22
OT160FPSSB	300	300	160	3/46	431.93
OT160TPN	500	360	160	3/45	345.98
OT160TPNSSB	300	300	160	3/46	392.89
OT200FP	500	360	160	3/45	400.87
OT200FPC	300	240	160	3/47	834.64
OT200FPSSB	360	360	160	3/46	487.98
OT200TPN	500	360	160	3/45	378.59
OT200TPNC	300	240	160	3/47	773.35
OT200TPNSSB	360	360	160	3/46	424.41
OT20FP	160	160	120	3/45	73.80
OT20FPC	300	240	160	3/47	201.35
OT20FPSSB	160	160	120	3/46	147.25
OT20TPN	160	160	120	3/45	67.61
OT20TPNC	300	240	160	3/47	191.71
OT20TPNSSB	160	160	120	3/46	139.48
OT315FP	500	360	160	3/45	466.20
OT315FPC	800	600	300	3/47	974.94
OT315FPSSB	360	360	160	3/46	522.94
OT315TPN	500	360	160	3/45	434.22
OT315TPNC	800	600	300	3/47	882.88
OT315TPNSSB	360	360	160	3/46	450.28
OT32FP	160	160	120	3/45	88.14
OT32FPC	300	240	160	3/47	206.63



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
OT32FPSSB	160	160	120	3/46	147.15
OT32TPN	160	160	120	3/45	82.34
OT32TPNC	300	240	160	3/47	195.66
OT32TPNSSB	160	160	120	3/46	140.66
OT400FP	600	400	200	3/45	657.01
OT400FPC	800	600	300	3/47	1147.50
OT400FPSSB	400	400	200	3/46	651.75
OT400TPN	600	400	200	3/45	618.72
OT400TPNC	800	600	300	3/47	1046.71
OT400TPNSSB	400	400	200	3/46	607.74
OT630FP	600	400	200	3/45	978.55
OT630FPC	800	600	300	3/47	1467.49
OT630FPSSB	500	500	350	3/46	963.96
OT630TPN	600	400	200	3/45	931.42
OT630TPNC	800	600	300	3/47	1314.21
OT630TPNSSB	500	500	350	3/46	914.86
OT63FP	300	240	120	3/45	141.93
OT63FPC	300	240	160	3/47	242.14
OT63FPSSB	200	240	120	3/46	178.53
OT63TPN	300	240	120	3/45	134.07
OT63TPNC	300	240	160	3/47	226.79
OT63TPNSSB	200	240	120	3/46	168.96
OT800FP	600	400	200	3/45	1269.64
OT800FPC	800	600	300	3/47	1734.90
OT800FPSSB	500	500	350	3/46	1156.67
OT800TPN	600	400	200	3/45	1200.20
OT800TPNC	800	600	300	3/47	1555.16
OT800TPNSSB	500	500	350	3/46	1071.36
OTC4-M25	96	96	108	3/53	7.18
OTP125BA3U	400	200	140	3/44	130.72
OTP125BA4U	400	200	140	3/44	150.91
OTP125BA6U	400	200	140	3/44	237.66
OTP16BA3M	120	85	60	3/44	16.41
OTP16BA4M	150	130	60	3/44	22.09
OTP16BA6M	150	130	85	3/44	48.71
OTP25BA3M	150	130	60	3/44	21.15
OTP25BA4M	150	130	60	3/44	24.30
OTP25BA6M	150	130	85	3/44	51.99
OTP32BA3M	150	130	60	3/44	22.94
OTP32BA4M	150	130	60	3/44	26.15

Order Code	Dimensions			Page	Price
	H	W	D		
OTP32BA6M	150	130	85	3/44	55.37
OTP45BA3M	200	145	90	3/44	31.86
OTP45BA4M	200	145	90	3/44	36.84
OTP45BA6M	200	145	90	3/44	70.12
OTP63BA3M	200	145	90	3/44	40.40
OTP63BA4M	200	145	90	3/44	47.53
OTP63BA6M	200	145	90	3/44	83.19
OTP80BA3U	400	200	140	3/44	73.09
OTP80BA4U	400	200	140	3/44	101.31
OTP80BA6U	400	200	140	3/44	176.47
OVR15275C				2/28	37.00
OVR1N15275				2/28	81.67
OVR1N15275P				2/28	81.30
OVR1N40275				2/28	96.76
OVR1N40275P				2/28	110.23
OVR3N15275				2/28	157.02
OVR3N15275P				2/28	169.53
OVR3N40275				2/28	212.90
OVR3N40275P				2/28	221.34
OVR40275C				2/28	40.00
OVR65NC				2/28	50.41
OZXK1				3/50	24.17
OZXK1				3/50	24.17
OZXK12				3/50	24.17
P6X6DC				2/37	33.13
P6X6S6				2/37	47.33
P6X6T3				2/37	45.76
P6X6T5				2/37	47.34
P6X6T5				2/37	47.34
PB250METMOD	350	690	240	2/38	611.16
PB250METMOD204	350	690	204	2/38	611.16
PB400METMOD	350	690	240	2/38	611.16
PB400METMOD204	350	690	205	2/38	611.16
PB630METMOD	390	690	240	2/38	611.16
PB630METMOD204	390	690	206	2/38	611.16
PB800METMOD	390	690	240	2/38	611.16
PB800METMOD204	390	690	207	2/38	611.16
PBC11-400	400	200	142	4/69	597.27
PBC1-230-1P	400	200	142	4/69	386.93
PBC15-400	400	200	142	4/69	649.44



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
PBC2-230-1P	400	180	190	4/69	429.42
PBC22-400	260	460	155	4/69	837.34
PBC30-400	260	460	155	4/69	1106.25
PBC3-400	310	200	142	4/69	386.93
PBC37-400	400	450	166	4/69	1103.66
PBC45-400	400	450	166	4/69	1698.33
PBC5-400	308	180	190	4/69	429.42
PBC55-400	500	800	253	4/69	2030.20
PBC7-400	400	180	190	4/69	473.93
PBC75-400	500	800	253	4/69	2291.41
PBM11-400-3	400	180	190	4/69	711.59
PBM11-400-5	400	180	190	4/69	731.95
PBM15-400-3	400	180	190	4/69	779.33
PBM15-400-5	400	180	190	4/69	876.75
PBM22-400-3	260	460	175	4/69	967.68
PBM22-400-5	260	460	175	4/69	1130.42
PBM30-400-3	260	460	175	4/69	1390.56
PBM30-400-5	260	460	175	4/69	1564.38
PBM5-400-3	308	180	190	4/69	567.74
PBM5-400-5	308	180	190	4/69	603.99
PBM7-400-3	400	180	190	4/69	595.15
PBM7-400-5	400	180	190	4/69	631.38
PBP11-400	400	180	190	4/68	557.02
PBP1-230-1P				4/68	397.31
PBP15-400	400	180	190	4/68	629.87
PBP2-230-1P				4/68	434.97
PBP22-400	260	460	175	4/68	849.17
PBP30-400	260	460	175	4/68	1121.84
PBP3-400	308	180	190	4/68	397.31
PBP37-400	400	450	166	4/68	1386.70
PBP45-400	400	450	166	4/68	1791.82
PBP5-400	308	180	190	4/68	434.97
PBP55-400	500	800	253	4/68	2321.57
PBP7-400	400	180	190	4/68	479.12
PBP75-400	500	800	253	4/68	2461.79
PBPS11-400	400	200	142	4/68	566.11
PBPS1-230-1P				4/68	405.11
PBPS15-400	400	200	142	4/68	687.19
PBPS2-230-1P				4/68	443.44
PBPS22-400	260	460	155	4/68	1038.39

Order Code	Dimensions			Page	Price
	H	W	D		
PBPS3-400	310	200	142	4/68	405.11
PBPS5-400	310	200	142	4/68	443.44
PBPS7-400	400	200	142	4/68	488.21
PBPSY11-400	260	400	155	4/68	702.12
PBPSY15-400	260	400	155	4/68	763.47
PBPSY22-400	260	400	155	4/68	1036.14
PBPSY30-400	400	450	166	4/68	1186.11
PBPSY37-400	400	450	166	4/68	1516.03
PBPSY5-400	400	200	142	4/68	628.43
PBPSY7-400	400	200	142	4/68	655.57
PC1002				2/39	65.33
PC1202				2/39	83.31
PC1402				2/39	85.52
PC1602				2/39	90.24
PC1606	185	600		6/94	13.33
PC1802				2/39	90.24
PC1806	185	800		6/94	14.73
PC2002				2/39	89.94
PC2606	185	600		6/94	18.51
PC2806	185	800		6/94	20.68
PF1060	1000	600		6/94	40.53
PF1080	1000	800		6/94	51.70
PF1260	1200	600		6/94	58.97
PF1280	1200	800		6/94	56.80
PF3020	300	200		6/94	11.87
PF3030	300	300		6/94	11.87
PF3040	300	400		6/94	11.87
PF4030	400	300		6/94	12.60
PF4040	400	400		6/94	12.60
PF4060	400	600		6/94	12.60
PF5030	500	300		6/94	12.60
PF5040	500	400		6/94	13.33
PF6040	600	400		6/94	17.72
PF6060	600	600		6/94	22.94
PF7050	700	500		6/94	25.12
PF8060	800	600		6/94	32.45
PF8080	800	800		6/94	37.56
PLPBKIT				4/57	13.60
PLT11L1/L3P				2/36	27.50
PLT11L2/P				2/36	26.51





Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
PLT13P				2/36	58.98
PLT33P				2/36	65.95
PM 1414	185	400		6/94	14.08
PM 1625	185	600		6/94	14.73
PM 1836	185	800		6/94	18.51
PS 1/19/30				2/12	6.08
PS 2476	185	400		6/94	16.24
PS 2676	185	600		6/94	17.72
PS 2876	185	800		6/94	19.20
PS-END 0				2/12	1.65
PV1000	1000	690		2/39	113.30
PV1200	1200	690		2/39	120.56
PV1400	1400	690		2/39	167.25
PV1600	1600	690		2/39	177.67
PV1800	1800	690		2/39	190.30
PV2000	2000	690		2/39	204.18
RC1000				2/39	97.90
RC2000				2/39	85.80
S201B10				2/10	6.94
S201B13				2/10	6.94
S201B16				2/10	6.94
S201B20				2/10	6.94
S201B25				2/10	6.94
S201B32				2/10	6.94
S201B40				2/10	6.94
S201B50				2/10	7.18
S201B6				2/10	6.95
S201B63				2/10	7.53
S201C10				2/10	6.94
S201C13				2/10	6.94
S201C16				2/10	6.94
S201C20				2/10	6.94
S201C25				2/10	6.94
S201C32				2/10	6.94
S201C40				2/10	6.94
S201C50				2/10	7.18
S201C6				2/10	6.95
S201C63				2/10	7.53
S201D0.5				2/16	9.69
S201D1				2/16	9.69

Order Code	Dimensions			Page	Price
	H	W	D		
S201D10				2/16	8.39
S201D13				2/16	8.39
S201D16				2/16	8.39
S201D2				2/16	9.60
S201D20				2/16	8.39
S201D25				2/16	8.39
S201D3				2/16	9.60
S201D32				2/16	8.39
S201D4				2/16	9.42
S201D40				2/16	9.15
S201D50				2/16	9.60
S201D6				2/16	9.15
S201D63				2/16	9.69
S201MB10				2/15	7.79
S201MB13				2/15	7.79
S201MB16				2/15	7.79
S201MB20				2/15	7.79
S201MB25				2/15	7.79
S201MB32				2/15	7.79
S201MB40				2/15	8.50
S201MB50				2/15	8.92
S201MB6				2/15	8.50
S201MB63				2/15	9.04
S201MC10				2/16	7.79
S201MC13				2/16	7.79
S201MC16				2/16	7.79
S201MC20				2/16	7.79
S201MC25				2/16	7.79
S201MC32				2/16	7.79
S201MC40				2/16	8.50
S201MC50				2/16	8.92
S201MC6				2/16	8.50
S201MC63				2/16	9.04
S202D0.5				2/21	27.73
S202D10				2/21	23.99
S202D13				2/21	23.99
S202D16				2/21	23.99
S202D20				2/21	23.99
S202D25				2/21	23.99
S202D3				2/21	27.47



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
S202D32				2/21	23.99
S202D4				2/21	26.93
S202D40				2/21	26.16
S202D50				2/21	27.47
S202D6				2/21	26.16
S202D63				2/21	27.73
S202MB10				2/19	22.40
S202MB13				2/19	22.40
S202MB16				2/19	22.40
S202MB20				2/19	22.40
S202MB25				2/19	22.40
S202MB32				2/19	22.40
S202MB40				2/19	24.45
S202MB50				2/19	25.62
S202MB6				2/19	24.38
S202MB63				2/19	25.84
S202MC0.5				2/20	25.84
S202MC1				2/20	25.84
S202MC10				2/20	22.40
S202MC13				2/20	22.40
S202MC16				2/20	22.40
S202MC2				2/20	25.62
S202MC20				2/20	22.40
S202MC25				2/20	22.40
S202MC3				2/20	25.62
S202MC32				2/20	22.40
S202MC4				2/20	25.15
S202MC40				2/20	24.45
S202MC50				2/20	25.62
S202MC6				2/20	24.38
S202MC63				2/20	25.84
S203D0.5				2/21	41.12
S203D1				2/21	41.12
S203D10				2/21	36.37
S203D13				2/21	36.37
S203D16				2/21	36.37
S203D2				2/21	40.75
S203D20				2/21	36.37
S203D25				2/21	36.37
S203D3				2/21	40.75

Order Code	Dimensions			Page	Price
	H	W	D		
S203D32				2/21	36.37
S203D4				2/21	39.97
S203D40				2/21	38.80
S203D50				2/21	40.75
S203D6				2/21	38.80
S203D63				2/21	41.12
S203MB10				2/19	33.96
S203MB13				2/19	33.96
S203MB16				2/19	33.96
S203MB20				2/19	33.96
S203MB25				2/19	33.96
S203MB32				2/19	33.96
S203MB40				2/19	36.22
S203MB50				2/19	38.03
S203MB6				2/19	36.22
S203MB63				2/19	38.39
S203MC0.5				2/20	38.39
S203MC1				2/20	38.39
S203MC10				2/20	33.96
S203MC13				2/20	33.96
S203MC16				2/20	33.96
S203MC2				2/20	38.03
S203MC20				2/20	33.96
S203MC25				2/20	33.96
S203MC3				2/20	38.03
S203MC32				2/20	33.96
S203MC4				2/20	37.34
S203MC40				2/20	36.22
S203MC50				2/20	38.03
S203MC6				2/20	36.22
S203MC63				2/20	38.39
S315KN	125	100	107	3/43	24.16
S37K5N	125	100	107	3/43	18.39
S415KN	125	100	107	3/43	27.01
S415KNSS	180	171	150	3/43	129.96
S418KN	170	140	108	3/43	42.79
S426KN	170	140	108	3/43	60.29
S426KNSS	240	196	150	3/43	155.67
S47K5N	125	100	107	3/43	21.25
S47K5NSS	180	171	150	3/43	121.40



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Price
	H	W	D		
SA1				2/12	2.09
SA-10				3/43	5.45
SA-11				3/43	6.80
SA2				2/12	5.78
SA-21				3/43	8.15
SACL21(input)	76	63	62	4/72	POA
SACL22(input)	92	76	63	4/72	POA
SB2G	260	260	125	3/50	66.67
SB3G	400	400	165	3/50	93.34
SB4G	500	500	155	3/50	108.90
SB5G	160	160	120	3/50	53.34
SH630				2/36	12.26
SR10625	1000	600	250	6/92	149.21
SR10625V	1000	600	250	6/92	176.79
SR10630	1000	600	300	6/92	163.98
SR10630V	1000	600	300	6/92	191.56
SR10830	1000	800	300	6/92	188.59
SR10830V	1000	800	300	6/92	211.74
SR12630	1200	600	300	6/92	194.02
SR12630V	1200	600	300	6/92	216.67
SR12830	1200	800	300	6/92	208.29
SR12830V	1200	800	300	6/92	231.44
SR3215	300	200	150	6/91	32.46
SR3315	300	300	150	6/91	35.40
SR3415	300	400	150	6/91	40.53
SR4315	400	300	150	6/91	39.88
SR4320	400	300	200	6/91	42.01
SR4420	400	400	200	6/91	45.74
SR4620	400	600	200	6/91	66.48
SR5320	500	300	200	6/92	49.24
SR5420	500	400	200	6/92	54.65
SR5420V	500	400	200	6/92	73.37
SR5425	500	400	250	6/92	57.62
SR5425V	500	400	250	6/92	76.82
SR6420	600	400	200	6/92	66.48
SR6420V	600	400	200	6/92	88.14
SR6425	600	400	250	6/92	70.91
SR6425V	600	400	250	6/92	93.07
SR6625	600	600	250	6/92	85.19
SR7520	700	500	200	6/92	85.19

Order Code	Dimensions			Page	Price
	H	W	D		
SR7520V	700	500	200	6/92	108.33
SR7525	700	500	250	6/92	90.12
SR7525V	700	500	250	6/92	116.71
SR8625	800	600	250	6/92	116.22
SR8625V	800	600	250	6/92	138.37
SR8630	800	600	300	6/92	123.60
SR8630V	800	600	300	6/92	156.10
SR8830	800	800	300	6/92	134.35
SZ-BP1				2/12	1.70
SZ-BP2				2/12	0.26
SZ-BSK				2/23	1.12
SZ-ESK				2/23	2.63
TA25DU0.16				4/67	20.77
TA25DU0.25				4/67	20.77
TA25DU0.4				4/67	20.77
TA25DU0.63				4/67	20.77
TA25DU1.0				4/67	20.77
TA25DU1.4				4/67	20.77
TA25DU1.8				4/67	20.77
TA25DU11				4/67	20.77
TA25DU14				4/67	21.86
TA25DU19				4/67	25.03
TA25DU2.4				4/67	20.77
TA25DU25				4/67	27.81
TA25DU3.1				4/67	20.77
TA25DU32				4/67	36.60
TA25DU4.0				4/67	20.77
TA25DU5.0				4/67	20.77
TA25DU6.5				4/67	20.77
TA25DU8.5				4/67	20.77
TA42DU32				4/67	36.66
TM10/12				2/27	14.70
TM15/24				2/27	20.72
TM30/24				2/27	25.28
TWS-1	81	36	58.5	2/27	94.04
VC1000				2/39	128.75
VC1200				2/39	133.18
VC1400				2/39	129.39
VC1600				2/39	140.74
VC1800				2/39	149.58



Dimensions / Alpha Numeric

Order Code	Dimensions			Page	Discount Band	Price
	H	W	D			
VC2000					2/39	154.63
XUK001032					6/95	114.39
ZA 4020		400	200		6/93	34.76
ZA 4025		400	250		6/93	35.40
ZA 6025		600	250		6/93	43.48
ZA 6030		600	300		6/93	46.43
ZA16					4/67	9.89
ZA40					4/67	13.68
ZL1000					2/39	23.36
ZL1001					2/39	19.88
ZL2001					2/39	16.09
ZL3000					2/39	20.20

Terms & Conditions



1. GENERAL

1.1. Whenever ABB Limited ("ABB") has referred to Orgalime S 2000 in a quotation or other type of offer or in an order acknowledgement, Orgalime S 2000 and this Addendum shall apply to the resulting contract between ABB and the Purchaser. If the Purchaser refers to other terms and conditions in the Purchaser's previous or subsequent communications with ABB, such other terms and conditions shall apply only to the extent ABB expressly agrees thereto in writing.

1.2. The Purchaser represents that it has access to the Orgalime S 2000 terms and conditions.

1.3. Should ABB accept other terms and conditions than the ones contained in Orgalime S 2000 and this Addendum, ABB shall not be bound by the price, delivery terms, warranties and other terms quoted by ABB, unless the ABB quotation expressly refers to those other terms and conditions.

1.4. In the event of any contradictions or discrepancies between this Addendum and Orgalime S 2000, this Addendum shall prevail.

2. DEFINITIONS

In Orgalime S 2000 and this Addendum,

(a) "Orgalime S 2000" shall mean Orgalime's General Conditions for the Supply of Mechanical, Electrical and Electronic Products, August 2000 edition or the latest edition published thereafter;

(b) "Product" shall include services to be provided by ABB in relation to the Product;

(c) "Purchaser" shall mean the other party to the contract; and

(d) "Supplier" shall mean ABB.

3. AMENDMENTS

3.1. Standard Products

3.1.1. The Product shall be supplied in its standard version together with ABB's relevant standard documentation and instruction manuals as appropriate. Alternative finishes, colours and special packing may be supplied at extra charge, as may additional documentation.

3.1.2. The Product is not warranted to be fit for any particular purpose, unless and to the extent such particular purpose has been expressly specified and warranted by ABB in writing.

3.2. Payment Terms

3.2.1. Payment shall be made by the Purchaser no later than thirty (30) days from the date the relevant invoice was issued, unless otherwise stated on the invoice. Should part of an invoice be disputed by the Purchaser, the Purchaser shall nevertheless pay the undisputed amount on the due payment date. Payment may be made via BACS.

3.2.2. Payment shall be made in the currency in which the purchase price was quoted by ABB.

3.2.3. Should

(a) the Purchaser's payments be overdue by more than 14 calendar days;

(b) proceedings be commenced to wind up the Purchaser (except for the purpose of solvent amalgamation or reconstruction);

(c) any composition or arrangement with the Purchaser's creditors be made; or

(d) the Purchaser be put under administration, or if a receiver is appointed,

ABB shall be entitled (without incurring any liability therefor) to terminate the contract by notice in writing, and thereupon to recover any loss or damage ABB has suffered as a result of such termination, except that the compensation paid towards such loss or damage shall not exceed the purchase price.

3.3. VAT

The purchase price is strictly net and exclusive of VAT and similar.

3.4. Retention of Title

3.4.1. The Product shall remain the property of the Supplier until paid for in full.

3.4.2. Until title in the Product has passed to the Purchaser, the Purchaser shall keep the Product and any part thereof in the Purchaser's possession clearly marked or otherwise identified as being ABB's, and store them separately from the Purchaser's own plant. ABB shall be entitled at any time during normal business hours to enter the Purchaser's premises in order to inspect the Product and ensure that it is so marked or clearly identified.

3.4.3. Should the contract be terminated by ABB for any reason before title in the Product has passed to the Purchaser, ABB shall be entitled at any time during normal business hours to enter the Purchaser's premises in order to recover the Product. ABB reserves the right to dispose of any Product so recovered.

3.5. Export restrictions and non-authorised use

3.5.1. Any supply of technology under the contract shall be subject to any laws and other restrictions on the export, re-export or import of any technology licensed under the contract as may be imposed from time to time by the UK or United States Governments or their agencies. The Purchaser shall not knowingly export, re-export or import, directly or indirectly, any such technology licensed from or provided by ABB to any country for which the UK or United States Governments or any their agencies require an export licence or other Government approval at the time of such export, without first obtaining such licence or approval. The Purchaser shall require that all third parties receiving such technology from the Purchaser comply with this requirement.

ABB shall assist the Purchaser in every reasonable way in the investigation and clarification of any possible export or import licence requirements and in the obtaining of such licences at the Purchaser's cost.

3.5.2. The performance by either of the parties of an obligation under the contract, which performance requires an export or import licence or other government approval, and any other obligation affected shall, to the extent it is necessary, automatically be suspended until such licence or approval as mentioned in sub clause 3.5.1 is given. If such licence is not granted within a reasonable time or is revoked by the appropriate authorities, ABB shall be entitled to terminate the contract, and the Purchaser shall compensate ABB for any loss or damage as a result of such termination.

3.5.3. Unless expressly agreed in writing by ABB, the Product is provided on strict condition that:

(a) the Product is solely for civil use;

(b) the Product is not to be supplied to any country whether directly or indirectly or for any application where such supply or application is prohibited by any law or regulation binding or effective in that country, in the United Kingdom or the country of manufacture; and

(c) the Product will not in any way be installed, used or applied in or in connection with the operation of any nuclear facilities such as but not limited to nuclear power plants, nuclear fuel manufacturing plants, uranium enrichment plants, spent nuclear fuel stores or research reactors.

3.5.4. Whenever ABB so requests, the Purchaser shall provide ABB with an end user certificate, which shall be subject to ABB's reasonable approval and signed by the Purchaser's authorised representative, confirming that the end user shall comply with subclause 3.5.3, items (a) - (c). Until such time as ABB has received such end user certificate, ABB shall be entitled to suspend the performance under the contract.

3.5.5. The end user certificate referred to in subclause 3.5.4 shall form part of the contract and any breach by the Purchaser or any for whom the Purchaser is liable (which shall, without limitation, include the end-user) of any of the provisions set out in subclause 3.5.3, items (a) - (c), shall be deemed a fundamental breach of contract by the Purchaser, and shall entitle ABB to terminate the contract forthwith by giving notice to the Purchaser.

3.5.6. In the event of such termination as is mentioned in subclause 3.5.5, the Purchaser shall compensate (without limitation) ABB for any damage and losses sustained as a result of the breach.

3.5.7. The Purchaser shall keep ABB, its officers, directors, employees, agents and advisers indemnified against any claims and liabilities arising out of any breach by the Purchaser or any for whom the Purchaser is liable (which shall, without limitation, include the end user) of any of the provisions set out in this sub-clause 3.5.

3.6. Limitation of liability

3.6.1. To the maximum extent permitted by applicable law, and notwithstanding anything to the contrary in the contract or otherwise, neither party shall be liable to the other for any indirect, special, incidental or consequential damages such as, but not limited to, loss of revenue, loss of business, loss of use, interruption of business, loss of operation time, costs of capital and cost in connection with interruption of operation.

3.6.2. To the maximum extent permitted by applicable law, ABB limits its aggregate liability under the contract for direct damage to an amount equivalent to the price.

3.6.3. The Purchaser acknowledges that the contents of sub clauses 3.6.1 and 3.6.2 have especially been brought to the Purchaser's attention, and that said subclauses have been duly negotiated between the parties.

3.7. Indemnification

If Products are to be manufactured or any process is to be applied to Products by ABB in accordance with a specification submitted by the Purchaser, the Purchaser shall indemnify ABB against all losses, damages, costs, expenses and claims suffered or incurred by ABB in connection with infringement of any intellectual property rights of any third party resulting from ABB's use of the Purchaser's specification.

3.8. Limitation period

Subject to law as regards personal injury and death, the Purchaser shall have no claim against ABB, in contract or in tort, in relation to anything performed or delivered under the Contract (including claims for defective Products, services or goods), unless ABB has been notified in writing of such claim within twenty four (24) months of delivery.

3.9. Exclusion of third party rights

Pursuant to section 1(2)(a) of the contracts (Right of Third Parties) Act 1999 (the "Act"), the parties intend that no terms of the contract may be enforced by a Third Party (as the term "Third Party" is defined in the Act).

3.10. Governing law

The contract shall in all respects be governed by and construed in accordance with English substantive law. The parties agree that the United Nations Convention on contracts for the International Sale of Goods shall not apply to the contract (even if the United Kingdom or any part thereof should accede to the said convention).

3.11. Miscellaneous

The contract constitutes the complete and full understanding between the parties thereto with respect to the subject matter of the contract and supersedes all previous negotiations, representations, agreements, commitments and writing in respect thereof. Neither party shall be bound by any terms conditions, definitions, warranties, understandings or representations with respect to such subject matter other than as expressly provided in the contract or as duly set forth on or subsequent to the effective date thereof in writing.

3.12. Min Order

£100.00 nett carriage paid, orders below £100.00 incur £25.00 surcharge.



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