

# CONTACTUM

Defender 2.0  
Consumer  
Units



DEFENDER  
2.0



# CONTACTUM

Contactum, founded in 1936 we have always based our values on Quality & Safety underpinned with the knowledge that design is everything. With the technical expertise of alfanar, our parent company, we have continued this tradition with the development of Defender 2.0 and added some new benchmarks of exceptional aesthetics to seamlessly blend in to modern living environments coupled with outstanding features and benefits to aid designers, installers and specifiers.



# CONTACTUM Defender 2.0

## NEW Generation of Consumer Units

The Defender 2.0 range of Consumer Units has been stylishly designed to seamlessly blend in with today's modern living environments whilst at the same time offering enhanced safety and complete compliance with the 18th Edition wiring regulations BS7671:2018. The new range now includes a dual row board in surface mount and we now offer flush mount consumer units. Pre-Populated with MCBs and factory fitted Surge Protection are also available along with an extensive range of accessories. We have also added new devices to our range including Compact RCBOs and Single Module AFDD/RCBO combination devices for enhanced protection.

All Defender 2.0 Consumer Units are packed with enhanced features and benefits some of the most important aspects are featured here –

- Tested by reputed third party in accordance with BS EN 61439-3: 2012 including Annex ZB
- Up to 100A (InA) rating
- Type A RCDs and RCBOs as standard
- Surface and Flush Mounted versions available
- Up to 24 modules single row
- 44 modules dual rows



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# 18th Edition

## Significant Changes

When the 18th Edition of the wiring regulations was released in 2018 there were significant changes that impacted the decisions made by manufacturers, designers and installers of consumer units and the 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 EN 62606 are recommended and Contactum have introduced a range to support this change.

### **(443.4) Surge Protection**

Protection against transient over-voltages shall be provided where consequences caused by over-voltages could result in serious injury to or loss of human life.... 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.

### **(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 RCD 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.





# CONTACTUM

## Circuit Protection Design Service

The Contactum design service for circuit protection allows you to create a bespoke design for factory assembled units to be supplied for your project. If your project requires a fully customised solution or specific outgoing devices pre-fitted then this service will be of benefit. It enables a highly reduced labour time on site while also ensuring continuity across your project.

Our team can help you to build the best configuration to suit your project. We will then assemble your boards ready for installation. Using standard and non standard Contactum devices and accessories we can supply your units fully assembled. All you need to do is contact our dedicated contractor sales team via the email address below. Discuss the requirement, agree a design configuration and confirm the quantities\*. We can then provide a unique quotation for your exact requirements. Once agreed and an order is placed via one of our selected distributor partners we will assemble and dispatch your boards ready for installation.

The design service is perfect for all project applications and we work closely with M&E Consultants, Electrical Contractors and Housing Developers for peace of mind guaranteed compliance and continuity across the project.

\*Minimum order quantities apply

**Dedicated Contractor Sales Team**

**Fast turnaround time from enquiry to delivery**

**Faster installation time**

**Reduced labour costs**

**Reduced waste from packaging**

**No loose product on site**

**Boards correctly configured**

**Available for all circuit protection ranges**

Call our Customer Service Team on Tel: 0208 208 7419 or email the Contractors Sales Team on [contractors@contactum.co.uk](mailto:contractors@contactum.co.uk)



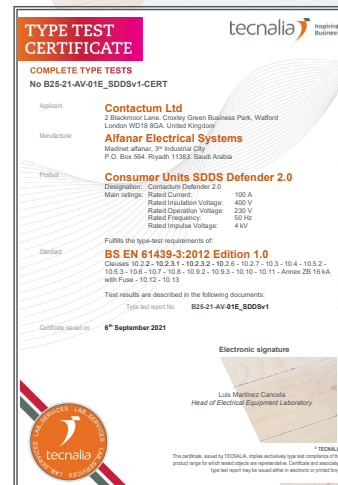


# Defender 2.0

## Safe and Stylishly Designed Consumer Units

### NEW Generation of Surface & Flush Consumer Units

- 18th Edition Compliance
- Type test certificate issued by third party
- Compliant with BS EN 61439-3 including Annex ZB
- Up to 100A without Derating
- Icw 10kA 0.1 sec
- Icc 6kA and 10kA (Outgoings)
- Type A eRCBO complying to BS EN 61009-1
- Type A RCD complying to BS EN 61008-1
- MCB complying to BS EN 60898
- Surface and Flush Mounted versions available
- Up to 24 modules single row
- 44 modules dual rows
- Designed by Micieli



#### Four-point fixing

For a more secure installation



#### Surge Protection Device

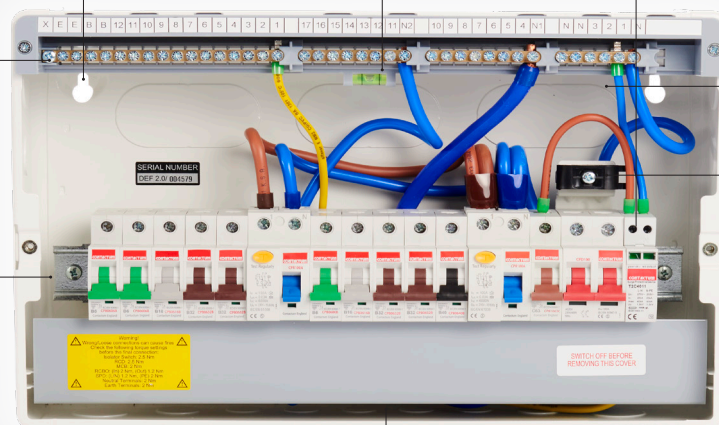
Available in kit form or pre-fitted

#### Main Earth terminal accepts

25mm<sup>2</sup> - Ideal for where sub-mains have been run in multicore cables, common on large multi-residential high-rise installations.

#### Full metal din rail

For secure device fixing



#### Extensive cabling space

For a neater installation

#### Meter Tails Retention

Clamp Standard on all Defender 2.0 consumer units

**Snappable copper floating busbar with easy secure clip-in busbar cover** – For faster installation and maximum flexibility





## Installation Features

**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

**Edge protection grommet strip supplied** - For a compliant and professional finish on your rear cable entry knockouts, supplied with each consumer unit as standard

**Spirit level** - For added installation guidance (surface mounted version only)

**UV Powder coated paint** - Colour finish RAL9016 seamlessly blending into today's modern residential installations

**Extensive number mixed size knockouts** - Strategically placed allowing easy installation of cable entry and exit points

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

**Extensive number of cable entry points**  
allowing easy installation.

## 2 Part Flush Design

allowing for 1st fix and 2nd fix Installation

## Unique lid design

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

**Locking kits available**

**Flush front lid only protrudes 23mm when installed**

## Adjustable assembly frame

allowing for different plasterboard depths



# Defender 2.0 Consumer Units

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



### 100A Rated Consumer Unit

Without SPD	With SPD
SDDS06111AMS	6Way 100A CU ISO Incomer + 2 RCD Class A
SDDS10111AMS	SDDS10111ASPMS 10Way 100A CU ISO Incomer + 2 RCD Class A
SDDS12111AMS	SDDS12111ASPMS 12Way 100A CU ISO Incomer + 2 RCD Class A
SDDS14111AMS	SDDS14111ASPMS 14Way 100A CU ISO Incomer + 2 RCD Class A
SDDS16111AMS	SDDS16111ASPMS 16Way 100A CU ISO Incomer + 2 RCD Class A
SDDS18111AMS	18Way 100A CU ISO Incomer + 2 RCD Class A
SDDS38111AMS	38Way 100A Dual Row CU ISO Incomer + 2 RCD Class A

### Populated

SDDS06111AMS-P01	6Way 100A CU ISO Incomer + 2 RCD Class A + 6 MCB
SDDS10111AMS-P01	SDDS10111ASPMS-P01 10Way 100A CU ISO Incomer + 2 RCD Class A + 10 MCB
SDDS12111AMS-P01	SDDS12111ASPMS-P01 12Way 100A CU ISO Incomer + 2 RCD Class A + 10 MCB
SDDS14111AMS-P01	SDDS14111ASPMS-P01 14Way 100A CU ISO Incomer + 2 RCD Class A + 10 MCB
SDDS16111AMS-P01	SDDS16111ASPMS-P01 16Way 100A CU ISO Incomer + 2 RCD Class A + 10 MCB
SDDS18111AMS-P01	18Way 100A CU ISO Incomer + 2 RCD Class A + 10 MCB

### 63A Rated Consumer Unit

SDDS06166AMS	6Way 63A CU ISO Incomer + 2 RCD Class A
SDDS10166AMS	10Way 63A CU ISO Incomer + 2 RCD Class A
SDDS12166AMS	12Way 63A CU ISO Incomer + 2 RCD Class A

### Populated

SDDS06166AMS-P01	6Way 63A CU ISO Incomer + 2 RCD Class A + 6 MCB
SDDS10166AMS-P01	10Way 63A CU ISO Incomer + 2 RCD Class A + 10 MCB
SDDS12166AMS-P01	12Way 63A CU ISO Incomer + 2 RCD Class A + 10 MCB

Other populated configuration available on request

## 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 (KO'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.





## SURFACE Switch Disconnect Incomer Consumer Units



Without SPD	With SPD
SDD026MS	2Way 63A CU ISO Incomer
	SDD041SPMS 4Way 100A CU ISO Incomer
SDD061MS	6Way 100A CU ISO Incomer
SDD101MS	SDD101MS-P01 10Way 100A CU ISO Incomer
SDD141MS	14Way 100A CU ISO Incomer
SDD161MS	16Way 100A CU ISO Incomer
SDD181MS	18Way 100A CU ISO Incomer
SDD201MS	20Way 100A CU ISO Incomer
SDD221MS	22Way 100A CU ISO Incomer
SDD421MS	42Way 100A Dual Row CU ISO Incomer

### Populated

SDD101MS-P01	10Way 100A CU ISO Incomer + 6 eRCBO + 4 BLANK
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Other populated configurations available upon request.

## SURFACE Split Load Consumer Units



SDS0816AMS	8Way 63A CU ISO Incomer + 1 RCD Class A
SDS0811AMS	8Way 100A CU ISO Incomer + 1 RCD Class A
SDS1211AMS	12Way 100A CU ISO Incomer + 1 RCD Class A
SDS1411AMS	14Way 100A CU ISO Incomer + 1 RCD Class A
SDS1611AMS	16Way 100A CU ISO Incomer + 1 RCD Class A
SDS1811AMS	18Way 100A CU ISO Incomer + 1 RCD Class A
SDS2011AMS	20Way 100A CU ISO Incomer + 1 RCD Class A



# Defender 2.0 Consumer Units

## SURFACE RCD Incomer Consumer Units



SDR066AMS	6Way 63A CU RCD Class A Incomer
SDR068AMS	6Way 80A CU RCD Class A Incomer
SDR101AMS	10Way 100A CU RCD Class A Incomer
SDR141AMS	14Way 100A CU RCD Class A Incomer

## SURFACE Garage Unit



### Unpopulated

SDR026AMS	2Way 63A CU RCD Class A Incomer
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### Populated

SDR026AMS-P01	Garage Unit 63A RCD Class A + 16A MCB + 6A MCB
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Other populated configurations available upon request.

## 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 (KO'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.





## SURFACE Empty Enclosures



SDME04MS	IP2XC/IP4X 4 Mod Metal Encl c/w Earth/Neutral
SDME08MS	IP2XC/IP4X 8 Mod Metal Encl c/w Earth/Neutral
SDME012MS	IP2XC/IP4X 12 Mod Metal Encl c/w Earth/Neutral
SDME016MS	IP2XC/IP4X 16 Mod Metal Encl c/w Earth/Neutral
SDME018MS	IP2XC/IP4X 18 Mod Metal Encl c/w Earth/Neutral
SDME020MS	IP2XC/IP4X 20 Mod Metal Encl c/w Earth/Neutral
SDME022MS	IP2XC/IP4X 22 Mod Metal Encl c/w Earth/Neutral
SDME024MS	IP2XC/IP4X 24 Mod Metal Encl c/w Earth/Neutral

## SURFACE Rear Cable Top Entry Bracket



RCEB-TE-12M	Rear Cable Top Entry Bracket - 12 Mod
RCEB-TE-16M	Rear Cable Top Entry Bracket - 16 Mod
RCEB-TE-18M	Rear Cable Top Entry Bracket - 18 Mod
RCEB-TE-20M	Rear Cable Top Entry Bracket - 20 Mod
RCEB-TE-22M	Rear Cable Top Entry Bracket - 22 Mod
RCEB-TE-24M	Rear Cable Top Entry Bracket - 24 Mod



# Defender 2.0 Consumer Units

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



### 80A Rated Consumer Unit

Without SPD      With SPD

FDDS06188AMS	6Way 80A CU ISO Incomer + 2 RCD Class A
FDDS10188AMS	FDDS10188ASPMS 10Way 80A CU ISO Incomer + 2 RCD Class A
FDDS12188AMS	12Way 80A CU ISO Incomer + 2 RCD Class A
FDDS14188AMS	14Way 80A CU ISO Incomer + 2 RCD Class A

### 63A Rated Consumer Unit

Without SPD      With SPD

FDDS06166AMS	6Way 63A CU ISO Incomer + 2 RCD Class A
FDDS10166AMS	10Way 63A CU ISO Incomer + 2 RCD Class A
FDDS12166AMS	12Way 63A CU ISO Incomer + 2 RCD Class A

Populated configurations available upon request.

## FLUSH Switch Disconnect Incomer Consumer Units



Without SPD      With SPD

FDD068MS	6Way 80A Flush Mounted CU ISO Incomer
FDD088SPMS	8Way 80A Flush Mounted CU ISO Incomer
FDD108MS	10Way 80A Flush Mounted CU ISO Incomer
FDD128SPMS	12Way 80A Flush Mounted CU ISO Incomer
FDD148MS	FDD148SPMS 14Way 80A Flush Mounted CU ISO Incomer
FDD168MS	FDD168SPMS 16Way 80A Flush Mounted CU ISO Incomer
FDD188MS	18Way 80A Flush Mounted CU ISO Incomer

### Technical Data for Flush CU

Standard	BS EN 61439-3: 2012 Including Annex ZB (16kA)
Max Current Rating (InA) :	80A
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	Flush
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.





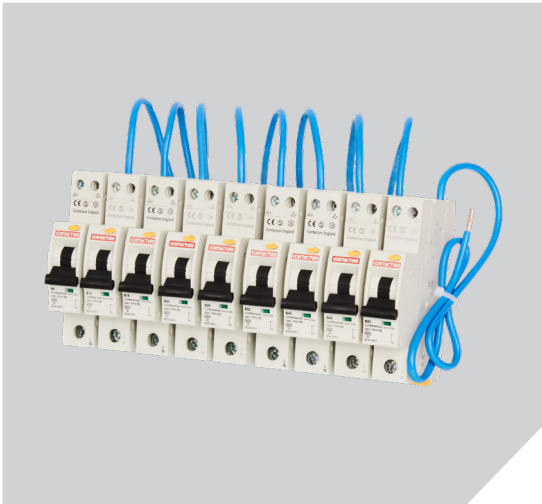
## MCB 1P 6kA & 10kA B and C Curve



CPB- -03-	3A SP MCB
CPB- -06-	6A SP MCB
CPB- -10-	10A SP MCB
CPB- -16-	16A SP MCB
CPB- -20-	20A SP MCB
CPB- -25-	25A SP MCB
CPB- -32-	32A SP MCB
CPB- -40-	40A SP MCB
CPB- -50-	50A SP MCB
CPB- -63-	63A SP MCB

--Specify 06 for 6kA and 10 for 10kA. --Specify B or C for curve type. eg: CPB0603B

## eRCBO 1P 6KA & 10KA Compact B and C Curve



CCPBR- -06A-	6A Class A SP RCBO
CCPBR- -10A-	10A Class A SP RCBO
CCPBR- -16A-	16A Class A SP RCBO
CCPBR- -20A-	20A Class A SP RCBO
CCPBR- -25A-	25A Class A SP RCBO
CCPBR- -32A-	32A Class A SP RCBO
CCPBR- -40A-	40A Class A SP RCBO
CCPBR- -45A-	45A Class A SP RCBO
CCPBR- -50A-	50A Class A SP RCBO

--Specify 06 for 6kA and 10 for 10kA. --Specify B or C for curve type. eg: CCPBR0606AB

### Technical Data for MCB

Standard	Confirming to BS EN / IEC60898-1
Breaking capacity	6kA, 10kA
Protection	Against overload and short circuit
Rated current In	6,10,16,20,25,32,40,50,63A
Rated voltage	1pole 230 AC 50/60Hz Rated insulation voltage Ui: 500V Rated impulse withstand voltage Uimp: 6000V Energy limiting class: 3
Ambient temperature	-5oC to : 40oC pursuant to BS EN / IEC60898
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
Number of poles	1P
Type of trip	Thermal / magnetic release
Type of terminal	Lug type and Pin type
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
Protection degree	IP20
Installation	Mounting on 35mm DIN rail
Torque (N.m)	2
Width	17.5mm per pole

### Technical Data for eRCBO

Standard	BS EN / IEC 61009
Breaking Capacity	6KA,10KA
Number of poles	1P+N(1 module)
Rated currents	6,10,16, 20, 25, 32, 40, 50A
Rated voltage	230VAC
Rated Tripping Current	30mA
Residual Operating Characteristics	A
Residual Current Disconnection Time	≤0.1s
Characteristic	B.C
Electrical endurance	10000
Mechanical endurance	20000
Ambient temperature	-25oC~+45oC,Max. 95%humidity
Connection terminal	Flexible 16mm <sup>2</sup> , Rigid 25mm <sup>2</sup>
Type of terminal	Lug type and Pin type
Module Width	17.8mm /module
Torque N.m	2

## Defender 2.0 Consumer Units

### eRCBO DP B Curve

CCPBR06062AB	06A 6kA Type A B Curve DP 2 MOD RCBO
CCPBR06102AB	10A 6kA Type A B Curve DP 2 MOD RCBO
CCPBR06162AB	16A 6kA Type A B Curve DP 2 MOD RCBO
CCPBR06202AB	20A 6kA Type A B Curve DP 2 MOD RCBO
CCPBR06322AB	32A 6kA Type A B Curve DP 2 MOD RCBO
CCPBR06402AB	40A 6kA Type A B Curve DP 2 MOD RCBO

### AFDD B and C Curve

ACPBR0606A-	6A 6KA Type A B Curve 1Mod AFDD/RCBO
ACPBR0610A-	10A 6KA Type A B Curve 1Mod AFDD/RCBO
ACPBR0616A-	16A 6KA Type A B Curve 1Mod AFDD/RCBO
ACPBR0620A-	20A 6KA Type A B Curve 1Mod AFDD/RCBO
ACPBR0625A-	25A 6KA Type A B Curve 1Mod AFDD/RCBO
ACPBR0632A-	32A 6KA Type A B Curve 1Mod AFDD/RCBO

-Specify B or C for curve type.

### Surge Arrestor

T2C4011KIT	Surge 40KA 1+1 Protection Retro Fit Kit
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### Technical Data for AFDD

Standard	IEC/BS EN 62606, IEC/BS EN 61009-1
Breaking Capacity	6KA
Number of poles	1P+N(1 module)
Rated currents	6,10,16, 20, 25, 32, 40A
Rated voltage	230VAC
Rated Tripping Current	30mA
Residual Operating Characteristics	A
Residual Current Disconnection Time	≤0.1s
Characteristic	B,C
Electrical endurance	4000
Mechanical endurance	20000
Ambient temperature	-25oC~+45oC,Max. 95%humidity
Connection terminal	Flexible 16mm <sup>2</sup> , Rigid 25mm <sup>2</sup>
Type of terminal	Lug type and Pin type
Module Width	17.8mm /module
Torque N.m	2





## Isolators & RCD

CPD63	63A Double Pole Isolator
CPD100	100A Double Pole Isolator
CPR63A	63A 30mA Class A 2 Pole RCD
CPR100A	100A 30mA Class A 2 Pole RCD
CPR1010A	100A 100mA Class A 2 Pole RCD
CPR1010AT	100A 100mA Class A 2 Pole RCD Time Delay

## Timers & Bell Transformers

TSAQ1	24Hr Analogue Timer 2 Ch 3 Mod
TSD1T	7Day/24Hr Digital Timer 1 Ch 2 Mod
TSDAS1	24HR Analogue Timer 1 Ch 16A Resist
TSBT2	Bell Transformer 1A 8VA Output

## Contactors

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

## Accessories

CPBBL	MCB Blank
DCA10	Pack of 10 MCB/RCBO Toggle Locking Device (New Design)
DCA20	AMD3 Membrane Grommet Kit
DCA21	40/32mm Tails Red Kit Metal
DCA22	40/32mm Tails Red Kit Plastic
DCA26	2.5-50mm <sup>2</sup> Earth Cable Connector

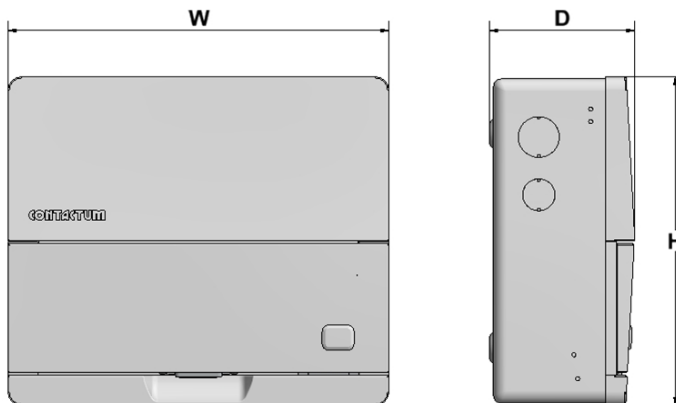
### Technical Data for RCD

Standard	Confirming to EN / IEC61008-1
Rated conditional short-circuit current, I <sub>nc</sub>	6kA
Protection	Ground fault
Type	AC, A
Rated current, I <sub>n</sub>	25,40,63,80,100
Number of poles	2(1+N)
Rated sensitivity currents, I <sub>Δn</sub>	30,100mA
Rated residual non-operating current	0.5 X I <sub>Δn</sub>
Rated impulse withstand voltage U <sub>imp</sub>	6000V
Rated voltages 2pole	230VAC
Ambient temperature	-25oC~+45oC,Max. 95%humidity
Residual current off-time at I <sub>Δn</sub>	≤0.1s
Rated residual current making & breaking	500A for I <sub>n</sub> =25,40A
Capacity, I <sub>Δm</sub>	630A for I <sub>n</sub> =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

### Technical Data for Isolator

Standard	EN / IEC60947-3
Rated currents	63, 100
Rated voltage	2 pole 230 AC 50/60Hz
Utilization category	AC-22A
I <sub>cw</sub>	12I <sub>e</sub> , t=0.1s
Rated short-circuit making capacity I <sub>cn</sub>	20I <sub>e</sub> , t=0.1s
Rated making & breaking capacity	3I <sub>e</sub> , 1.05U <sub>e</sub> , COS =0.65
Rated insulation voltage U <sub>i</sub>	690V
Rated impulse withstand voltage U <sub>imp</sub>	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)	-25~+45, 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

## SURFACE Consumer Units Technical Data



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

## Surface Mounted Defender 2.0 Dimensions

Dimensions	Allow 2 modular ways for each Switch Disconnecter or RCD and allow 1 modular way for each MCB, RCBO or AFDD								
	4 Mod	8 Mod	12 Mod	16 Mod	18 Mod	20 Mod	22 Mod	24 Mod	44 Mod
Width (W) mm	155	227	299	371	407	443	479	515	479
Height (H) mm	262	262	262	262	262	262	262	262	524
Depth (D) mm	114	114	114	114	114	114	114	114	114

### TYPE TEST CERTIFICATE

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

Applicant: **Contactum Ltd**  
2 Blackmoor Lane, Croyley Green Business Park, Watford  
London WD18 8GA, United Kingdom

Manufacturer: **Alfanar Electrical Systems**  
Madinet alfanar, 3<sup>rd</sup> Industrial City  
P.O. Box 564, Riyadh 11383, Saudi Arabia

Product: **Consumer Units SDDS Defender 2.0**  
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: **BS EN 61439-3:2012 Edition 1.0**  
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

Fulfills the type-test requirements of:  
**BS EN 61439-3:2012 Edition 1.0**  
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: **B25-21-AV-01E\_SDDsv1**

Certificate issued on: **6<sup>th</sup> September 2021**

Electronic signature

Luis Martínez Cencela  
Head of Electrical Equipment Laboratory

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### TYPE TEST CERTIFICATE

**COMPLETE TYPE TESTS**  
No B25-21-AV-01E\_SDDv1-CERT

Applicant: **Contactum Ltd**  
2 Blackmoor Lane, Croyley Green Business Park, Watford  
London WD18 8GA, United Kingdom

Manufacturer: **Alfanar Electrical Systems**  
Madinet alfanar, 3<sup>rd</sup> Industrial City  
P.O. Box 564, Riyadh 11383, Saudi Arabia

Product: **Consumer Units SDD Defender 2.0**  
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: **BS EN 61439-3:2012 Edition 1.0**  
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

Fulfills the type-test requirements of:  
**BS EN 61439-3:2012 Edition 1.0**  
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

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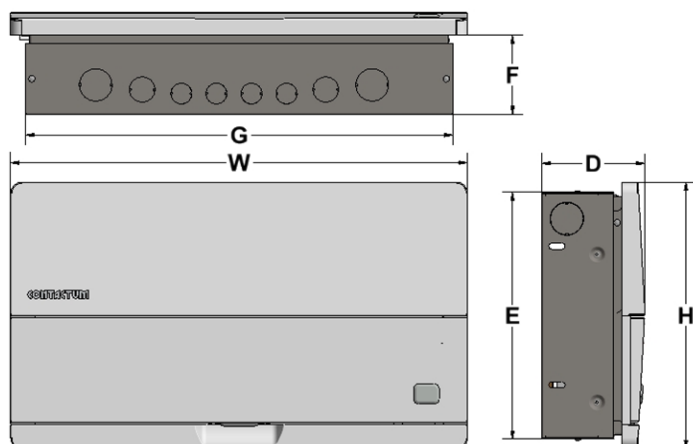
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## FLUSH Consumer Units Technical Data



Technical Data	
Standard	BS EN 61439-3:2012
Max Current Rating (InA)	*80A
Rated Operating Voltage (Ue)	230V AC 50Hz
Short Circuit Withstand (Icw)	10kA 0.1sec
Poles	1
Cable Entry/Exit (KO's)	20, 25 & 32mm
Material	1.2mm Sheet Steel
IP Protection Rating	IP2XC/IP4X (top surface)
Impact Rating	IK05
RAL Colour	9016
Fixing	Flush
Terminal Torque (N.m)	1.5
Module Width	17.8mm

### Flush Mounted Defender 2.0 Dimensions

Dimensions (mm)	Allow 2 modular ways for each Switch Disconnector or RCD and allow 1 modular way for each MCB, RCBO or AFDD			
	12 Mod	16 Mod	18 Mod	20 Mod
Width (W)	371	443	479	515
Height (H)	262	262	262	262
Depth (D)	100	100	100	100
G	336	408	444	480
E	242	242	242	242
F	77	77	77	77

### TYPE TEST CERTIFICATE

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

Applicant: **Contactum Ltd**  
2 Blackmoor Lane, Croxley Green Business Park, Watford  
London WD18 8GA, United Kingdom

Manufacturer: **Alfanar Electrical Systems**  
Madinet alfanar, 3<sup>rd</sup> Industrial City  
P.O. Box 564, Riyadh 11383, Saudi Arabia

Product: **Consumer Units FDDS Defender 2.0**  
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: **BS EN 61439-3:2012 Edition 1.0**  
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

Fulfills the type-test requirements of:  
**BS EN 61439-3:2012 Edition 1.0**  
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: **B25-21-AV-01E\_FDDsv1**

Certificate issued on: **6<sup>th</sup> September 2021**

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Designation: Contactum Defender 2.0  
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Rated Insulation Voltage: 400 V  
Rated Operation Voltage: 230 V  
Rated Frequency: 50 Hz  
Rated Impulse Voltage: 4 kV

Standard: **BS EN 61439-3:2012 Edition 1.0**  
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

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# CONTACTUM



## DEFENDER 2.0



DEF2B 09/21



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*Design is Everything...*

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