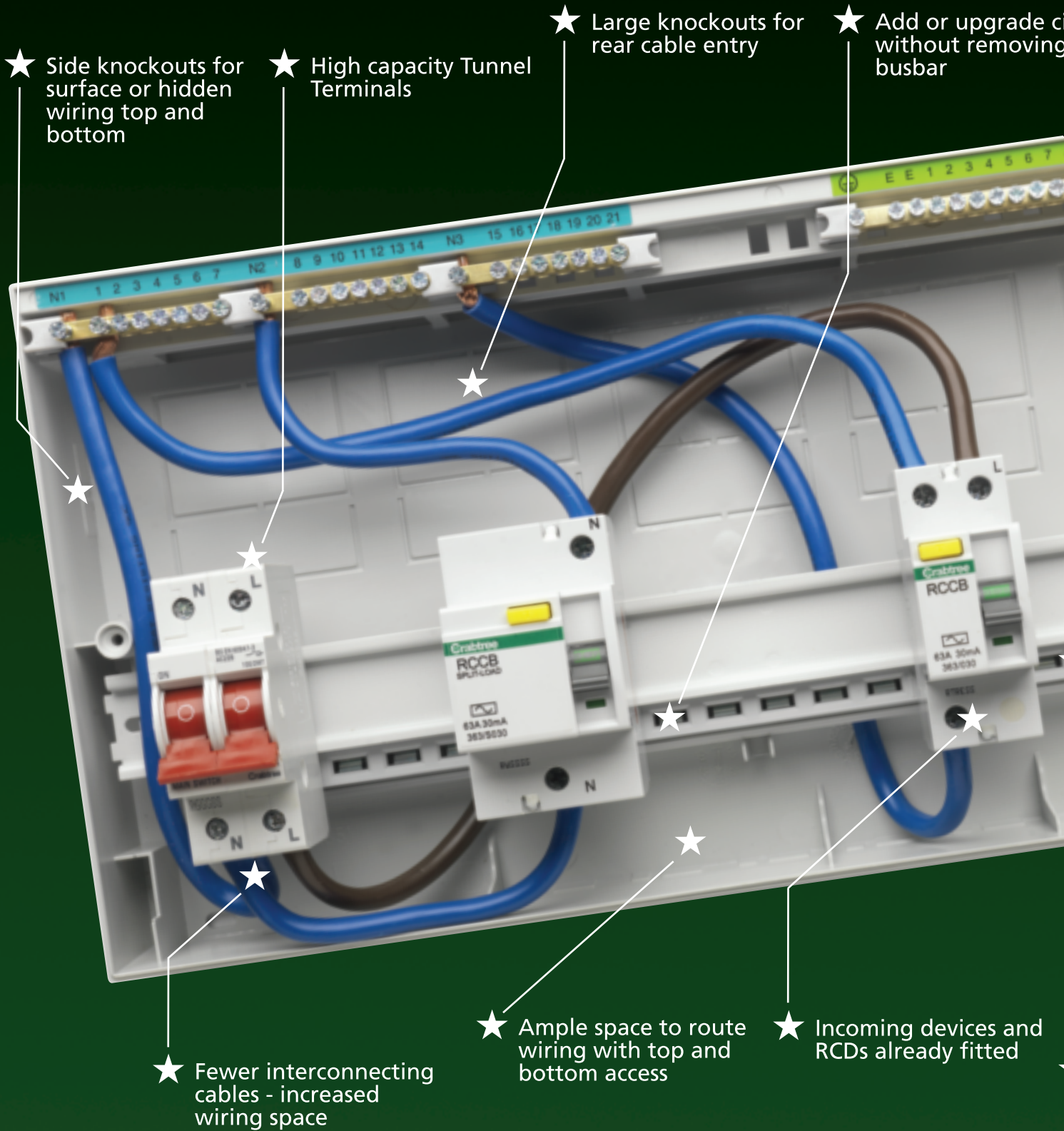




Starbreaker  
Domestic  
Circuit Protection  
2012



★ Side knockouts for surface or hidden wiring top and bottom

★ High capacity Tunnel Terminals

★ Large knockouts for rear cable entry

★ Add or upgrade circuit breakers without removing busbar

★ Fewer interconnecting cables - increased wiring space

★ Ample space to route wiring with top and bottom access

★ Incoming devices and RCDs already fitted

# STARBREAKER Consumer Units

# All in just one Box

Starbreaker is a complete range of ready to install consumer units offering a multiple choice of factory assembled configurations that will meet all the needs of 17th Edition wiring regulations installers.

Specifiers can appreciate that this quality assured and manufactured product gives an extensive choice of Starbreaker plug in 30mA RCBOs and MCB circuit protection devices utilising Siemens technology. These are all available with type 'B' or 'C' protection curves, and 7 different current ratings from 6A to 50A.

★ Plug in MCB & RCBOs instant guaranteed connections

circuits



★ Full DIN Rail accepts DIN modules, Timers, Bell Transformers, Contactors & Meters in any available way

★ Insulated Busbar - Greater Personal Protection

## Safety - inbuilt

- Insulated busbar provides greater protection against accidental direct contact during maintenance and testing where live working is unavoidable
- No live or exposed busbar connection 'prongs'
- Permanent factory fitted insulated shrouding
- Consistent level of safety assured in all designs
- Fewer screw connections to be made by hand
- No need to cut/adjust busbars to add busbar shrouding

## Swiftly - installed

- Plug in instant connections speed up installation
- Factory guaranteed quality assured busbar connections
- 25% lower risk as fewer connections are made by hand
- No need to cut busbars or adjust

## Reliability - assured

- All 17th Edition designs are available: Main Switch, High Integrity, Split Load, Dual RCD
- Units are supplied complete (Main Switch, RCDs busbars assembled in position)
- Ready to be installed by the Electrician

## Flexibility - inherent

- DIN devices Timers, Bell Transformers, Contactors & Meters can be fitted in any position - no need to cut or adjust busbars to assemble units in place
- Removable 'plug in' busbar assembly allows for onsite reconfiguration to meet any 17th edition designs (with addition of RCDs or RCBOs)

..... Easier ..... Faster ..... Safer .....



410/2B

**MAIN SWITCH UNITS**

MS Rating	Total MCB/RCBO Ways	Main Switch	Insulated	Metal
40A	2	2	<b>402/2B</b>	<b>802/2B</b>
63A	2	2	<b>402/26B</b>	<b>802/26B</b>
100A	4	4	<b>404/2B</b>	<b>804/2B</b>
100A	7	7	<b>407/2B</b>	<b>807/2B</b>
100A	10	10	<b>410/2B</b>	<b>810/2B</b>
100A	13	13	<b>413/2B</b>	<b>813/2B</b>
100A	18	18	<b>418/2B</b>	<b>818/2B</b>

RCBOs are not recommended for use within 402/802 units.



410/2563B

**SPLIT LOAD UNITS 100A SWITCH 63A 30mA RCCB**

MS Rating	Total Ways	Main Switch	RCCB	Insulated	Metal
100A	4	2	2	<b>404/2263B</b>	<b>804/2263B</b>
100A	7	2	5	<b>407/2263B</b>	<b>807/2263B</b>
100A	7	3	4	<b>407/2363B</b>	<b>807/2363B</b>
100A	7	4	3	<b>407/2463B</b>	<b>807/2463B</b>
100A	7	5	2	<b>407/2563B</b>	<b>807/2563B</b>
100A	10	3	7	<b>410/2363B</b>	<b>810/2363B</b>
100A	10	4	6	<b>410/2463B</b>	<b>810/2463B</b>
100A	10	5	5	<b>410/2563B</b>	<b>810/2563B</b>
100A	10	6	4	<b>410/2663B</b>	<b>810/2663B</b>
100A	10	7	3	<b>410/2763B</b>	<b>810/2763B</b>
100A	15	5	10	<b>415/2563B</b>	<b>815/2563B</b>
100A	15	6	9	<b>415/2663B</b>	<b>815/2663B</b>
100A	15	7	8	<b>415/2763B</b>	<b>815/2763B</b>
100A	15	8	7	<b>415/2863B</b>	<b>815/2863B</b>
100A	15	9	6	<b>415/2963B</b>	<b>815/2963B</b>
100A	15	10	5	<b>415/2163B</b>	<b>815/2163B</b>

Both MCBs and RCBOs may be included for final circuit positions that are not protected by resident RCCBs.



415/2883B

**SPLIT LOAD UNITS 100A SWITCH 80A 30mA RCCB**

MS Rating	Total Ways	Main Switch	RCCB	Insulated	Metal
100A	7	2	5	<b>407/2283B</b>	<b>807/2283B</b>
100A	7	3	4	<b>407/2383B</b>	<b>807/2383B</b>
100A	7	4	3	<b>407/2483B</b>	<b>807/2483B</b>
100A	7	5	2	<b>407/2583B</b>	<b>807/2583B</b>
100A	10	3	7	<b>410/2383B</b>	<b>810/2383B</b>
100A	10	4	6	<b>410/2483B</b>	<b>810/2483B</b>
100A	10	5	5	<b>410/2583B</b>	<b>810/2583B</b>
100A	10	6	4	<b>410/2683B</b>	<b>810/2683B</b>
100A	10	7	3	<b>410/2783B</b>	<b>810/2783B</b>
100A	12	6	6	<b>412/2683B</b>	-
100A	15	5	10	<b>415/2583B</b>	<b>815/2583B</b>
100A	15	6	9	<b>415/2683B</b>	<b>815/2683B</b>
100A	15	7	8	<b>415/2783B</b>	<b>815/2783B</b>
100A	15	8	7	<b>415/2883B</b>	<b>815/2883B</b>
100A	15	9	6	<b>415/2983B</b>	<b>815/2983B</b>
100A	15	10	5	<b>415/2183B</b>	<b>815/2183B</b>

Both MCBs and RCBOs may be included for final circuit positions that are not protected by resident RCCBs.



413/236565B

### HIGH INTEGRITY DUAL RCD UNITS

MS Rating	Total Ways	Main Switch	RCCB 1	RCCB 2	Insulated	Metal
			63A 30mA	63A 30mA		
100A	8	2	3	3	<b>408/226363B</b>	<b>808/226363B</b>
100A	13	2	6	5	<b>413/226665B</b>	<b>813/226665B</b>
100A	13	2	7	4	<b>413/226764B</b>	<b>813/226764B</b>
100A	13	2	8	3	<b>413/226863B</b>	<b>813/226863B</b>
100A	13	3	5	5	<b>413/236565B</b>	<b>813/236565B</b>
100A	13	3	6	4	<b>413/236664B</b>	<b>813/236664B</b>
100A	13	3	7	3	<b>413/236763B</b>	<b>813/236763B</b>
100A	13	4	5	4	<b>413/246564B</b>	<b>813/246564B</b>
100A	13	4	6	3	<b>413/246663B</b>	<b>813/246663B</b>
100A	13	5	4	4	<b>413/256464B</b>	<b>813/256464B</b>
100A	13	5	5	3	<b>413/256563B</b>	<b>813/256563B</b>
100A	13	6	4	3	<b>413/266463B</b>	<b>813/266463B</b>

MS Rating	Total Ways	Main Switch	RCCB 1	RCCB 2	Insulated
			80A 30mA	80A 30mA	
100A	9	1	4	4	<b>409/218484B</b>
100A	9	2	4	3	<b>409/228483B</b>
100A	13	3	5	5	<b>413/238585B</b>

Both MCBs and RCBOs may be included for final circuit positions that are not protected by resident RCCBs.



413/2837636B

### DUAL RCD SPLIT LOAD UNITS

MS Rating	Total MCB Ways	Main Switch	RCCB 1	RCCB 2	Insulated	Metal
			63A 30mA	63A 30mA		
100A	13	0	7	6	<b>413/2637636B</b>	<b>813/2637636B</b>
100A	13	0	8	5	<b>413/2638635B</b>	<b>813/2638635B</b>
100A	13	0	9	4	<b>413/2639634B</b>	<b>813/2639634B</b>

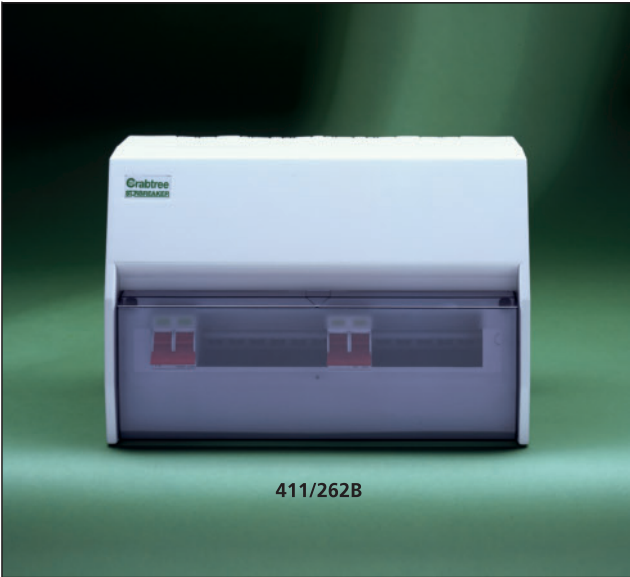
MS Rating	Total MCB Ways	Main Switch	RCCB 1	RCCB 2	Insulated	Metal
			80A 30mA	63A 30mA		
100A	8	0	4	4	<b>408/2834634B</b>	<b>808/2834634B</b>
100A	13	0	7	6	<b>413/2837636B</b>	<b>813/2837636B</b>
100A	13	0	8	5	<b>413/2838635B</b>	<b>813/2838635B</b>
100A	13	0	9	4	<b>413/2839634B</b>	<b>813/2839634B</b>



404/383B

### RCD INCOMER UNITS

RCCB Rating	Total MCB Ways	RCCB	Insulated	Metal
40A 30mA	2	2	<b>402/343B</b>	<b>802/343B</b>
63A 30mA	2	2	<b>402/363B</b>	<b>802/363B</b>
63A 30mA	4	4	<b>404/363B</b>	-
80A 30mA	4	4	<b>404/383B</b>	<b>804/383B</b>
80A 30mA	7	7	<b>407/383B</b>	<b>807/383B</b>
100A 30mA	7	7	<b>407/313B</b>	-
80A 30mA	10	10	<b>410/383B</b>	<b>810/383B</b>
100A 30mA	10	10	<b>410/313B</b>	<b>810/313B</b>
80A 30mA	13	13	<b>413/383B</b>	<b>813/383B</b>
100A 30mA	13	13	<b>413/313B</b>	<b>813/313B</b>
80A 30mA	18	18	<b>418/383B</b>	<b>818/383B</b>
100A 30mA	18	18	<b>418/313B</b>	<b>818/313B</b>



411/262B

**DUAL TARIFF UNITS**

Total MCB/ RCBO Ways	Main Switch 100A		Insulated	Metal
	Tariff 1	Tariff 2		
5	3	2	<b>405/232B</b>	<b>805/232B</b>
8	3	5	<b>408/232B</b>	<b>808/232B</b>
8	4	4	<b>408/242B</b>	<b>808/242B</b>
8	5	3	<b>408/252B</b>	<b>808/252B</b>
8	6	2	<b>408/262B</b>	<b>808/262B</b>
11	4	7	<b>411/242B</b>	<b>811/242B</b>
11	5	6	<b>411/252B</b>	<b>811/252B</b>
11	6	5	<b>411/262B</b>	<b>811/262B</b>
11	7	4	<b>411/272B</b>	<b>811/272B</b>
11	8	3	<b>411/282B</b>	<b>811/282B</b>
16	6	10	<b>416/262B</b>	<b>816/262B</b>
16	7	9	<b>416/272B</b>	<b>816/272B</b>
16	8	8	<b>416/282B</b>	<b>816/282B</b>
16	9	7	<b>416/292B</b>	<b>816/292B</b>
16	10	6	<b>416/212B</b>	<b>816/212B</b>
16	11	5	<b>416/2112B</b>	<b>816/2112B</b>



408/22623B

**MULTI TARIFF UNITS**

Total MCB/ RCBO Ways	Main Switch 100A			Insulated	Metal
	Tariff 1	Tariff 2	Tariff 3		
9	4	1	4	<b>409/242124B</b>	<b>809/242124B</b>
14	8	1	5	<b>414/282125B</b>	<b>814/282125B</b>
14	7	1	6	<b>414/272126B</b>	<b>814/272126B</b>

**SPLIT LOAD DUAL TARIFF UNITS**

MS Rating	Total Ways	Main Switch	RCCB 63A 30mA	Main Switch 100A Tariff 2	
				Insulated	Metal
100A	8	2	3	3	<b>408/22623B</b>
100A	13	5	2	6	<b>413/25626B</b>
100A	13	3	6	4	<b>413/23624B</b>

Both MCBs and RCBOs may be included for final circuit positions that are not protected by resident RCCBs.

MS Rating	Total MCB/ RCBO Ways	Main Switch	RCCB 80A 30mA	Main Switch 100A Tariff 2	
				Insulated	Metal
100A	13	3	6	4	<b>413/23824B</b>

Both MCBs and RCBOs may be included for final circuit positions that are not protected by resident RCCBs.

For components selection & dimensions see *Starbreaker Components* page 140.



H913/2WB

**ASSEMBLED SPINE BACKPLATES**

**MAIN SWITCH**

MS Rating	Total MCB/ RCBO Ways	Main Switch	LIST No
100A	13	13	<b>H913/2WB</b>
100A	18	18	<b>H918/2WB</b>

**SPLIT LOAD 100A SWITCH 63A 30mA RCCB**

MS Rating	Total Ways	Main Switch	RCCB	LIST No
100A	10	4	6	<b>H910/2463WB</b>
100A	10	5	5	<b>H910/2563WB</b>
100A	10	6	4	<b>H910/2663WB</b>

MCBs and RCBOs may be included for final circuit positions not protected by resident RCCBs.

**SPLIT LOAD 100A SWITCH 80A 30mA RCCB**

MS Rating	Total Ways	Main Switch	RCCB	LIST No
100A	10	4	6	<b>H910/2483WB</b>
100A	10	5	5	<b>H910/2583WB</b>

MCBs and RCBOs may be included for final circuit positions not protected by resident RCCBs. Starbreaker spine backplates (H) accept both MCBs and single module RCBOs.



908/2834634WB

**ASSEMBLED SPINE BACKPLATES**

**DUAL RCD SPLIT LOAD**

MS Rating	Total Ways	Main Switch	RCCB		LIST No
			1 80A 30mA	2 63A 30mA	
100A	8	0	4	4	<b>908/2834634WB</b>



826/283B

**TWO BANK SPLIT LOAD METAL UNITS**

MS Rating	Total Ways	Main Switch	RCCB 80A 30mA	LIST No
100A	20	10	10	<b>820/283B</b>
100A	26	13	13	<b>826/283B</b>
100A	36	18	18	<b>836/283B</b>

Both MCBs and RCBOs may be included for final circuit positions that are not protected by resident RCCBs.

**TWO BANK DUAL RCD SPLIT LOAD METAL UNITS**

MS Rating	Total MCB/RCBO Ways	Main Switch	RCCB		LIST No
			1 63A 30mA	2 80A 30mA	
100A	17	0	7	10	<b>817/26383B</b>
100A	23	0	10	13	<b>823/26383B</b>
100A	33	0	15	18	<b>833/26383B</b>

Flush metal units available upon request.

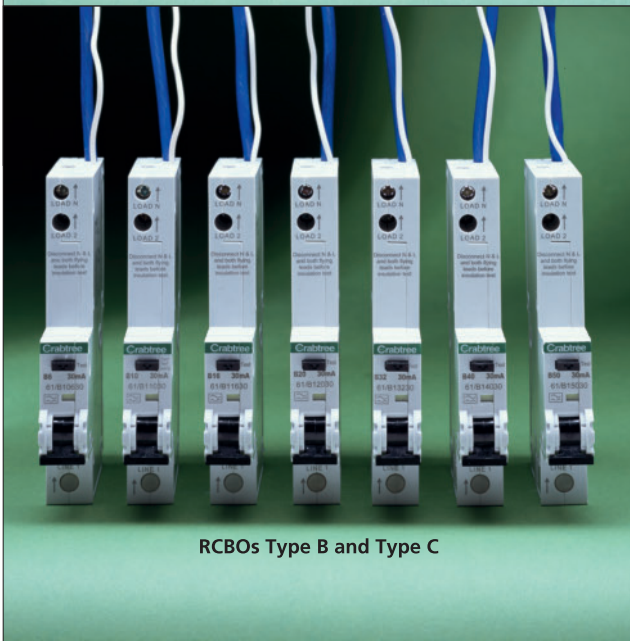


61/B06 61/B10 61/B16 61/B20 61/B32 61/B40 61/B50

**MINIATURE CIRCUIT BREAKERS**

RATING	MODULES	LIST No	
		Type B	Type C
6A	1	<b>61/B06</b>	<b>61/C06</b>
10A	1	<b>61/B10</b>	<b>61/C10</b>
16A	1	<b>61/B16</b>	<b>61/C16</b>
20A	1	<b>61/B20</b>	<b>61/C20</b>
32A	1	<b>61/B32</b>	<b>61/C32</b>
40A	1	<b>61/B40</b>	<b>61/C40</b>
50A	1	<b>61/B50</b>	<b>61/C50</b>

- BSEN 60898 6kA – 240V 50Hz.
- Type B classification (3–5In). Type C classification (5–10In).
- 25mm<sup>2</sup> terminal capacity.



RCBOs Type B and Type C

**RESIDUAL CURRENT CIRCUIT BREAKER WITH OVERCURRENT PROTECTION (RCBOs)**

RATING	MODULES	LIST No	
		30mA Type B	30mA Type C
6A	1	<b>61/B10630</b>	<b>61/C10630</b>
10A	1	<b>61/B11030</b>	<b>61/C11030</b>
16A	1	<b>61/B11630</b>	<b>61/C11630</b>
20A	1	<b>61/B12030</b>	<b>61/C12030</b>
32A	1	<b>61/B13230</b>	<b>61/C13230</b>
40A	1	<b>61/B14030</b>	<b>61/C14030</b>
50A	1	<b>61/B15030</b>	<b>61/C15030</b>

- EN 61009-1, IEC61009-1.
- 230 (240)V AC 50/60 Hz.
- 16mm<sup>2</sup> terminal capacity.

**CAUTION**

These devices are electronic units and should be disconnected from the supply during insulation and earth fault loop impedance testing.

**ACCESSORIES**

Blanking Plate	<b>443</b>
Blanking Unit	<b>CSB1</b>
Blanking Plate twist fit	<b>CSBC</b>
MCB Padlocking Device	<b>MCLDL</b>



301/B6 301/B8 301/B12

### BELL TRANSFORMER

DESCRIPTION	MODULES	LIST No
12V bell transformer	2	<b>303/B12</b>
6V bell transformer	1	<b>301/B6</b>
8V bell transformer	1	<b>301/B8</b>
12V bell transformer	1	<b>301/B12</b>

- With overload protection.



301/TD1 302/TD2

### DIGITAL TIMESWITCHES

DESCRIPTION	MOD	LIST No
1 Channel Digital Timeswitch	1	<b>301/TD1</b>
1 Channel Digital Timeswitch	2	<b>302/TD1</b>
2 Channel Digital Timeswitch	2	<b>302/TD2</b>
1 Channel Digital Timeswitch + data key facility	2	<b>402/TD1</b>
2 Channel Digital Timeswitch + data key facility	2	<b>402/TD2</b>
1 Channel Digital Astro Timeswitch + data key facility	2	<b>502/TD1</b>
2 Channel Digital Astro Timeswitch + data key facility	2	<b>502/TD2</b>
1-10 min Staircase Timeswitch	1	<b>301/S10</b>
Software		<b>USB/S</b>
Data Key		<b>4/5DK</b>
Data Key		<b>6DK</b>



301/TQ24 303/TQ7

### ANALOGUE TIMERS

DESCRIPTION	MODULES	LIST No
24hr Analogue Quartz	1	<b>301/TQ24</b>
24hr Analogue Quartz	3	<b>303/TQ24</b>
7 Day Analogue Quartz	3	<b>303/TQ7</b>
24hr Analogue Synchronous	1	<b>301/TS11</b>
24hr Analogue Synchronous	3	<b>303/TS24</b>



CIK22-02 CIK24-40 CIK63-40

### SILENT OPERATION INSTALLATION CONTACTORS

TYPE	Thermal Rating per Pole AC1(A)		Pole Configuration		LIST No
	230V	400V	N/O	N/C	
CIK22	20		2	0	1 Mod [ <b>CIK22-20</b> <b>CIK22-11</b> <b>CIK22-02</b> ]
			1	1	
			0	2	
CIK24	24		4	0	2 Mod [ <b>CIK24-40</b> <b>CIK24-31</b> <b>CIK24-22</b> <b>CIK24-04</b> ]
			3	1	
			2	2	
			0	4	
CIK40	40		4	0	3 Mod [ <b>CIK40-40</b> <b>CIK40-31</b> <b>CIK40-22</b> <b>CIK40-04</b> ]
			3	1	
			2	2	
			0	4	
CIK63	63		4	0	3 Mod [ <b>CIK63-40</b> <b>CIK63-31</b> <b>CIK63-22</b> ]
			3	1	
			2	2	
Auxiliary Contacts (40A & 63A only)	AC15				<b>CHHSLA11</b> <b>CHHSLA20</b>
	6	4	1	1	
			2	0	

## CIRCUIT PROTECTION REQUIREMENTS WITHIN ELECTRICAL INSTALLATIONS.

### SOCKET CIRCUITS 411.3.3

RCDs are now required to provide additional protection. To be recognised as providing additional protection the RCD must be rated at 30mA or less and operate within 40ms when tested at 5x rated residual operating current.

● **RCDs are now required for all general use socket outlets rated up to 20A.** Two exceptions are allowed for ;

- 1. Socket outlets used under supervision of skilled or instructed persons.
- 2. A socket outlet suitably identified for connection of a particular item of equipment.

Additional protection must be provided in the event of failure of the provision of basic protection and/or the provision of fault protection or carelessness by users of the installation. **Protection by 30mA RCD will be required for;**

- Upstairs ring circuit
- Downstairs ring circuit
- Kitchen ring circuit
- Cooker control unit c/w socket outlet

### CABLES 522.6.101 522.6.102 522.6.103

#### Regulation 522.6.101

A cable concealed in a wall or partition at less than 50mm from the surface shall;

1. Incorporate an earthed metallic covering suitable for service as the circuit CPC - *or*
2. Be enclosed in earthed conduit *or*
3. Be enclosed in trunking or ducting *or*
4. Be mechanically protected against damage from penetration by nails or screws and the like *or*
5. Be installed in the prescribed zones.
6. Form part of a SELV or PELV circuit.

**Regulation 522.6.102** Where 522.6.101 applies and the installation is **not intended to be under the supervision of skilled or instructed persons**, cables installed in accordance with 522.6.101(5) but not having mechanical protection of 1,2,3 or 4 shall be provided with additional protection by means of a 30mA RCD.

In the majority of domestic situations cables installed beneath a plaster surface within partition walls without mechanical protection will require additional protection by **30mA RCD regardless** of their routing.

- Upstairs lighting
- Downstairs lighting
- Immersion heater
- Smoke alarm
- Burglar alarm

### Bathrooms

- **Section 7** Special installations or Locations.
- **Section 701** Locations containing a bath or shower.
- Zone 3 has been removed.
- Suitable equipment can be within 600mm of a bath, excluding 13A sockets to BS1363 which must be 3m from the edge of a bath or shower.
- Additional protection shall be provided by the use of **one or more residual current device** with a rated operating current not exceeding 30mA (701.411.3.3).
- Supplementary bonding is not required as long as final circuits of this location comply with requirements for automatic disconnection (411.3.2) and all extraneous conductive parts are effectively connected to the protective equipotential bonding (411.3.1.2).

Additional protection must be provided by one or more 30mA RCDs.

- shower circuit
- lighting circuit
- Heating circuit
- Ventilation circuit

### Chapter 31

314.1 Requires that; Every installation shall be divided into circuits, as necessary, to:

- i. Avoid danger and minimise inconvenience in the event of a fault
- ii. Facilitate safe inspection, testing and maintenance
- iii. Take account of danger that may arise from the failure of a single circuit such as a lighting circuit
- iv. Reduce the possibility of unwanted tripping of residual current devices (RCDs) due to excessive protective conductor currents produced by equipment in normal operation.

**British Standards and IEE regulations are subject to change and amendment. This guide to Crabtree consumer units is not a substitute for the regulations which should always be used for all types of electrical installation design, and installation work.**

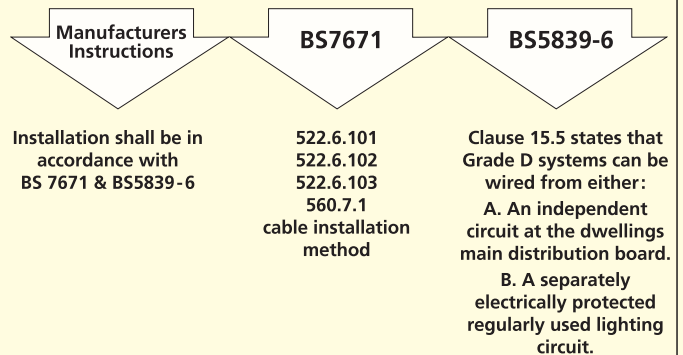
### MAINS SUPPLIES FOR SMOKE ALARMS WITHIN DOMESTIC SETTINGS

**Clause 7.1 of BS 5839-6 defines a Grade D system** as: "A system of one or more mains-powered smoke alarms, each with an integral standby supply (The system may in addition, incorporate one or more mains-powered heat alarms each with an integral standby supply).

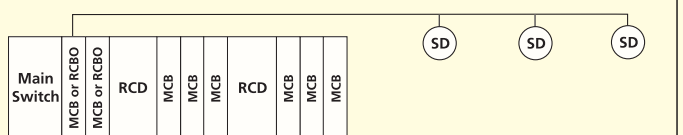
The 17th Edition of the wiring regulations do not cover every item of Electrical Equipment likely to be installed. They do not specifically mention Smoke Alarms. However:

**CHAPTER 13 REGULATION 134.1.1** states that electrical equipment shall be installed in accordance with the instructions of the manufacturer of the equipment.

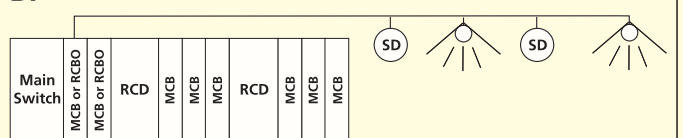
**CHAPTER 51 REGULATION 510.3** states that every item of electrical equipment shall be selected and erected so as to allow compliance with the regulations stated in this chapter and the relevant regulations in other parts of BS7671 and shall take account of manufacturers instructions.



#### A.



#### B.

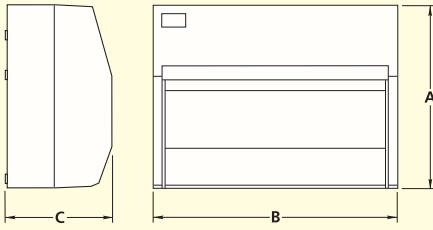


Elements of Electrical Protection will include short circuit, overcurrent and may also include additional protection by a residual current device (30mA) for certain installation methods covered by BS7671 (522.6.102) & (522.6.103)

**IF ADDITIONAL PROTECTION IS REQUIRED BY BS7671 THE NEED FOR SEPARATE ELECTRICAL PROTECTION CANNOT BE MET BY DUAL RCD CONSUMER UNIT ARRANGEMENTS WHERE SINGLE RESIDUAL CURRENT DEVICES PROTECT GROUPS OF CIRCUITS.**

**DIMENSIONS**

**INSULATED ENCLOSURES**



**STARBREAKER SIZE 4 ENCLOSURE (404/0A)**

DIMENSIONS A =160mm B =117mm C =102mm

- 402/2B                      402/363B
- 402/26B
- 402/343B

**STARBREAKER SIZE 6 ENCLOSURE (406/0A)**

DIMENSIONS A =230mm B =190mm C =120mm

- 404/2B                      404/363B
- 404/383B

**STARBREAKER SIZE 9 ENCLOSURE (409/0A)**

DIMENSIONS A =230mm B =243mm C =120mm

- 404/2263B                  407/313B
- 405/232B                  407/383B
- 407/2B

**STARBREAKER SIZE 12 ENCLOSURE (412/0A)**

DIMENSIONS A =230mm B =294mm C =120mm

- 407/2263B                  407/2563B                  410/2B
- 407/2283B                  407/2583B                  410/313B
- 407/2363B                  408/232B                  410/383B
- 407/2383B                  408/242B
- 407/2463B                  408/252B
- 407/2483B                  408/262B

**STARBREAKER SIZE 15 ENCLOSURE (415/0A)**

DIMENSIONS A =230mm B =344mm C =120mm

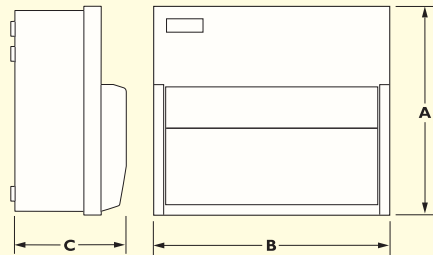
- 408/22623B                  410/2563B                  411/282B
- 408/226363B                  410/2583B                  413/2B
- 408/2834634B                  410/2663B                  413/313B
- 409/218484B                  410/2683B                  413/383B
- 409/228483B                  410/2763B
- 409/242124B                  410/2783B
- 410/2363B                  411/242B
- 410/2383B                  411/252B
- 410/2463B                  411/262B
- 410/2483B                  411/272B

**STARBREAKER SIZE 20 ENCLOSURE (420/0A)**

DIMENSIONS A =230mm B =439mm C =120mm

- 412/2683B                  413/246564B                  413/2838635B                  415/2763B                  416/282B
- 413/226665B                  413/246663B                  413/2839634B                  415/2783B                  416/292B
- 413/226764B                  413/25626B                  414/272126B                  415/2863B                  418/2B
- 413/226863B                  413/256464B                  414/282125B                  415/2883B                  418/313B
- 413/23624B                  413/256563B                  415/2163B                  415/2963B                  418/383B
- 413/236565B                  413/2637636B                  415/2183B                  415/2983B
- 413/236664B                  413/2638635B                  415/2563B                  416/2112B
- 413/236763B                  413/2639634B                  415/2583B                  416/212B
- 413/23824B                  413/266463B                  415/2663B                  416/262B
- 413/238585B                  413/2837636B                  415/2683B                  416/272B

**METAL ENCLOSURES**



**STARBREAKER SIZE 4 ENCLOSURE (804/0A)**

DIMENSIONS A =185mm B =130mm C =97mm

- 802/26B                      802/343B
- 802/2B                        802/363B

**STARBREAKER SIZE 6 ENCLOSURE (806/0A)**

DIMENSIONS A =261mm B =188mm C =122mm

- 804/2B                        804/383B

**STARBREAKER SIZE 9 ENCLOSURE (809/0A)**

DIMENSIONS A =261mm B =242mm C =122mm

- 804/2263B                  807/2B
- 805/232B                  807/383B

**STARBREAKER SIZE 12 ENCLOSURE (812/0A)**

DIMENSIONS A =261mm B =292mm C =122mm

- 807/2263B                  807/2563B                  810/2B
- 807/2283B                  807/2583B                  810/313B
- 807/2363B                  808/232B                  810/383B
- 807/2383B                  808/242B
- 807/2463B                  808/252B
- 807/2483B                  808/262B

**STARBREAKER SIZE 15 ENCLOSURE (815/0A)**

DIMENSIONS A =261mm B =343mm C =122mm

- 808/22623B                  810/2683B
- 808/226363B                  810/2763B
- 808/2834634B                  810/2783B
- 809/242124B                  811/242B
- 810/2363B                  811/252B
- 810/2383B                  811/262B
- 810/2463B                  811/272B
- 810/2483B                  811/282B
- 810/2563B                  813/2B
- 810/2583B                  813/313B
- 810/2663B                  813/383B

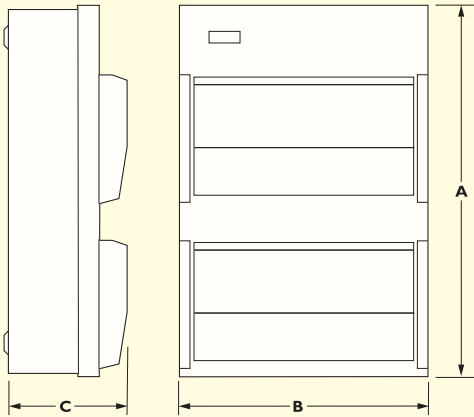
**STARBREAKER SIZE 20 ENCLOSURE (820/0A)**

DIMENSIONS A =261mm B =438mm C =122mm

- 813/226764B                  813/256563B                  815/2183B                  816/2112B
- 813/226863B                  813/2637636B                  815/2563B                  816/212B
- 813/23624B                  813/2638635B                  815/2583B                  816/262B
- 813/236565B                  813/2639634B                  815/2663B                  816/272B
- 813/236664B                  813/266463B                  815/2683B                  816/282B
- 813/236763B                  813/2837636B                  815/2763B                  816/292B
- 813/23824B                  813/2838635B                  815/2783B                  818/2B
- 813/246564B                  813/2839634B                  815/2863B                  818/313B
- 813/246663B                  814/272126B                  815/2883B                  818/383B
- 813/25626B                  814/282125B                  815/2963B
- 813/256464B                  815/2163B                  815/2983B

## DIMENSIONS

### TWO BANK UNITS



#### STARBREAKER SIZE 24 ENCLOSURE (824/2A)

DIMENSIONS A =506mm B =295mm C =121mm

817/26383B      820/283B

#### STARBREAKER SIZE 30 ENCLOSURE (830/2A)

DIMENSIONS A =506mm B =345mm C =121mm

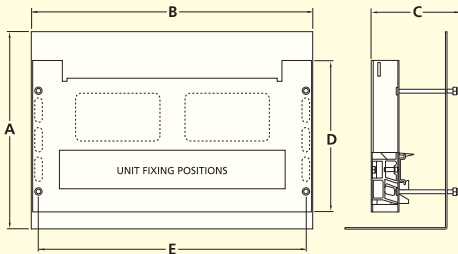
823/26383B      826/283B

#### STARBREAKER SIZE 40 ENCLOSURE (840/2A)

DIMENSIONS A =506mm B =440mm C =121mm

833/26383B      836/283B

### SPINE BACKPLATE ASSEMBLIES (White PVC Cover)



#### STARBREAKER 15 MODULE SPINE BACKPLATE UNIT (824/2A)

DIMENSIONS A =235mm B =335mm C =106mm D =180mm E =319.5mm

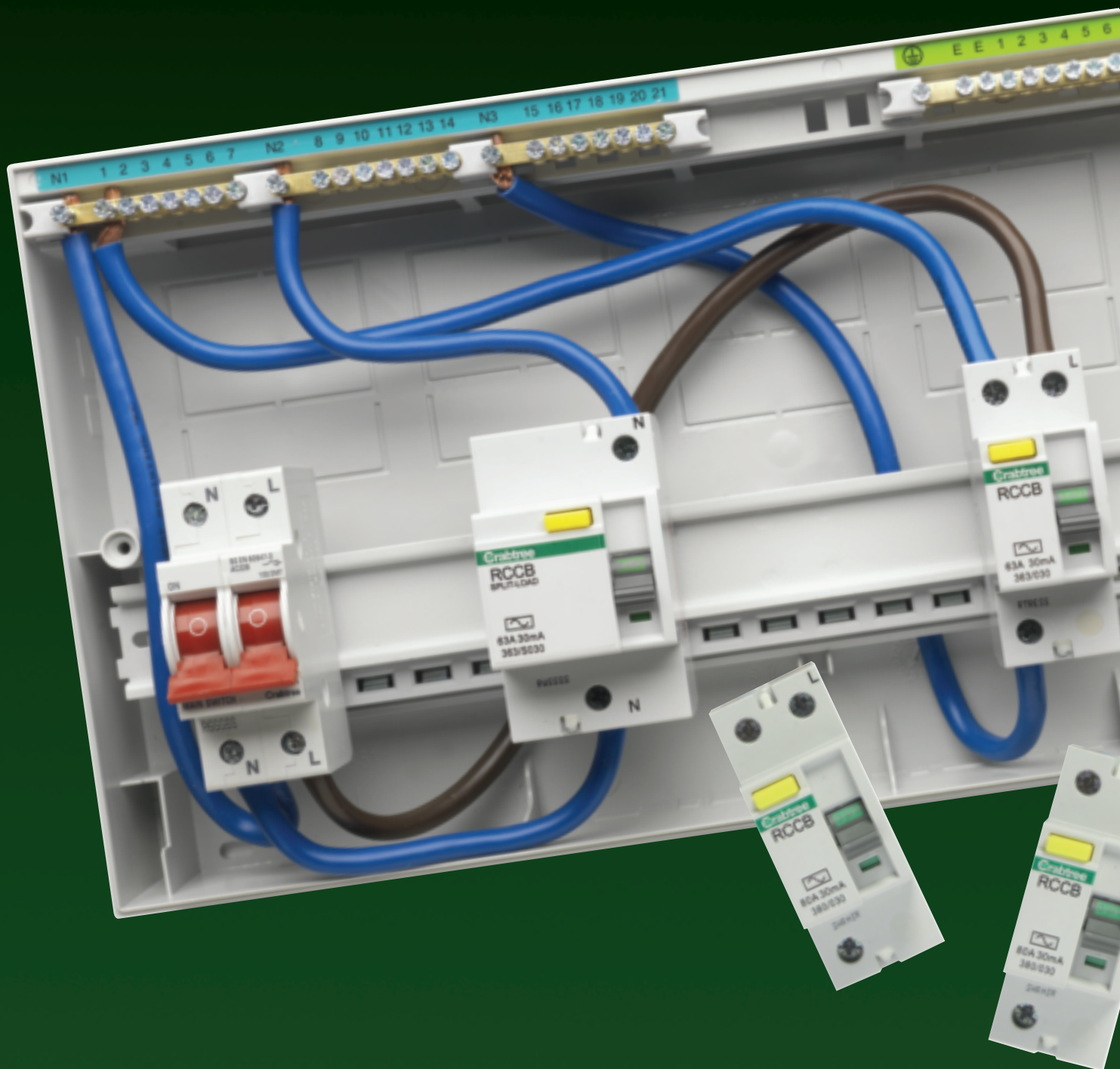
908/2834634WB      H910/2563WB      H913/2WB  
 H910/2463WB      H910/2583WB  
 H910/2483WB      H910/2663WB

#### STARBREAKER 20 MODULE SPINE BACKPLATE UNIT (824/2A)

DIMENSIONS A =235mm B =448mm C =106mm D =180mm E =435mm

H918/2WB

# 10 good reasons to specify . . .



# STARBREAKER



- ★ Insulated 'finger safe' busbar with permanent factory fitted insulation brings greater personal protection and reduces the risk to the installer when live working is unavoidable e.g. testing. This improves the overall Health and Safety environment for the installer and the specifier
- ★ Quick fit plug in devices will reduce the overall install time and will save time for the installer and save money. Ultimately Invoices are reduced reflecting these savings for the end user/specifier
- ★ Plug in connection devices and busbar provides an instant guaranteed factory standard connection. 25% fewer screw terminal connections to make, less chance of an error or a loose/faulty connection
- ★ Low maintenance and instant upgrades - replacing a protective device can be done without removing the busbar, all existing connections are undisturbed
- ★ The plug in busbar was introduced in 1992, the reliability of this connection has been proved over time with an estimated 10 million plug in connections that have been made over the past 20 years
- ★ The innovative plug in busbar utilises plated contacts to assure superior electro conductivity and offer additional corrosion resistance
- ★ DIN rail mounted accessories can be fitted instantly into any unused ways - no impact from the busbar, all existing connections remain in place and are undisturbed
- ★ Quality assurance is maintained within the plug in busbar that is manufactured under ISO 9001 quality assured conditions, offering a guaranteed instant connection every time
- ★ Fixed Positive location ensures the devices don't move along the DIN rail once they are position. They also have an additional DIN rail clip that gives added assurance that the devices are completely locked in position
- ★ A product from a premium reputable brand. Since its formation in 1919, Crabtree have been acknowledged as one of Britain's leading manufacturers of wiring accessories and circuit protection equipment. Crabtree's diverse product range is renowned for outstanding quality and excellent value for money

# Complete power and control across the Range

Crabtree's diverse product range is renowned for its outstanding quality and excellent value for money.



## POLESTAR COMPACT

A range of compact SPN and TPN Boards, full range of accessories and metering options.

## FACTORY BUILT ASSEMBLIES

Made to exacting standards, Crabtree design, engineer and build distribution equipment, from custom MCB boards to modular switchboards.

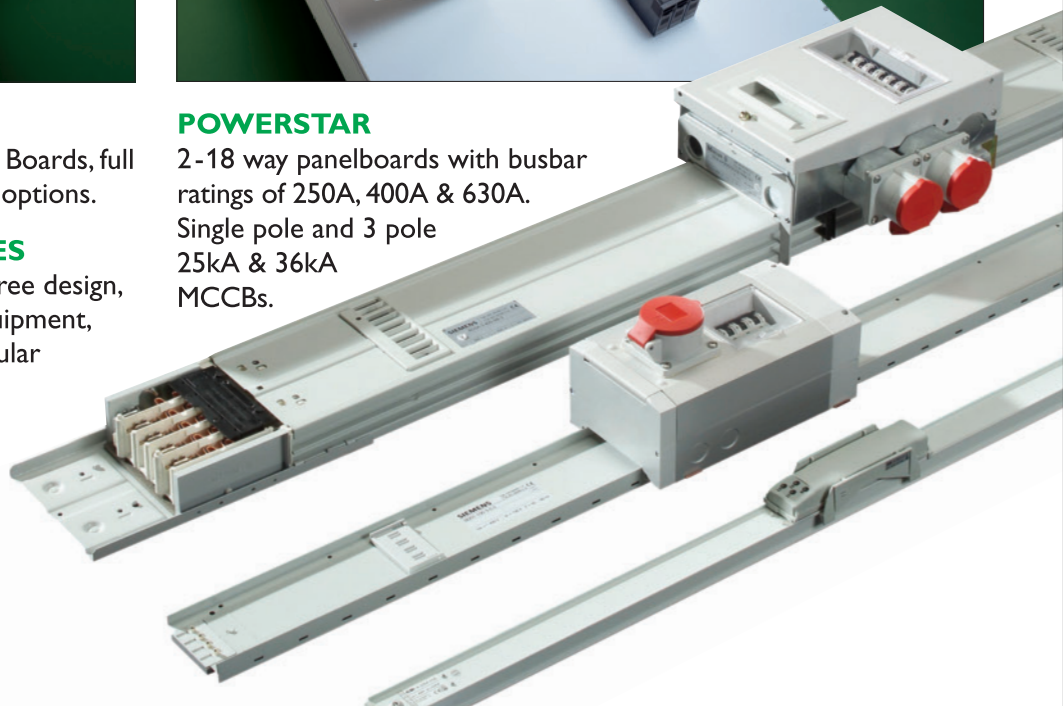
## BUSBAR SYSTEMS

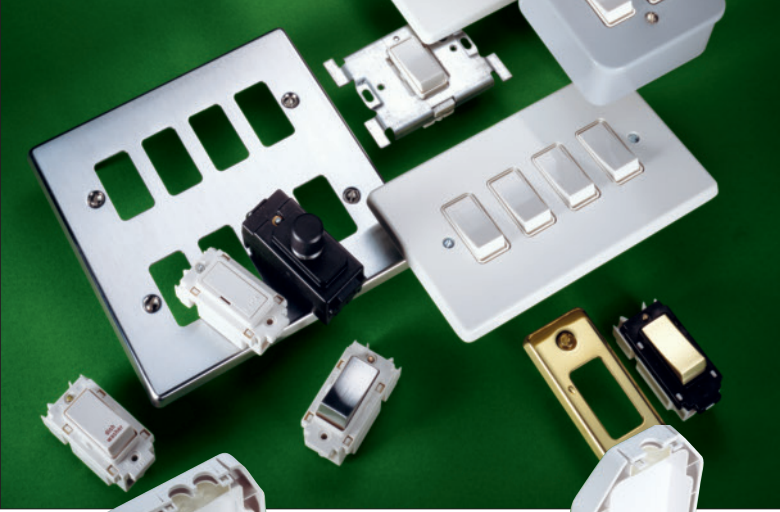
BD busbar, providing safe power for industrial applications and to feed the illustrated CD-K lighting busbar.

## POWERSTAR

2-18 way panelboards with busbar ratings of 250A, 400A & 630A.

Single pole and 3 pole  
25kA & 36kA  
MCCBs.





### **CAPITAL**

A fully design co-ordinated range, offering consistent styling and inherent safety features across a broad range of applications.

### **ROCKERGRID**

The design versatility of a modular switch whilst incorporating Capital styling and safety features.

### **PART M**

A range of wiring accessories which allow the installer to meet the requirements of Part M of the electrical wiring regulations.

### **METAL CLAD**

In tough conditions this sturdily built range, is ideal for use in industry, commerce and the home.

### **WEATHERSEAL**

Water and dust protected to IP56, Weatherseal is ideal for all environments, retaining their IP rating when in use with standard moulded on 13A plug.



### **WARWICK**

PVC modular trunking range which can be mounted at either Dado or Skirting level, available in two different sizes and 5 different profiles.

### **BRITMAC**

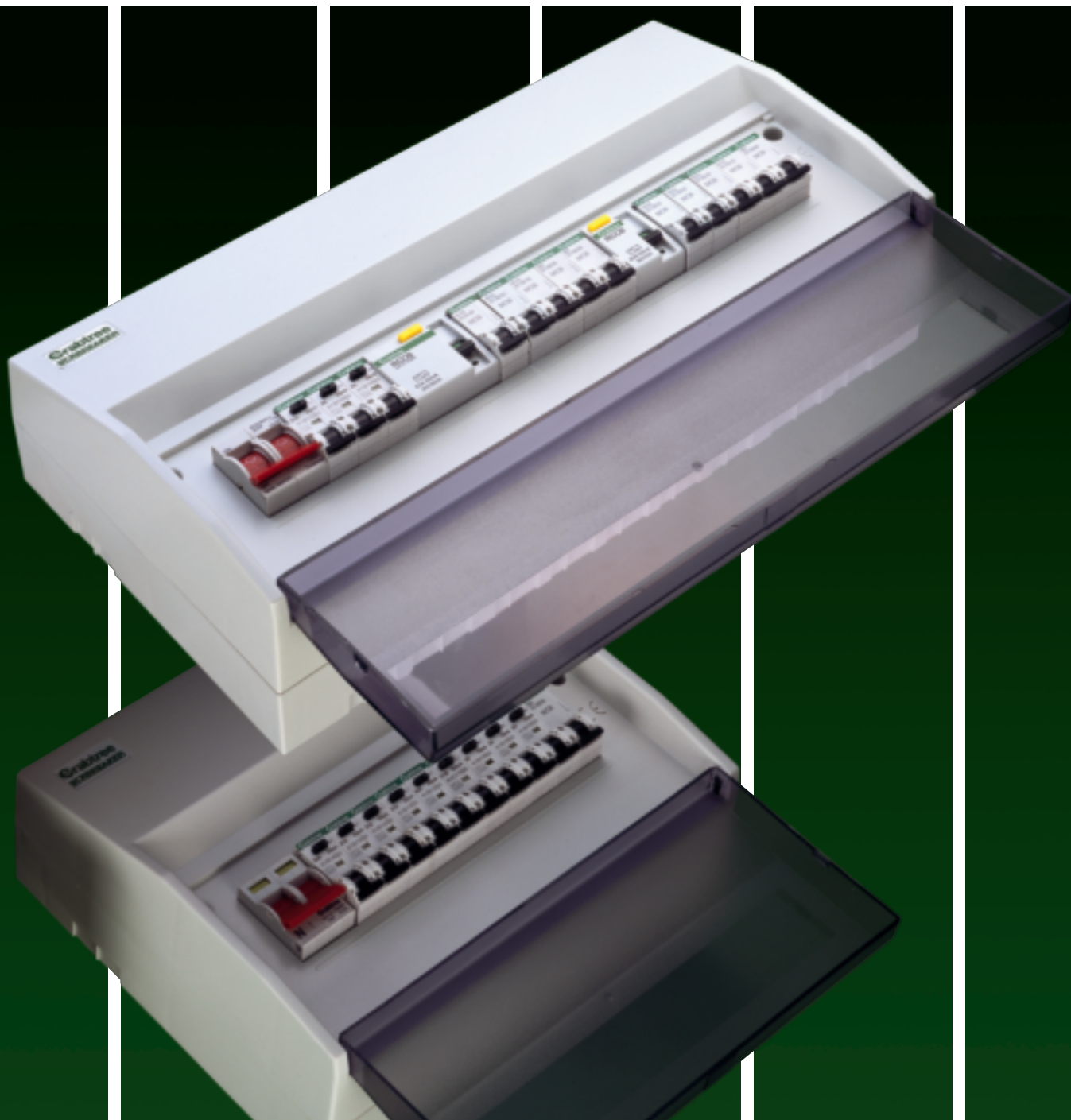
Power Track Underfloor System consists of a series of fully enclosed single phase busbar module units.

The comprehensive fast-fit floor box provides a wide choice. Units can be supplied fitted with accessories pre-wired to customer's requirements.





**Electrium**



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Although every effort has been made to ensure accuracy in the compilation of the technical detail within this publication, specifications and performance data are constantly changing. Latest details can be obtained from Crabtree.

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