

# CONTACTUM



DEFENDER

## Defender Consumer Units

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A comprehensive range of single phase consumer units  
Compliant with BS7671 18th Edition Wiring Regulations  
Tested in accordance to BS EN 61439-3

# CONTACTUM

Quality by design

Established in 1936, Contactum is a proud British brand with a distinguished heritage in the electrical industry. For nearly a century, we have been a trusted name in the supply of wiring accessories, circuit protection devices, and control products across residential, commercial, and industrial sectors.

Our reputation has been built on a foundation of quality, safety, and a design-led approach, with a focus on delivering products that meet the unique demands of the UK market.

Offering the latest solution-led wiring accessories to award-winning consumer units and commercial switchgear, Contactum delivers reliable, specification-grade electrical solutions designed to meet the evolving needs of electricians, contractors, wholesalers, and specifiers.

We pride ourselves on combining performance, compliance, and visual appeal across our ranges, supported by robust technical expertise and responsive customer service.



To support our commitment to excellence, Contactum operates an ISO Integrated Management System, covering quality (ISO 9001), environmental (ISO 14001), and occupational health & safety (ISO 45001) standards. This ensures that every aspect of our operations – from product development to customer service – is underpinned by internationally recognised best practices.

This achievement highlights our continuous efforts to operate transparently, reduce environmental impact, and promote responsible business practices throughout our supply chain.

Further reinforcing our dedication to sustainability and corporate responsibility, Contactum has recently been awarded a medal-level rating by Eco Vadis, a leading global assessment platform for environmental, social, and ethical performance.

ecovadis



## alfanar

As part of the alfanar group, Contactum benefits from the backing of a global leader in electrical manufacturing, energy, and infrastructure. Headquartered in Riyadh, Saudi Arabia, alfanar brings world-class scale, engineering excellence, and advanced production capabilities to the partnership.

A large proportion of Contactum's product offering is manufactured at alfanar Industrial City – a cutting-edge 700,000 square metre facility in Riyadh. This ISO-certified complex is equipped with automated production lines, quality testing laboratories, and R&D centres, staffed by skilled professionals committed to delivering consistent quality and innovation across all markets.



By combining the local insight and agility of a UK-based brand with the scale, resources, and innovation of a global manufacturing group, Contactum remains uniquely positioned to serve the needs of the modern electrical market. Whether supporting new build developments, refurbishment projects, or infrastructure upgrades, Contactum continues to deliver dependable solutions trusted by professionals across the UK and beyond.

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When AMD2 of the 18<sup>th</sup> Edition of the wiring regulations was released in 2022, significant changes were implemented that impacted the decisions made by manufacturers, designers and installers of consumer units and incorporated circuit protection devices.

### (421.1.7) Arc Fault Detection

As a means of providing additional protection against fire caused by arc faults in AC final circuits, Arc Fault Detection Devices conforming to IEC/BS EN 62606 are required in certain circumstances and recommended in others. Contactum have introduced a range to support contractors in meeting these obligations.

### (443.4) Overvoltage (Surge) Protection

Although not a new addition to the wiring regulations, an emphasis has been put on the merits of installing SPDs and now these devices are becoming a standard inclusion within Consumer Units. Protection against transient overvoltages shall be provided where the consequence caused by the overvoltage could result in serious injury to, or loss of human life and significant financial or data loss.

For all other cases, protection against transient overvoltages shall be provided unless the owner of the installation declares it is not required due to any loss or damage being tolerable and they accept the risk of damage to equipment and any consequential loss.

### (531.3.3) RCD Selection

Depending on their behaviour in the presence of DC components and frequencies, an appropriate RCD shall be selected from the different types of RCDs that exist. With the growing number of electronic devices in the home, Type A RCDs are now seen as the general standard and Contactum provide Type A as standard on all RCCBs and RCBOs.

### (536.4.3.2) Overload Protection of RCCBs & Switches

Devices of this nature do not normally provide protection against overload. These devices shall now be protected by an appropriately rated overcurrent protective device upstream of the RCCB or switch and be installed according to the manufacturers instructions.

Overload protection of the switch or RCCB can now not be solely based on the use of diversity factors of the downstream circuits. Contactum provides clear InA ratings for every Consumer Unit and advise that this rating must not exceed the upstream OCPD rating.

## BS7671:2018 AMD3:2024

An amendment to the wiring regulations (AMD3) was introduced on the 31st July 2024. This amendment provides for the inclusion of two new definitions and one new regulation relating to the use of bidirectional and unidirectional circuit protection devices.

### Definitions:

#### + Bidirectional Protective Device

A protective device where it is intended by the manufacturer that a source of supply is connected to either or both sets of connection terminals

#### + Unidirectional Protective Device

A protective device designed by the manufacturer to allow a power source to be connected only to a specific set of connection terminals.

### Regulation 530.3.201

Selection and erection of equipment for protection shall take account of appropriate use of either a unidirectional protective device or a bidirectional device.

Product standards (as listed in appendix 1) for some protective devices, including RCCBs, RCBOs, circuit breakers and AFDDs, require these devices to be marked to indicate if they are unidirectional e.g. “in” and “out” or “Line” and “Load” arrows.

# Contactum Design Service for Circuit Protection

Our bespoke design service for factory-assembled units ensures a customised solution tailored to your project's needs.

## Tailored Circuit Protection Solutions

Our expert team will help you design the optimal configuration for your project.

Using both standard and non-standard Contactum devices and accessories, we supply fully assembled units ready for immediate installation.

If your project requires fully customised solutions or pre-fitted outgoing devices, our service offers:

- + Reduced on-site labour time
- + Seamless project continuity
- + Enhanced efficiency and reliability

## How it Works:

1. Contact our dedicated contractor sales team via the email below.
2. Discuss your requirements, agree on a design configuration, and confirm quantities.  
**(Minimum order quantities apply)**
3. Receive a tailored quotation based on your exact needs.
4. Place an order through one of our selected distributor partners.
5. We assemble and dispatch your boards—fully configured and ready for installation.

**Contact our  
Customer Service Team:**

Telephone:  
**0208 208 7419**

Email the contractors sales team:  
**[contractors@contactum.co.uk](mailto:contractors@contactum.co.uk)**

## Why Choose Our Design Service?

Our design service is ideal for all project applications, ensuring compliance, continuity, and peace of mind. We collaborate closely with M&E Consultants, Electrical Contractors, and Housing Developers to deliver efficient and seamless solutions.



- + Dedicated contractor sales team
- + Fast turnaround from enquiry to delivery
- + Reduced on-site labour costs
- + Minimised waste from packaging
- + No loose products on-site
- + Correctly configured boards for faster installation
- + Available for all circuit protection ranges

**CONTACTUM**  
Quality by design

# Choosing the Right Solution Without Compromise

At Contactum, we understand that different installations have different demands.

That's why we offer two distinct consumer unit solutions:

## Defender 1.0 and Defender 2.0

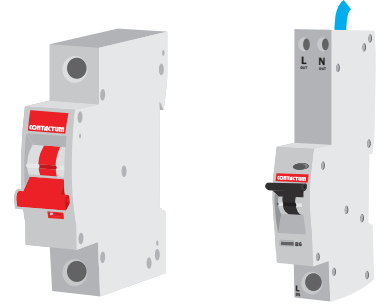
Each designed to meet specific needs while maintaining superior quality, compliance, and safety.

Both designs are supported with a full range 6kA circuit protection devices including:

**MCB's** B or C curve

**RCBO's** Single Pole or Switched Neutral with Bi-Directional power flow compatibility

**AFDD's** MCB or RCBO functionality



# Defender 1.0 Consumer Unit

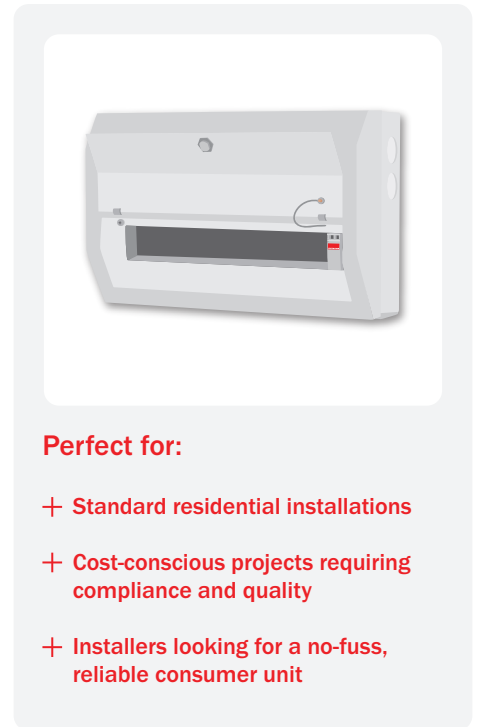
## Affordable Reliability Without Compromise

The Defender 1.0 consumer unit is engineered to provide a cost-effective solution while ensuring uncompromised quality, safety, and compliance. Developed to offer exceptional value, it delivers everything needed for a reliable installation without unnecessary extras.

- + **Superior Construction:** Built with high-quality materials for durability and longevity.
- + **Fully Compliant:** Meets BS EN 61439-3 and BS7671 standards for guaranteed safety.
- + **Essential Features:** Designed for straightforward installations with all the fundamental protections required.
- + **Value for Money:** A practical and cost effective choice without sacrificing performance.

### Perfect for:

- + **Standard residential installations**
- + **Cost-conscious projects requiring compliance and quality**
- + **Installers looking for a no-fuss, reliable consumer unit**



## Which One is Right for You?

Whether you need a cost-effective, compliant solution (Defender 1.0) or a premium, feature-rich consumer unit designed for modern living (Defender 2.0), we have the perfect fit for your project. **Turn to page 11 to discover Defender 2.0 in detail.**

Both Defender 1.0 and Defender 2.0 are built to last, protect, and perform—the choice comes down to your project's specific needs.

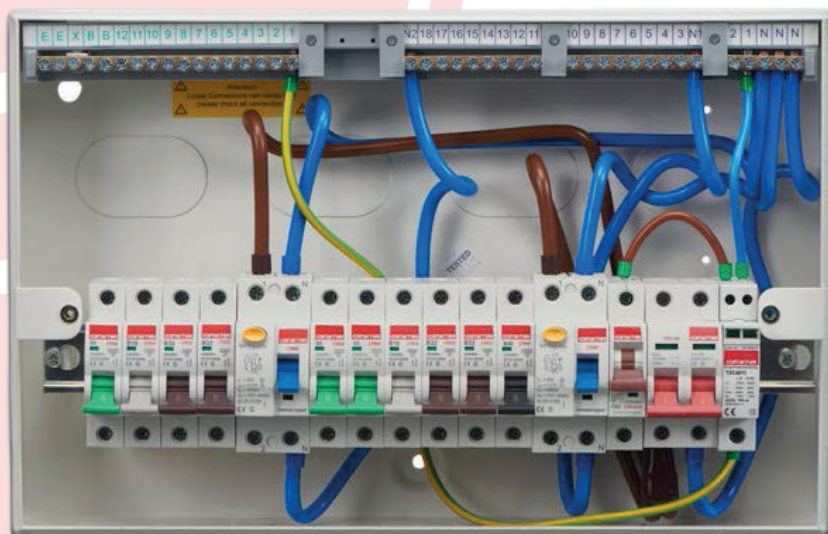
## Some of the most important aspects are featured here:

All Defender 1.0 Consumer Units are packed with enhanced features and benefits.

- + Tested by reputed third party in accordance with BS EN 61439-3: 2012 including Annex B
- + Up to 100A (InA) rated
- + Type A RCDs and RCBOs as standard
- + Stackable enclosures



# Features



## External Features



Secure hinge design



Locking kits available

- + **Stackable enclosure**  
Allowing unlimited configurations
- + **Comprehensive range**  
Comprising 10 different enclosures sizes
- + **Modern sleek design**  
Suitable for all installations
- + **Degree of protection IP4X**

## Internal Features

- + **Maximum cable space**  
Extensive number of cable entry points allowing easy installation
- + **Flexible Board Configuration**  
To enable optimal combination of RCD, MCB and RCBO use
- + **Up to 22 module board as standard**  
Combine boards to increase number of outgoing ways
- + **Pre-populated Configurations Available**
- + **Full metal din rail**  
For secure device fixing

# Defender 1.0

## Switch Disconnect Incomer Consumer Units Without & With Surge Protection

**2 Way:**  
63A CU ISO Incomer

**4 - 20 Way:**  
100A CU ISO Incomer



### Stand Alone SPD Enclosure

**Size:**  
0 Way

**Product Code:**  
DD006SPMS

### 63A Rating

**Size:**  
2 Way

**Product Code:**  
DD026MS

### 100A Rating

**Size:**

4 Way

6 Way

8 Way

10 Way

12 Way

14 Way

16 Way

18 Way

20 Way

Without SPD

**Product Code:**

DD041MS

DD061MS

DD101MS

DD121MS

DD141MS

DD161MS

DD181MS

DD201MS

With SPD

**Product Code:**

DD041SPMS

DD081SPMS

DD101SPMS

DD121SPMS

DD141SPMS

DD161SPMS

DD181SPMS

### Populated

10 Way Switch + 6 eRCBO  
+ 4 Blanks

DD101SPMS-P01

## RCD Incomer Consumer Units

**4 - 20 Way:**  
80A CU ISO Incomer  
+ 1 RCD Type A



### 80A Rating

**Size:**

4 Way

6 Way

10 Way

14 Way

16 Way

20 Way

**Product Code:**

DR048AMS

DR068AMS

DR108AMS

DR148AMS

DR168AMS

DR208AMS

## Split Load Consumer Units

**8 - 18 Way:**  
80A CU ISO Incomer  
+ 1 RCD Type A



### 80A Rating

Size:	Product Code:
8 Way	DS0818AMS
10 Way	DS1018AMS
12 Way	DS1218AMS
14 Way	DS1418AMS
18 Way	DS1818AMS

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

**6 - 16 Way:**  
80A CU ISO Incomer  
+ 2 RCD Type A



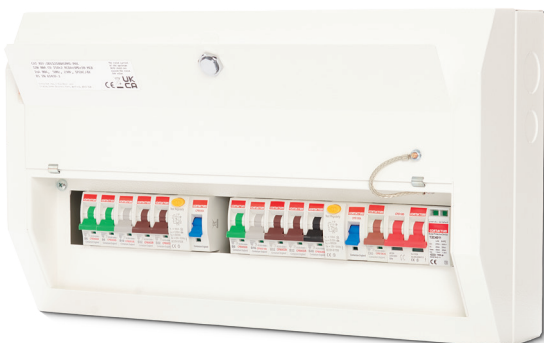
### 80A Rating

Size:	80A Rating	
	Without SPD	With SPD
6 Way	DDS06188AMS	DDS06188ASPMS
8 Way	DDS08188AMS	DDS08188ASPMS
10 Way	DDS10188AMS	DDS10188ASPMS
12 Way	DDS12188AMS	DDS12188ASPMS
14 Way	DDS14188AMS	DDS14188ASPMS
16 Way	DDS16188AMS	

### Populated

6 Way c/w + 6 MCBs	DDS06188AMS-P01	
8 Way c/w + 8 MCBs	DDS08188AMS-P01	
10 Way c/w + 10 MCBs	DDS10188AMS-P01	DDS10188ASPMS-P01
12 Way c/w + 10 MCBs	DDS12188AMS-P01	DDS12188ASPMS-P01
14 Way c/w + 10 MCBs	DDS14188AMS-P01	DDS14188ASPMS-P01
16 Way c/w + 10 MCBs	DDS16188AMS-P01	

Other populated configurations available on request



## Empty Enclosures

**4 - 22 Mod:**  
IP4X Mod Metal Encl  
c/w Earth/ Neutral



Size:	Product Code:
2 Mod	DME02MS
4 Mod	DME04MS
6 Mod	DME06MS
8 Mod	DME08MS
12 Mod	DME012MS
14 Mod	DME014MS
16 Mod	DME016MS
18 Mod	DME018MS
20 Mod	DME020MS
22 Mod	DME022MS

## Garage Unit & Shower Enclosures

**2 Way:**  
63A CU RCD  
Type A Incomer



**Garage Unit:**  
63A RCD Type A + 16A MCB  
+ 6A MCB

Size:	Product Code:
2 Way 63A	DR026AMS

Populated	
Garage Unit 63A	DR026AMS-P01
Shower Enc 0 Way 40A	DSPE1AMS
Shower Enc 1 Way 50A	DSPE2AMS
Shower Enc 2 Way 63A	DSPE3AMS

Other populated configurations available on request

**Shower Enclosures:**  
0 O/G Way 40A RCBO Type A

1 O/G Way 63A RCD Type A  
+ 50A MCB

2 O/G Way 63A RCD Type A  
+ 32A MCB + 16A MCB



## Rear Cable Top Entry Bracket

**12 - 22 Mod:**  
Rear Cable  
Top Entry Bracket



Size:	Product Code:
12 Mod	RCEB-TE-12MOD
14 Mod	RCEB-TE-14MOD
16 Mod	RCEB-TE-16MOD
18 Mod	RCEB-TE-18MOD
20 Mod	RCEB-TE-20MOD
22 Mod	RCEB-TE-22MOD

## Technical Data for Defender 1.0:

Standard	BS EN 61439-3: 2012 Including Annex ZB (16kA)
Max Current Rating (InA) *	100A
Rated Operating Voltage (Ue)	230V AC 50Hz
Short Circuit Withstand (Icw)	10kA 0.1 sec
Poles	1
Cable Entry/Exit (K0's)	20, 25 & 32mm
Material	1.2mm Sheet Steel
IP Protection Rating	IP2XC/IP4X

Impact Rating	IK05
RAL Colour	9016
Fixing	Surface
Terminal Torque (N.m)	1.5
Module Width	17.8mm

Please see product description for individual enclosure InA rating as each Consumer Unit differs. The upstream over current protection device must not exceed the enclosure InA rating.

# Choosing the Right Solution Without Compromise

At Contactum, we understand that different installations have different demands.

That's why we offer two distinct consumer unit solutions:

## Defender 1.0 and Defender 2.0

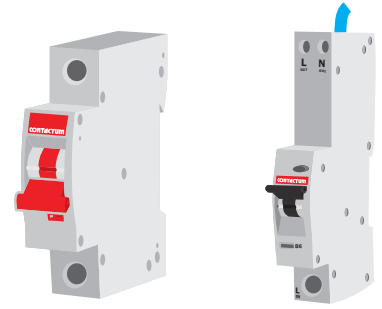
Each designed to meet specific needs while maintaining superior quality, compliance, and safety.

Both designs are supported with a full range 6kA circuit protection devices including:

**MCB's** B or C curve

**RCBO's** Single Pole or Switched Neutral with Bi-Directional power flow compatibility

**AFDD's** MCB or RCBO functionality




# Defender 2.0 Consumer Unit

## Designed for Modern Living & Effortless Installation

Building upon the robust foundation of the Defender 1.0, the Defender 2.0 consumer unit introduces an enhanced experience tailored for both the installer and end user. Thoughtfully designed with modern aesthetics, convenience, and innovation in mind, Defender 2.0 is the premium choice for contemporary electrical installations

- + **Installer-Friendly Features:** Time-saving innovations make installation smoother and faster.
- + **Enhanced Safety & Compliance:** Fully meets BS EN 61439-3 and BS7671 while offering additional safety features.
- + **Aesthetically Pleasing:** A sleek, modern design that blends seamlessly into modern living environments in both surface and flush mounted options.
- + **Expanded Range & Configurations:** Available in surface and flush mounted options, with single or dual-row configurations to accommodate different installation requirements.



**Perfect for:**

- + High-end multi-residential installations requiring superior technical performance
- + Installers seeking premium ease-of-installation features
- + Designers and homeowners who value both safety and stylish design

## Which One is Right for You?

Whether you need a cost-effective, compliant solution (Defender 1.0) or a premium, feature-rich consumer unit designed for modern living (Defender 2.0), we have the perfect fit for your project.

Both Defender 1.0 and Defender 2.0 are built to last, protect, and perform - the choice comes down to your project's specific needs.

## Some of the most important aspects are featured here:

All Defender 2.0 Consumer Units are packed with enhanced features and benefits.

- + Tested by reputed third party in accordance with BS EN 61439-3: 2012 including Annex ZB
- + Up to 100A (InA) rated
- + Type A RCDs and RCBOs as standard
- + Surface and Flush Mounted versions available
- + Up to 24 modules Single Row
- + Up to 44 modules Dual Row





## External Features

### + UV Powder coated paint

Colour finish RAL9016 seamlessly blending into today's modern residential installations

### + Extensive number of cable entry points

Allowing easy installation

### + Modern curved design with flush front lid

For the most demanding and visible installations blending in with today's modern living environments where the Consumer Unit is on show

### + Designed by Micieli

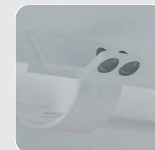


Locking kits available



### Retained screws

Fitted on the enclosure lid for ease of fixing and convenience, no more lost cover screws



### Unique hinged lid design

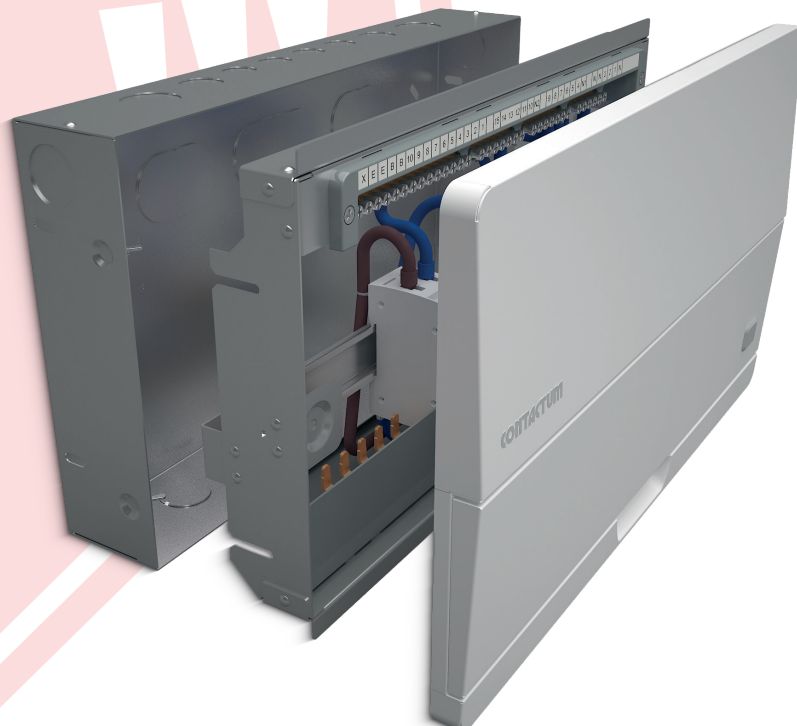
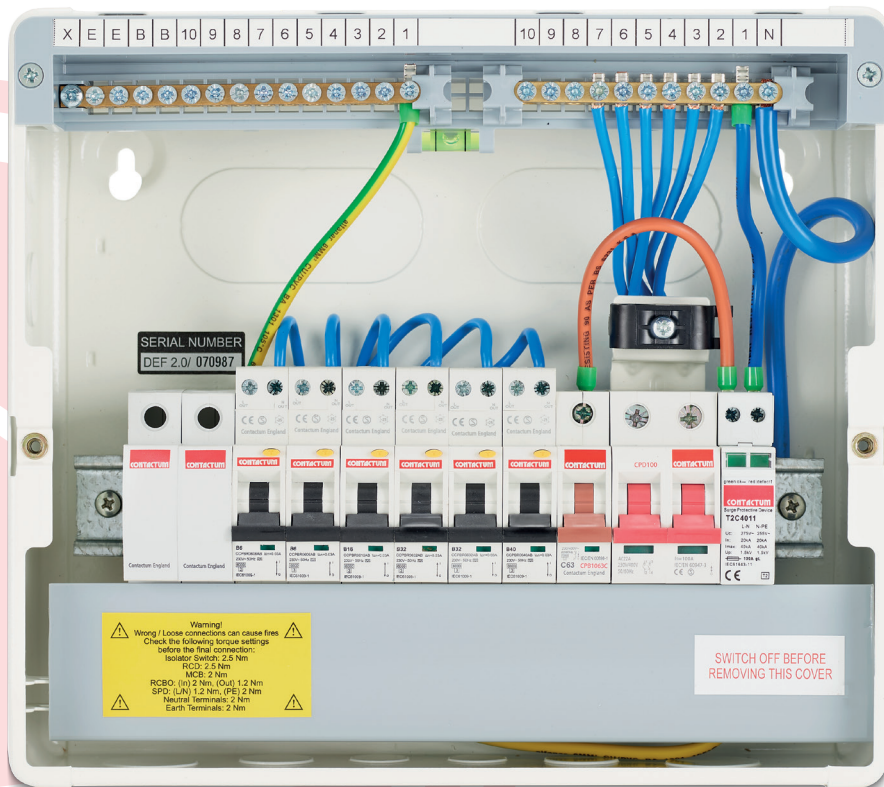
Lid can be latched open for convenience during installation tests and circuit identification



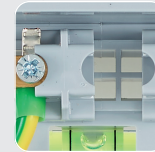
### Finger operated mechanical lid clip

Safety feature. Needs to be pressed to be opened

# NEW Generation



## Internal Features



### Spirit level

High quality spirit level.  
For added installation  
guidance (Surface  
Mounted version only)



### Cable clamp

Meter Tails Retention  
Clamp Standard on all  
Defender 2.0  
Consumer Units



### Type 2 SPD with MCB

Type 2 Surge Protection  
Kit with MCB and cables



### Type 2 Compact SPD

Type 2 Surge Protection  
Kit with cables, no  
MCB required



### Busbar cover

Easy secure clip-in  
busbar cover –  
For added safety,  
faster installation and  
maximum flexibility

## Flush Features

### + Full metal din rail

For secure device fixing

### + Flush front lid

Only protrudes 23mm when installed

### + Adjustable assembly frame

Allowing for different plasterboard  
depths

### + 2 Part flush design

Allowing for 1<sup>st</sup> fix and 2<sup>nd</sup> fix Installation

## Switch Disconnect Incomer Consumer Units

**2 - 10 Way:**  
63A  
CU ISO Incomer

**2 Way:**  
80A  
CU ISO Incomerr

**4 - 22 Way:**  
100A  
CU ISO Incomer

**14 - 42 Way:**  
100A Dual Row  
CU ISO Incomer



**Size:**

2 Way  
6 Way  
10 Way

**Populated**

10 Way  
+ 6 eRCBO + 4 Blank

### 63A Rating

Without SPD	With SPD
<b>Product Code:</b> SDD026MS	<b>Product Code:</b> SDD026SPMS
SDD066MS	
SDD106MS	

### 80A Rating

**Size:**

2 Way

<b>Product Code:</b> SDD028MS
----------------------------------

### 100A Rating

**Size:**

4 Way  
6 Way  
8 Way  
10 Way  
12 Way  
14 Way  
16 Way  
18 Way  
20 Way  
22 Way

**Dual Row**

6 + 8 Way (Total 14 way)  
14 + 16 Way (Total 30 way)  
20 + 22 Way (Total 42 way)

**Populated**

10 Way  
+ 6 eRCBO + 4 Blank

Without SPD	With SPD
<b>Product Code:</b> SDD041MS	<b>Product Code:</b> SDD041SPMS
SDD061MS	SDD061SPMS
SDD081MS	SDD081SPMS
SDD101MS	SDD101SPMS
SDD121MS	SDD121SPMS
SDD141MS	SDD141SPMS
SDD161MS	SDD161SPMS
SDD181MS	SDD181SPMS
SDD201MS	SDD201SPMS
SDD221MS	

SDD2141MS
SDD301MS
SDD421MS

SDD101MS-P01

RCD Incomer Consumer Units

**6 - 10 Way:**  
63A CU RCD  
Type A Incomer

**6 Way:**  
80A CU RCD  
Type A Incomer

**10 - 20 Way:**  
100A CU RCD  
Type A Incomer



63A Rating	
<b>Size:</b>	<b>Product Code:</b>
6 Way	SDR066AMS
10 Way	SDR106AMS

80A Rating	
<b>Size:</b>	<b>Product Code:</b>
6 Way	SDR068AMS

100A Rating	
<b>Size:</b>	<b>Product Code:</b>
10 Way	SDR101AMS
14 Way	SDR141AMS
16 Way	SDR161AMS
20 Way	SDR201AMS

Garage Unit

**2 Way:**  
63A CU RCD  
Type A Incomer

**Garage Unit:**  
63A RCD Type A + 16A MCB  
+ 6A MCB



63A Rating	
<b>Size:</b>	<b>Product Code:</b>
2 Way	SDR026AMS
<b>Populated</b>	
Garage Unit	SDR026AMS-P01

Other populated configurations available on request

Split Load Consumer Units

**8 - 16 Way:**  
63A CU ISO Incomer  
+ 1 RCD Type A

**8 - 20 Way:**  
100A CU ISO Incomer  
+ 1 RCD Type A



63A Rating	
<b>Size:</b>	<b>Product Code:</b>
8 Way	SDS0816AMS
12 Way	SDS1216AMS
14 Way	SDS1416AMS
16 Way	SDS1616AMS

100A Rating	
<b>Size:</b>	<b>Product Code:</b>
8 Way	SDS0811AMS
12 Way	SDS1211AMS
14 Way	SDS1411AMS
16 Way	SDS1611AMS
18 Way	SDS1811AMS
20 Way	SDS2011AMS

### Flexible High Integrity Split Load Dual RCD Consumer Units

**6 - 16 Way:**

63A CU ISO Incomer  
+ 2 RCD Type A

**6 - 18 Way:**

100A CU ISO Incomer  
+ 2 RCD Type A

**26 - 38 Way:**

100A Dual Row CU ISO Incomer  
+ 2 RCD Type A



#### 63A Rating

	Without SPD	With SPD
<b>Size:</b>	<b>Product Code:</b>	<b>Product Code:</b>
6 Way	SDDS06166AMS	
8 Way		SDDS08166ASPMS
10 Way	SDDS10166AMS	SDDS10166ASPMS
12 Way	SDDS12166AMS	SDDS12166ASPMS
14 Way	SDDS14166AMS	SDDS14166ASPMS
16 Way	SDDS16166AMS	
<b>Populated</b>		
6 Way + 6 MCB	SDDS06166AMS-P01	
10 Way + 10 MCB	SDDS10166AMS-P01	
12 Way + 10 MCB	SDDS12166AMS-P01	

Other populated configurations available on request

#### 100A Rating

	Without SPD	With SPD
<b>Size:</b>	<b>Product Code:</b>	<b>Product Code:</b>
6 Way	SDDS06111AMS	
8 Way		SDDS08111ASPMS
10 Way	SDDS10111AMS	SDDS10111ASPMS
12 Way	SDDS12111AMS	SDDS12111ASPMS
14 Way	SDDS14111AMS	SDDS14111ASPMS
16 Way	SDDS16111AMS	SDDS16111ASPMS
18 Way	SDDS18111AMS	
<b>Dual Row</b>		
12 + 14 Way (Total 26 way) + 2 RCD Type A	SDDS26111AMS	
18 + 20 Way (Total 38 way) + 2 RCD Type A	SDDS38111AMS	
<b>Populated</b>		
6 Way + 6 MCB	SDDS06111AMS-P01	
10 Way + 10 MCB	SDDS10111AMS-P01	SDDS10111ASPMS-P01
12 Way + 10 MCB	SDDS12111AMS-P01	SDDS12111ASPMS-P01
14 Way + 10 MCB	SDDS14111AMS-P01	SDDS14111ASPMS-P01
16 Way + 10 MCB	SDDS16111AMS-P01	SDDS16111ASPMS-P01
18 Way + 10 MCB	SDDS18111AMS-P01	

## Empty Enclosures

### 4 - 24 Mod:

IP2XC/IP4X Mod Metal Encl  
c/w Earth/ Neutral



Size:	Product Code:
4 Mod	SDME04MS
6 Mod	SDME06MS
8 Mod	SDME08MS
10 Mod	SDME010MS
12 Mod	SDME012MS
14 Mod	SDME014MS
16 Mod	SDME016MS
18 Mod	SDME018MS
20 Mod	SDME020MS
22 Mod	SDME022MS
24 Mod	SDME024MS

## Rear Cable Top Entry Bracket

### 12 - 24 Mod:

Rear Cable  
Top Entry Bracket



Size:	Product Code:
12 Mod	RCEB-TE-12M-D2
16 Mod	RCEB-TE-16M-D2
18 Mod	RCEB-TE-18M-D2
20 Mod	RCEB-TE-20M-D2
22 Mod	RCEB-TE-22M-D2
24 Mod	RCEB-TE-24M-D2

## Technical Data for Surface CU:

Standard	BS EN 61439-3: 2012 Including Annex ZB (16kA)
Max Current Rating (InA) *	100A
Rated Operating Voltage (Ue)	230V AC 50Hz
Short Circuit Withstand (Icw)	10kA 0.1 sec
Poles	1
Cable Entry/Exit (K0's)	20, 25 & 32mm
Material	1.2mm Sheet Steel
IP Protection Rating	IP2XC/IP4X

Impact Rating	IK05
RAL Colour	9016
Fixing	Surface
Terminal Torque (N.m)	1.5
Module Width	17.8mm

Please see product description for individual enclosure InA rating as each Consumer Unit differs.  
The upstream over current protection device must not exceed the enclosure InA rating.

## Switch Disconnect Incomer Consumer Units

**6 - 8 Way:**

80A Flush Mounted  
CU ISO Incomer

**8 - 18 Way:**

100A Flush Mounted  
CU ISO Incomer

**14 - 30 Way:**

100A Flush Mounted Dual Row  
CU ISO Incomer



**80A Rating**

**Size:**

6 Way

8 Way

**Product Code:**

FDD068MS

FDD088MS

**100A Rating**

**Size:**

8 Way

10 Way

12 Way

14 Way

16 Way

18 Way

**Product Code:**

FDD101MS

FDD141MS

FDD161MS

FDD181MS

**With SPD**

**Product Code:**

FDD081SPMS

FDD121SPMS

FDD141SPMS

FDD161SPMS

**Dual Row**

**Size:**

6 + 8 Way (Total 14 way)

14 + 16 Way (Total 30 way)

**Product Code:**

FDD2141MS

FDD301MS

## RCD Incomer Consumer Units

**6 Way:**

80A Flush Mounted  
CU RCD Type A Incomer

**10 - 18 Way:**

100A Flush Mounted  
CU RCD Type A Incomer



**80A Rating**

**Size:**

6 Way

**Product Code:**

FDR068AMS

**100A Rating**

**Size:**

10 Way

14 Way

16 Way

18 Way

**Product Code:**

FDR101AMS

FDR141AMS

FDR161AMS

FDR181AMS

## Flexible High Integrity Split Load Dual RCD Consumer Units

### 6 - 12 Way:

63A CU ISO Incomer  
+ 2 RCD Type A



### 63A Rating

	Without SPD	With SPD
<b>Size:</b>		
6 Way	<b>Product Code:</b> FDDS06166AMS	<b>Product Code:</b>
10 Way	FDDS10166AMS	FDDS10166ASPMS
12 Way	FDDS12166AMS	

Other populated configurations available on request

### 6 - 14 Way:

80A CU ISO Incomer  
+ 2 RCD Type A



### 80A Rating

	Without SPD	With SPD
<b>Size:</b>		
6 Way	<b>Product Code:</b> FDDS06188AMS	<b>Product Code:</b>
10 Way	FDDS10188AMS	FDDS10188ASPMS
12 Way	FDDS12188AMS	
14 Way	FDDS14188AMS	

## Technical Data for Flush CU:

Standard	BS EN 61439-3: 2012 Including Annex ZB (16kA)	Impact Rating	IK05
Max Current Rating (InA) *	100A	RAL Colour	9016
Rated Operating Voltage (Ue)	230V AC 50Hz	Fixing	Flush
Short Circuit Withstand (Icw)	10kA 0.1 sec	Terminal Torque (N.m)	1.5
Poles	1	Module Width	17.8mm
Cable Entry/Exit (K0's)	20, 25 & 32mm		
Material	1.2mm Sheet Steel	Please see product description for individual enclosure InA rating as each Consumer Unit differs. The upstream over current protection device must not exceed the enclosure InA rating.	
IP Protection Rating	IP2XC/IP4X		

## Isolators



### 63A Rating

**Product:**

63A Double Pole Isolator

**Product Code:**

CPD63

### 100A Rating

**Product:**

100A Double Pole Isolator

**Product Code:**

CPD100

### Technical Data for Isolator:

Standard	EN / IEC60947-3
Rated currents	63, 100A
Rated voltage	2 pole 230 AC 50/60Hz
Utilization category	AC-22A
Icw	12Ie, t=0.1s
Rated short-circuit making capacity Icn	20Ie, t=0.1s
Rated making & breaking capacity	3Ie, 1.05Ue, COS =0.65
Rated insulation voltage Ui	690V
Rated impulse withstand voltage Uimp	4000V
Electrical endurance	1500

Mechanical endurance	10000
Type of terminal	Lug type and Pin type
Terminal capacity	Cables up to 50mm <sup>2</sup>
Ambient temperature (oC)	-5oC to +40oC, Max.95% humidity
Storage temperature (oC)	-40~+75
Altitude (meters)	Max. 2.000
Protection degree	IP20
Installation	Mounting on 35mm DIN rail
Module Width	17.8mm per pole

## RCDs

### 30mA:

63A Type A  
2 Pole RCD

### 30mA and 100mA:

100A Type A  
2 Pole RCD



### 63A Rating

**Rating:**

30mA

**Product Code:**

CPR63A

### 100A Rating

**Rating:**

30mA

100mA

100mA + Time Delay

**Product Code:**

CPR100A

CPR1010A

CPR1010AT

### Technical Data for RCD:

Standard	Confirming to EN / IEC61008-1
Rated conditional short-circuit current, Inc	6kA
Protection	Residual current
Type	A
Rated current, In	63, 100
Number of poles	2(1+N)
Rated sensitivity currents, I Δn	30,100mA
Rated residual non-operating current	0.5 X I Δn
Rated impulse withstand voltage Uimp	6000V
Rated voltages 2pole	230VAC

Ambient temperature	-5oC to +40oC, Max. 95%humidity
Residual current disconnection time	≤0.1s
Rated residual current making & breaking	500A for In=25,40A
Capacity, IΔm	630A for In=63,80,100
Type of trip	Electro-magnetic release
Type of terminal	Lug type and Pin type
Terminal capacity	Cables up to 35mm <sup>2</sup>
Protection degree	IP20
Installation	35mm DIN rail

## MCB 1P 6kA B and C Curve

**3A - 63A:**  
1P 6kA B, C & D  
Curve MCB



Product Prefix:	Current Rating:	Trip Curve B or C:
CPB06	03	-
CPB06	06	-
CPB06	10	-
CPB06	16	-
CPB06	20	-
CPB06	25	-
CPB06	32	-
CPB06	40	-
CPB06	50	-
CPB06	63	-
<b>Example:</b> CPB06 <b>06 B</b>	<b>Add code:</b> <b>03 - 63</b> <b>For rating</b>	<b>Add code:</b> <b>B or C for</b> <b>Curve type</b>

### Technical Data for MCB:

Standard	Confirming to IEC/BS EN60898-1	Number of poles	1P
Breaking capacity	6kA	Type of trip	Thermal / magnetic release
Protection	Against overload and short circuit	Type of terminal	Lug type and Pin type
Rated current In	3, 6, 10, 16, 20, 25, 32, 40, 50, 63A	Terminal capacity	16mm <sup>2</sup> flexible or 25mm <sup>2</sup> rigid up to 25A ratings 25mm <sup>2</sup> flexible or 35mm <sup>2</sup> rigid for 32A to 63A ratings
Rated voltage	1pole 230 AC 50/60Hz, Rated insulation voltage Ui: 500V, Rated impulse withstand voltage Uimp: 6000V, Energy limiting class: 3	Protection degree	IP20
Ambient temperature	-50C to +40oC pursuant to BS EN / IEC60898	Installation	Mounting on 35mm DIN rail
Characteristic	Thermal operating limit: (1.13-1.45) x In Magnetic operating: B: (3-5) x In C: (5-10) x In D: (10-20) x In	Torque (N.m)	2
		Width	17.5mm per pole

## eRCBO 1P 6kA Compact B and C Curve

**6A - 40A:**  
6kA Type A B & C Curve  
SP eRCBO



Product Prefix:	Current Rating:	Trip curve B or C:
CCPBR06	06A	-
CCPBR06	10A	-
CCPBR06	16A	-
CCPBR06	20A	-
CCPBR06	25A	-
CCPBR06	32A	-
CCPBR06	40A	-
<b>Example:</b> CCPBR06 <b>20A B</b>	<b>Add code:</b> <b>06A - 50A</b> <b>For rating</b>	<b>Add code:</b> <b>B or C for</b> <b>Curve type</b>

### Technical Data for eRCBO:

Standard	IEC/BS EN61009	Characteristic	B,C
Breaking Capacity	6kA	Electrical endurance	10000
Number of poles	1P+N (1 module - fixed neutral)	Mechanical endurance	20000
Rated currents	6, 10, 16, 20, 25, 32, 40A	Ambient temperature	-50C to +40oC, Max. 95%humidity
Rated voltage	230VAC	Connection terminal	Flexible 16mm <sup>2</sup> , Rigid 25mm <sup>2</sup>
Rated Tripping Current	30mA	Type of terminal	Lug type and Pin type
Residual Operating Characteristics	A	Module Width	17.8mm /module
Residual Current Disconnection Time	≤0.1s	Torque N.m	2

## 1P+N Bi-Directional 6KA Compact eRCBO Curve B & C

### 6A - 40A:

6kA Type A B & C Curve  
1P+N 1 Mod eRCBO



Product Prefix:	Current Rating:	Trip curve B or C:	Model:
CPBR06	06A	--	N
CPBR06	10A	--	N
CPBR06	16A	--	N
CPBR06	20A	--	N
CPBR06	25A	--	N
CPBR06	32A	--	N
CPBR06	40A	--	N
<b>Example:</b> CPBR0640A B N	<b>Add code:</b> 06A - 40A For rating	<b>Add code:</b> B or C for Curve type	

\*2 Pole eRCBO's available. Please see the three phase product range.

### Technical Data for eRCBO:

Standard	BS EN / IEC 61009	Characteristic	B,C
Breaking Capacity	6kA	Electrical endurance	10000
Number of poles	1P+N (1 module – switched neutral)	Mechanical endurance	20000
Rated currents	6, 10, 16, 20, 25, 32, 40A	Ambient temperature	-5oC to +40oC, Max. 95%humidity
Rated voltage	230VAC	Connection terminal	Flexible 16mm <sup>2</sup> , Rigid 25mm <sup>2</sup>
Rated Tripping Current	30mA	Type of terminal	Lug type and Pin type
Residual Operating Characteristics	A	Module Width	17.8mm /module
Residual Current Disconnection Time	≤0.1s	Torque N.m	2

## AFDD 6kA MCB or RCBO B and C Curve

### 6A - 40A:

6kA Type A B & C Curve  
1 Mod AFDD RCBO and MCB



Product Prefix:	Function:	kA Rating:	Current Rating:	Trip curve B or C:	Model:
AFD	-	06	06A	-	-1
AFD	-	06	10A	-	-1
AFD	-	06	16A	-	-1
AFD	-	06	20A	-	-1
AFD	-	06	25A	-	-1
AFD	-	06	32A	-	-1
AFD	-	06	40A	-	-1
	<b>Add code:</b> B for MCB or R for RCBO		<b>Add code:</b> 06A - 40A For rating	<b>Add code:</b> B or C for Curve type	

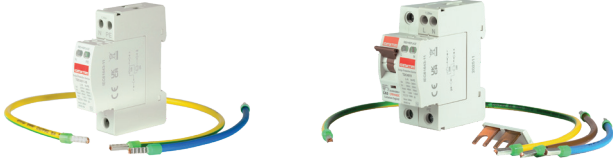
Example: AFD R 06 25A B -1

### Technical Data for AFDD

Standard	IEC/BS EN 62606, IEC/BS EN 61009-1	Characteristic	B,C
Breaking Capacity	6kA	Electrical endurance	4000
Number of poles	1P+N (1 module)	Mechanical endurance	20000
Rated currents	6, 10, 16, 20, 25, 32, 40A	Ambient temperature	-5oC to +40oC, Max. 95%humidity
Rated voltage	230VAC	Connection terminal	Flexible 16mm <sup>2</sup> , Rigid 25mm <sup>2</sup>
Rated Tripping Current	30mA	Type of terminal	Lug type and Pin type
Residual Operating Characteristics	A	Module Width	17.8mm /module
Residual Current Disconnection Time	≤0.1s	Torque N.m	2

## Defender Consumer Units

### Surge Arrestor



Product:	Product Code:
Surge 40kA 1+1 Type 2 SPD Retro Fit Kit	T2C4011KIT
Surge 40kA 1+1 Type 2 Compact SPD Kit	T2C4011-BKIT

### Contactors



Product:	Product Code:
20A 230V 1N/1NC (1 Mod)	COA20-11/230
20A 230V 2NO (1 Mod)	COA20-20/230
25A 230V 4NC (2 Mod)	COA25-04/230
25A 230V 4NO (2 Mods)	COA25-40/230
40A 230V 2NO (3 Mods)	COA40-20/230
40A 230V 4NO (3 Mods)	COA40-40/230
63A 230V 2NO (3 Mods)	COA63-20/230
63A 230V 4NO (3 Mods)	COA63-40/230
63A 230V AC/DC 4NO (3 Mods)	COD63-40/230

### Timers & Bell Transformers



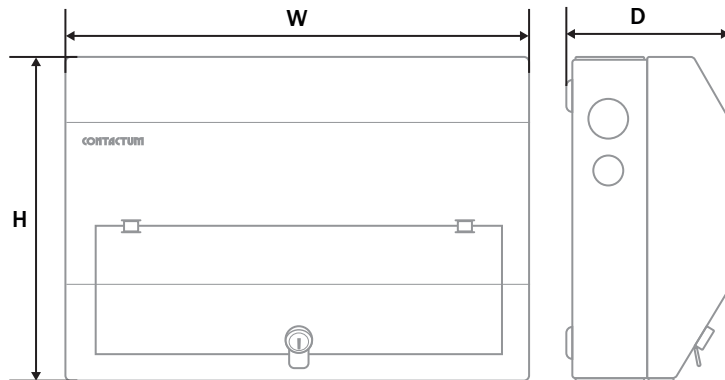
Product:	Product Code:
7Day/24Hr Digital Timer 1 Ch 2 Mod	TSD1T
24HR Analogue Timer 1 Ch 16A Resist	TSDAS1
Bell Transformer 1A 8VA Output	TSBT2

### Accessories



Product:	Product Code:
MCB Blank	CPBBL
¼ Turn Camlock Accessory	DCA01
Key Lock Camlock Accessory	DCA02
Pack of 10 MCB/RCBO Toggle Locking Device (New Design)	DCA10
Pack of 10 AMD3 33mm Membrane Grommet	DCA19
AMD3 Membrane Grommet Kit	DCA20
40/32mm Tails Red Kit Metal	DCA21
40/32mm Tails Red Kit Plastic	DCA22
Defender 1.0 C/U Stacking & Link (DDS) Kit	DCA24
Defender 1.0 C/U Stacking & Link (DD) Kit	DCA25
2.5-50mm <sup>2</sup> Earth Cable Connector	DCA26
Defender C/U 14 Mod Spare Busbar and Cover	DCA30
Defender C/U 22 Mod Spare Busbar and Cover	DCA31

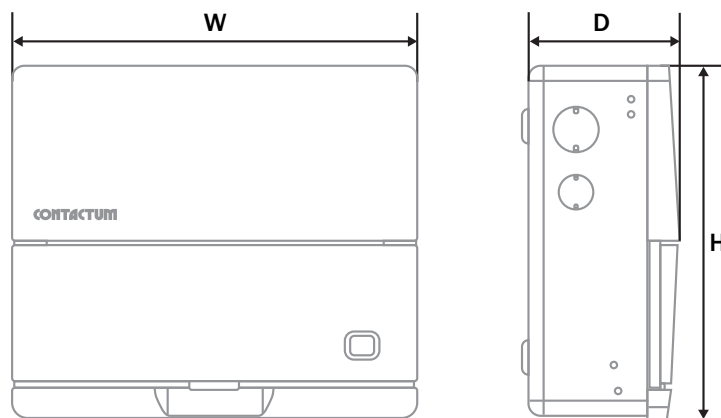
# Dimensions



## Defender 1.0 Dimensions

Allow 2 modular ways for each Switch Disconnecter or RCD and allow 1 modular way for each MCB, RCBO or AFDD

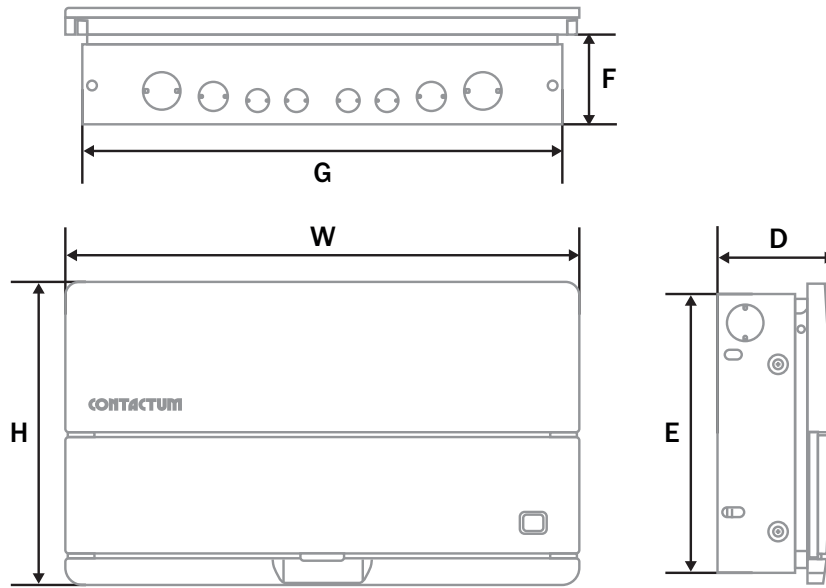
Dimensions	2 Mod	4 Mod	6 Mod	8 Mod	12 Mod	14 Mod	16 Mod	18 Mod	20 Mod	22 Mod
Height (H) mm	260	260	260	260	260	260	260	260	260	260
Width (W) mm	114	150	186	222	294	330	366	402	438	474
Depth (D) mm	130	130	130	130	130	130	130	130	130	130



## Surface Mounted Defender 2.0 Dimensions

Allow 2 modular ways for each Switch Disconnecter or RCD and allow 1 modular way for each MCB, RCBO or AFDD

Dimensions	4 Mod	6 Mod	8 Mod	10 Mod	12 Mod	14 Mod	16 Mod	16 Mod	18 Mod	20 Mod	22 Mod	24 Mod	32 Mod	44 Mod
Height (H) mm	262	262	262	262	262	262	262	524	262	262	262	262	524	524
Width (W) mm	155	227	227	299	299	371	371	227	407	443	479	515	371	479
Depth (D) mm	114	114	114	114	114	114	114	114	114	114	114	114	114	114
Dual Row								DR					DR	DR



## Flush Mounted Defender 2.0 Dimensions

Allow 2 modular ways for each Switch Disconnector or RCD and allow 1 modular way for each MCB, RCBO or AFDD

Dimensions	8 Mod	12 Mod	16 Mod	16 Mod	18 Mod	20 Mod	32 Mod
Height (H) mm	262	262	524	262	262	262	524
Width (W) mm	299	371	299	443	479	515	443
Depth (D) mm	100	100	100	100	100	100	100
Recessed Height (E) mm	242	242	508	242	242	242	508
Recessed Width (G) mm	264	336	264	408	444	480	408
Recessed Depth (F) mm	77	77	77	77	77	77	77
Dual Row			DR				DR

## Technical Data for Consumer Units

Standard	BS EN 61439-3:2012 Including Annex ZB (16kA)
Max Current Rating (InA) *	100A
Rated Operating Voltage (Ue)	230V AC 50Hz
Short Circuit Withstand (Icw)	10kA 0.1 sec
Poles	1
Cable Entry/Exit (KO's)	20, 25 & 32mm
Material	1.2mm Sheet Steel
IP Protection Rating	IP2XC/IP4X
Impact Rating	IK05
RAL Colour	9016
Fixing	Surface & Flush (Enclosure type dependant)
Terminal Torque (N.m)	1.5
Module Width	17.8mm

Please see product description for individual enclosure InA rating as each Consumer Unit differs. The upstream over current protection device must not exceed the enclosure InA rating.



TYPE TEST CERTIFICATE



**COMPLETE TYPE TESTS**  
No B25-21-AV-01E\_FDDsv1-CERT

Applicant	<b>Contactum Ltd</b> 2 Blackmoor Lane, Croxley Green Business Park, Watford London WD18 8GA, United Kingdom
Manufacturer	<b>Alfanar Electrical Systems</b> Madinet alfanar, 3 <sup>rd</sup> Industrial City P.O. Box 564, Riyadh 11383, Saudi Arabia
Product	<b>Consumer Units FDDS Defender 2.0</b> Designation: Contactum Defender 2.0 Main ratings: Rated Current: 80 A Rated Insulation Voltage: 400 V Rated Operation Voltage: 230 V Rated Frequency: 50 Hz Rated Impulse Voltage: 4 kV
Standard	Fulfills the type-test requirements of: <b>BS EN 61439-3:2012 Edition 1.0</b> Clauses 10.2.2 - 10.2.3.1 - 10.2.3.2 - 10.2.6 - 10.2.7 - 10.3 - 10.4 - 10.5.2 - 10.5.3 - 10.6 - 10.7 - 10.8 - 10.9.2 - 10.9.3 - 10.10 - 10.11 - Annex ZB 16 kA with Fuse - 10.12 - 10.13 Test results are described in the following documents: Type test report No: <b>B25-21-AV-01E_FDDsv1</b>
Certificate issued on	<b>6<sup>th</sup> September 2021</b>

Electronic signature


Luis Martínez Cancela  
Head of Electrical Equipment Laboratory



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TYPE TEST CERTIFICATE




**COMPLETE TYPE TESTS**  
No B25-21-AV-01E\_SDDsv1-CERT

Applicant	<b>Contactum Ltd</b> 2 Blackmoor Lane, Croxley Green Business Park, Watford London WD18 8GA, United Kingdom
Manufacturer	<b>Alfanar Electrical Systems</b> Madinet alfanar, 3 <sup>rd</sup> Industrial City P.O. Box 564, Riyadh 11383, Saudi Arabia
Product	<b>Consumer Units SDDS Defender 2.0</b> Designation: Contactum Defender 2.0 Main ratings: Rated Current: 100 A Rated Insulation Voltage: 400 V Rated Operation Voltage: 230 V Rated Frequency: 50 Hz Rated Impulse Voltage: 4 kV
Standard	Fulfills the type-test requirements of: <b>BS EN 61439-3:2012 Edition 1.0</b> Clauses 10.2.2 - 10.2.3.1 - 10.2.3.2 - 10.2.6 - 10.2.7 - 10.3 - 10.4 - 10.5.2 - 10.5.3 - 10.6 - 10.7 - 10.8 - 10.9.2 - 10.9.3 - 10.10 - 10.11 - Annex ZB 16 kA with Fuse - 10.12 - 10.13 Test results are described in the following documents: Type test report No: <b>B25-21-AV-01E_SDDsv1</b>
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Applicant	<b>Contactum Ltd</b> 2 Blackmoor Lane, Croxley Green Business Park, Watford London WD18 8GA, United Kingdom
Manufacturer	<b>Alfanar Electrical Systems</b> Madinet alfanar, 3 <sup>rd</sup> Industrial City P.O. Box 564, Riyadh 11383, Saudi Arabia
Product	<b>Consumer Units FDD Defender 2.0</b> Designation: Contactum Defender 2.0 Main ratings: Rated Current: 80 A Rated Insulation Voltage: 400 V Rated Operation Voltage: 230 V Rated Frequency: 50 Hz Rated Impulse Voltage: 4 kV
Standard	Fulfills the type-test requirements of: <b>BS EN 61439-3:2012 Edition 1.0</b> Clauses 10.2.2 - 10.2.3.1 - 10.2.3.2 - 10.2.6 - 10.2.7 - 10.3 - 10.4 - 10.5.2 - 10.5.3 - 10.6 - 10.7 - 10.8 - 10.9.2 - 10.9.3 - 10.10 - 10.11 - Annex ZB 16 kA with Fuse - 10.12 - 10.13 Test results are described in the following documents: Type test report No: <b>B25-21-AV-01E_FDDv1</b>
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Manufacturer	<b>Alfanar Electrical Systems</b> Madinet alfanar, 3 <sup>rd</sup> Industrial City P.O. Box 564, Riyadh 11383, Saudi Arabia
Product	<b>Consumer Units SDD Defender 2.0</b> Designation: Contactum Defender 2.0 Main ratings: Rated Current: 100 A Rated Insulation Voltage: 400 V Rated Operation Voltage: 230 V Rated Frequency: 50 Hz Rated Impulse Voltage: 4 kV
Standard	Fulfills the type-test requirements of: <b>BS EN 61439-3:2012 Edition 1.0</b> Clauses 10.2.2 - 10.2.3.1 - 10.2.3.2 - 10.2.6 - 10.2.7 - 10.3 - 10.4 - 10.5.2 - 10.5.3 - 10.6 - 10.7 - 10.8 - 10.9.2 - 10.9.3 - 10.10 - 10.11 - Annex ZB 16 kA with Fuse - 10.12 - 10.13 Test results are described in the following documents: Type test report No: <b>B25-21-AV-01E_SDDv1</b>
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# Defender Consumer Units

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# CONTACTUM

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@Contactumltd



Contactum Ltd



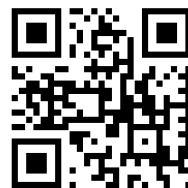
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DEF2B - RevLev07



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