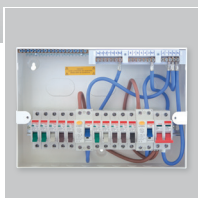


CONTACTUM



Defender



Consumer Units
Domestic Premises

Defender

Contactum Metal Consumer Units & Surge Protection

In January 2019 the IET published the 18th Edition of the Wiring Regulations - BS7671:2018

This introduced new requirements covering for the provision of over-voltage protection by the use of Surge Protection Devices designed to overcome the potential impact upon Installations and the equipment within them.

Definition of a Surge

A surge is a fast short duration electrical transient in current or voltage within an electrical circuit.

Typically caused by an oversupply in voltage either from a switching event, or from an external source such as lightning.

Mains sources of Surges

■ Transient Voltages

These occur during switching events which release stored energy from established magnetic fields. External examples of these are power stations, distribution transformers and generators. Transient voltages can also occur locally within installations by the switching of appliances such as welders and air-con units. These by their nature will be smaller in magnitude

■ Lightning Strikes

These can be extremely detrimental to electrical installations and attached equipment, as the current contained within a strike can be up to 200kA. Ground lightning strikes can cause surges within installations up to 2km away as this energy can find its way into buried electrical cables

Benefits of Surge Protection

A correctly specified and installed surge protection device **will safely disperse over voltages to earth** – minimising damage to the installation wiring and any connected equipment.

When do you need Surge Protection?

443.4 Over-voltage Control

Protection against over-voltages **shall be provided** where the consequence caused by



over-voltage could result in:

- (i) Serious injury to, or loss of human life
- (ii) Interruption of public services and/or damage to cultural heritage
- (iii) Interruption of commercial or industrial activity
- (iv) A large number of co-located individuals being affected.

For all other cases, a risk assessment according to 443.5 **shall be performed** in order to determine if protection against over-voltages is required. **Except** for single dwelling units where the total value of the

installation and equipment therein does not justify such protection.

Defender Consumer Units with Surge Protection Devices

Solution for all earthing systems

Available in:

- DD Range
- DDS Range
- Kits also available which include Surge Protection Devices, MCB and wires.

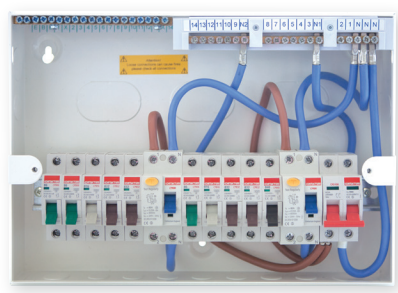
CONTACTUM

Circuit Protection

Devices for Domestic Premises

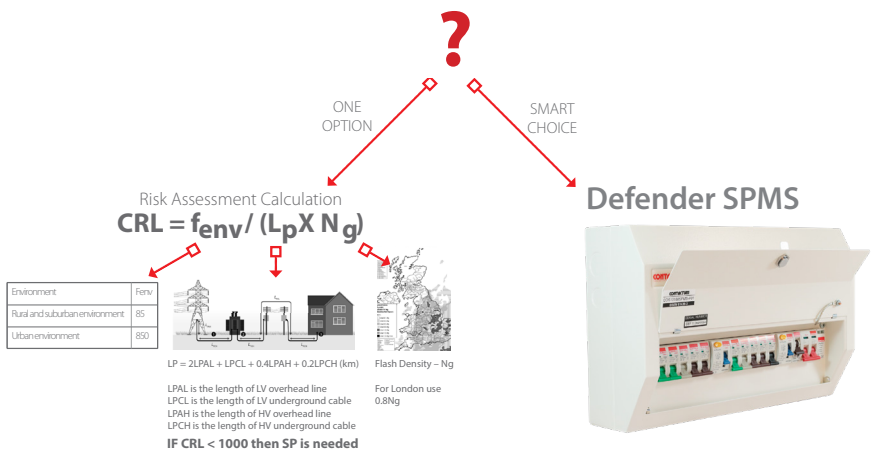


Features & Benefits



- A comprehensive range of single phase consumer units compliant with BS7671 18th Edition Wiring Regulations.
- A modern sleek design suitable for all installations.
- Comprehensive range comprising 10 different enclosure sizes.
- Up to 22 module board as standard; combine boards to increase number of outgoing ways.
- Maximum cable space and extensive number of cable entry points allowing easy installation.
- Comprehensive user instructions and high quality sub circuit identification labels.
- Degree of protection IP4X.
- Tested in accordance to BS EN 61439-3.
- Flexible board configuration to enable optimal combination of RCD, MCB and RCBO use.
- Pre-populated configurations available.
- Secure hinge design.
- Locking kits available.

Do you need SURGE PROTECTION?



Defender Consumer Units

Switch Disconnect Incomer Consumer Units Without & With Surge Protection



| Without Surge | With Surge | Description |
|---------------|---------------|---|
| DD024MS | - | 2 Way 40A Switch |
| DD026MS | - | 2 Way 63A Switch |
| DD021MS | - | 2 Way 100A Switch |
| DD044MS | - | 4 Way 40A Switch |
| DD046MS | - | 4 Way 63A Switch |
| DD041MS | DD041SPMS | 4 Way 100A Switch |
| DD066MS | - | 6 Way 63A Switch |
| DD061MS | - | 6 Way 100A Switch |
| - | DD081SPMS | 8 Way 100A Switch |
| DD106MS | - | 10 Way 63A Switch |
| DD101MS | DD101SPMS | 10 Way 100A Switch |
| DD121MS | DD121SPMS | 12 Way 100A Switch |
| DD141MS | DD141SPMS | 14 Way 100A Switch |
| DD161MS | DD161SPMS | 16 Way 100A Switch |
| DD181MS | DD181SPMS | 18 Way 100A Switch |
| DD201MS | - | 20 Way 100A Switch |
| DD101MS-P01 | DD101SPMS-P01 | 10 Way 100A Switch 1 x 40A, 2 x 32A 1 x 16A, 2 x 6A eRCBO + 4 Blanks |

RCD Incomer Consumer Units



| Code | Description |
|---------|-------------------------|
| DR024MS | 2 Way 40A RCD Incomer |
| DR026MS | 2 Way 63A RCD Incomer |
| DR044MS | 4 Way 40A RCD Incomer |
| DR046MS | 4 Way 63A RCD Incomer |
| DR048MS | 4 Way 80A RCD Incomer |
| DR066MS | 6 Way 63A RCD Incomer |
| DR068MS | 6 Way 80A RCD Incomer |
| DR061MS | 6 Way 100A RCD Incomer |
| DR106MS | 10 Way 63A RCD Incomer |
| DR108MS | 10 Way 80A RCD Incomer |
| DR101MS | 10 Way 100A RCD Incomer |
| DR148MS | 14 Way 80A RCD Incomer |
| DR141MS | 14 Way 100A RCD Incomer |
| DR168MS | 16 Way 80A RCD Incomer |
| DR161MS | 16 Way 100A RCD Incomer |
| DR201MS | 20 Way 100A RCD Incomer |

Split Load Consumer Units



| Code | Description |
|----------|------------------------------|
| DS0816MS | 8 Way 100A Switch + 63A RCD |
| DS0818MS | 8 Way 100A Switch + 80A RCD |
| DS1016MS | 10 Way 100A Switch + 63A RCD |
| DS1018MS | 10 Way 100A Switch + 80A RCD |
| DS1216MS | 12 Way 100A Switch + 63A RCD |
| DS1218MS | 12 Way 100A Switch + 80A RCD |
| DS1416MS | 14 Way 100A Switch + 63A RCD |
| DS1418MS | 14 Way 100A Switch + 80A RCD |
| DS1616MS | 16 Way 100A Switch + 63A RCD |
| DS1618MS | 16 Way 100A Switch + 80A RCD |
| DS1818MS | 18 Way 100A Switch + 80A RCD |

Flexible High Integrity Split Load Dual RCD Consumer Units Without & With Surge Protection



| Without Surge | With Surge | Description |
|----------------|------------------|---|
| DDS06166MS | DDS06166SPMS | 6 Way 100A Switch + 2 x 63A RCD |
| DDS06188MS | DDS06188SPMS | 6 Way 100A Switch + 2 x 80A RCD |
| DDS08166MS | DDS08166SPMS | 8 Way 100A Switch + 2 x 63A RCD |
| DDS08188MS | DDS08188SPMS | 8 Way 100A Switch + 2 x 80A RCD |
| DDS10166MS | DDS10166SPMS | 10 Way 100A Switch + 2 x 63A RCD |
| DDS10188MS | DDS10188SPMS | 10 Way 100A Switch + 2 x 80A RCD |
| DDS12166MS | DDS12166SPMS | 12 Way 100A Switch + 2 x 63A RCD |
| DDS12188MS | DDS12188SPMS | 12 Way 100A Switch + 2 x 80A RCD |
| DDS14166MS | DDS14166SPMS | 14 Way 100A Switch + 2 x 63A RCD |
| DDS14188MS | DDS14188SPMS | 14 Way 100A Switch + 2 x 80A RCD |
| DDS16166MS | - | 16 Way 100A Switch + 2 x 63A RCD |
| DDS16188MS | - | 16 Way 100A Switch + 2 x 80A RCD |
| DDS06166MS-P01 | - | 6 Way 100A Switch + 2 x 63A RCD c/w 1 x 40A, 2 x 32A, 1 x 16A, 2 x 6A MCBs |
| DDS06188MS-P01 | - | 6 Way 100A Switch + 2 x 80A RCD c/w 1 x 40A, 2 x 32A, 1 x 16A, 2 x 6A MCBs |
| DDS08166MS-P01 | - | 8 Way 100A Switch + 2 x 63A RCD c/w 1 x 40A, 3 x 32A, 1 x 16A, 2 x 6A MCBs |
| DDS08188MS-P01 | - | 8 Way 100A Switch + 2 x 80A RCD c/w 1 x 40A, 3 x 32A, 1 x 16A, 2 x 6A MCBs |
| DDS10166MS-P01 | - | 10 Way 100A Switch + 2 x 63A RCD c/w 1 x 40A, 4 x 32A, 2 x 16A, 3 x 6A MCBs |
| DDS10166MS-P02 | - | 10 Way 100A Switch + 2 x 63A RCD c/w 1 x 40A, 4 x 32A, 2 x 16A, 2 x 6A MCBs + 1 x 6A eRCBO |
| DDS10188MS-P01 | DDS10188SPMS-P01 | 10 Way 100A Switch + 2 x 80A RCD c/w 1 x 40A, 4 x 32A, 2 x 16A, 3 x 6A MCBs |
| DDS10188MS-P02 | - | 10 Way 100A Switch + 2 x 80A RCD c/w 1 x 40A, 4 x 32A, 2 x 16A, 2 x 6A MCBs + 1 x 6A eRCBO |
| DDS12188MS-P01 | DDS12188SPMS-P01 | 12 Way 100A Switch + 2 x 80A RCD c/w 1 x 40A, 4 x 32A, 2 x 16A, 3 x 6A MCBs + 2 Blanks |
| DDS14188MS-P01 | DDS14188SPMS-P01 | 14 Way 100A Switch + 2 x 80A RCD c/w 1 x 40A, 3 x 32A, 2 x 16A, 3 x 6A MCBs + 1 x 6A eRCBO & 4 Blanks |
| DDS16188MS-P01 | - | 16 Way 100A Switch + 2 x 80A RCD c/w 1 x 40A, 4 x 32A, 2 x 16A, 3 x 6A MCBs + 6 Blanks |

DDS also available with 100A RCD 30mA class A.
Other populated configuration available upon request.

Garage Unit, Shower Enclosures & Time Delay Enclosure



| Code | Description |
|-------------|---|
| DR026MS-P01 | Garage Unit 2 Way 63A RCD + 1 x 16A, 1 x 6A MCBs |
| DSPE1MS | 40A RCD Shower Enclosure - No O/G Ways |
| DSPE2MS | 63A RCD Shower Enclosure - 1 O/G 50A MCB |
| DSPE3MS | 63A RCD Shower Enclosure + 2 x MCBs |
| DTDDR001MS | 100A Time Delay RCD Incomer TT Enclosure |

Defender Devices

Empty Enclosures



Metal Enclosures Earth/Neutral

| | |
|-----------------|-------------------------------|
| DME02MS | IP4X 2 Mod 114 x 260 x 130mm |
| DME04MS | IP4X 4 Mod 150 x 260 x 130mm |
| DME06MS | IP4X 6 Mod 186 x 260 x 130mm |
| DME08MS | IP4X 8 Mod 222 x 260 x 130mm |
| DME012MS | IP4X 12 Mod 294 x 260 x 130mm |
| DME014MS | IP4X 14 Mod 330 x 260 x 130mm |
| DME016MS | IP4X 16 Mod 366 x 260 x 130mm |
| DME018MS | IP4X 18 Mod 402 x 260 x 130mm |
| DME020MS | IP4X 20 Mod 438 x 260 x 130mm |
| DME022MS | IP4X 22 Mod 474 x 206 x 130mm |

MCBs



MCB Devices B Type

| | |
|--------------|-------------------------|
| CPB06 | 6A 6kA Type B SP MCB |
| CPB10 | 10A 6kA Type B SP MCB |
| CPB16 | 16A 6kA Type B SP MCB |
| CPB20 | 20A 6kA Type B SP MCB |
| CPB25 | 25A 6kA Type B SP MCB |
| CPB32 | 32A 6kA Type B SP MCB |
| CPB40 | 40A 6kA Type B SP MCB |
| CPB50 | 50A 4.5kA Type B SP MCB |
| CPB63 | 63A 4.5kA Type B SP MCB |

Isolators



Double Pole Isolators

| | |
|---------------|---------------------------|
| CPD40 | 40A Double Pole Isolator |
| CPD63 | 63A Double Pole Isolator |
| CPD100 | 100A Double Pole Isolator |

RCDs



Double Pole RCD Devices

| | |
|----------------|--------------------------|
| CPR25 | 25A 30mA DP Type AC RCD |
| CPR40 | 40A 30mA DP Type AC RCD |
| CPR63 | 63A 30mA DP Type AC RCD |
| CPR80 | 80A 30mA DP Type AC RCD |
| CPR100 | 100A 30mA DP Type AC RCD |
| CPR100A | 100A 30mA DP Type A RCD |

RCBOs



RCBO Devices

| Type AC | Type A | |
|------------------|-------------------|------------------------|
| CPBR0606B | CPBR0606AB | 6A 6kA Type B SP RCBO |
| CPBR0610B | CPBR0610AB | 10A 6kA Type B SP RCBO |
| CPBR0616B | CPBR0616AB | 16A 6kA Type B SP RCBO |
| CPBR0620B | CPBR0620AB | 20A 6kA Type B SP RCBO |
| CPBR0632B | CPBR0632AB | 32A 6kA Type B SP RCBO |
| CPBR0640B | CPBR0640AB | 40A 6kA Type B SP RCBO |
| CPBR0650B | CPBR0650AB | 50A 6kA Type B SP RCBO |

RCBO Devices C Curve also available

Surge Kits



Surge Kits

| | |
|-------------------|---|
| T2C4011KIT | Surge 40KA 1+1 Protection Retro Fit Kit |
| T2C4020KIT | Surge 40KA 2+0 Protection Retro Fit Kit |
| T2C4010KIT | Surge 40KA 1+0 Protection Retro Fit Kit |

CONTACTUM

Circuit Protection

Contactors



Installation Contactors

| | |
|---------------------|------------------------|
| COA20-20/230 | 20A 230V 2N/O (1 Mod) |
| COA25-40/230 | 25A 230V 4N/O (2 Mods) |
| COA40-20/230 | 40A 230V 2N/O (3 Mods) |
| COA40-40/230 | 40A 230V 4N/O (3 Mods) |
| COA63-20/230 | 63A 230V 2N/O (3 Mods) |
| COA63-40/230 | 63A 230V 4N/O (3 Mods) |

Time Switches



Digital Timing Devices

| | |
|--------------|----------------------------------|
| TSD1T | 7 Day 24 Hour 1 Channel 2 Module |
| TSD2T | 7 Day 24 Hour 2 Channel 2 Module |
| TSD3 | 7 Day 24 Hour 1 Channel 1 Module |

Analogue Timing Devices

| | |
|--------------|----------------------------|
| TSAQ1 | 24 Hour 1 Channel 3 Module |
| TSAQ2 | 7 Day 1 Channel 3 Module |

Staircase Timing Device

| | |
|--------------|--------------------|
| TSSL1 | 1 Channel 1 Module |
|--------------|--------------------|

Bell Transformer & Sensor



Bell Transformer

| | |
|--------------|--------------------------------|
| TSBT2 | Bell Transformer 1A 8VA Output |
|--------------|--------------------------------|

Photo Electrical Light Sensor

| | |
|--------------|-----------------------|
| TSPE1 | 20A 230V 2N/O (1 Mod) |
|--------------|-----------------------|

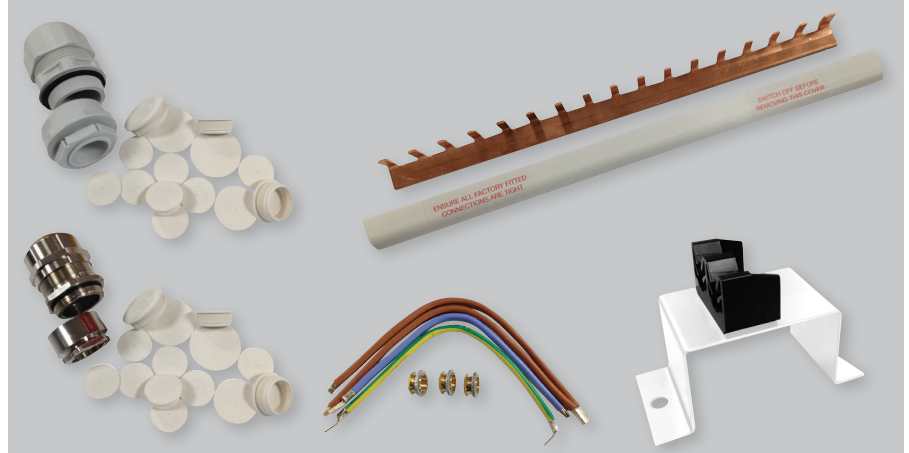
MCB Accessories



Locking Device

| | |
|--------------|--------------------------------|
| CPA10 | MCB/RCBO Toggle Locking Device |
| CPBBL | MCB Blank |

Accessories



Accessories

| | | | |
|--------------|-------------------------------|--------------|--|
| DCA01 | 1/4 Turn Camlock Accessory | DCA24 | Defender C/U Stacking & Link (DDS) Kit |
| DCA02 | Key Lock Camlock Accessory | DCA25 | Defender C/U Stacking & Link (DD) Kit |
| DCA20 | AMD3 Membrane Grommet Kit | DCA30 | Defender 14 Mod Spare Busbar and Cover |
| DCA21 | 40/32mm Tails Red Kit Metal | DCA31 | Defender 22 Mod Spare Busbar and Cover |
| DCA22 | 40/32mm Tails Red Kit Plastic | | |
| DCA23 | 25mm Tail Retention Bracket | | |



CONTACTUM

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