



**Now included**

- Round knockout Consumer Units
- Rear Grommets
- Compact RCBOs
- Electricity Isolators
- AFDDs

# PRO CONSUMER UNITS & CIRCUIT PROTECTION

A comprehensive Consumer Unit & Circuit Protection range for residential installations

# PRO

## AN ATTRACTIVE RANGE OF EASY-TO-INSTALL CONSUMER UNITS

The latest enhancement to the Lewden range. PRO offers a stylish, ergonomic, and non-obtrusive consumer unit design, paired with a comprehensive range of circuit protection devices and accessories to meet the needs of every installation.



Front cover  
earth bond

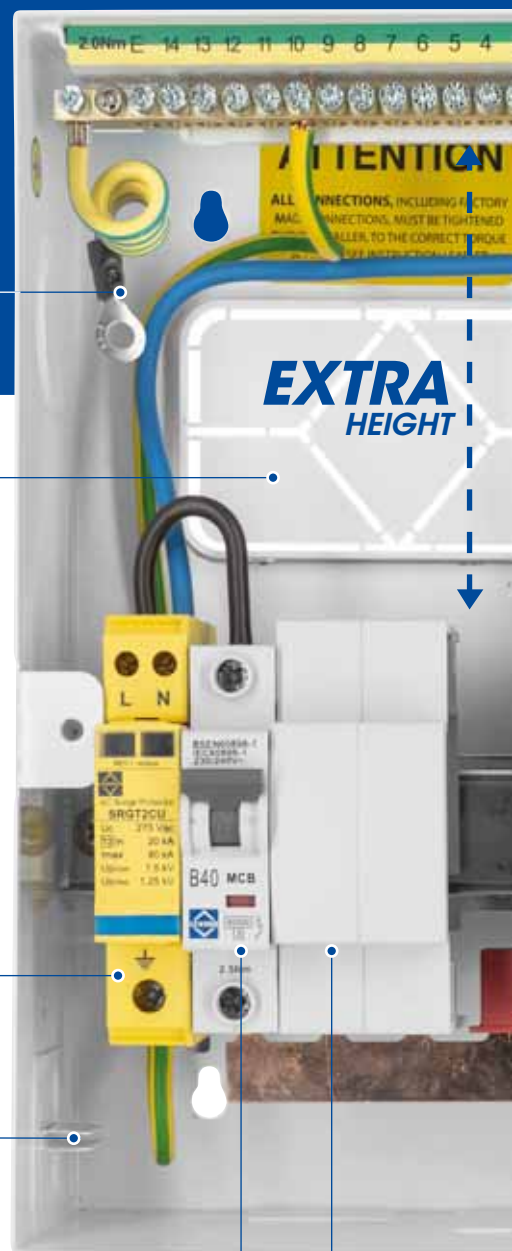
Segmented  
rear cable  
grommets

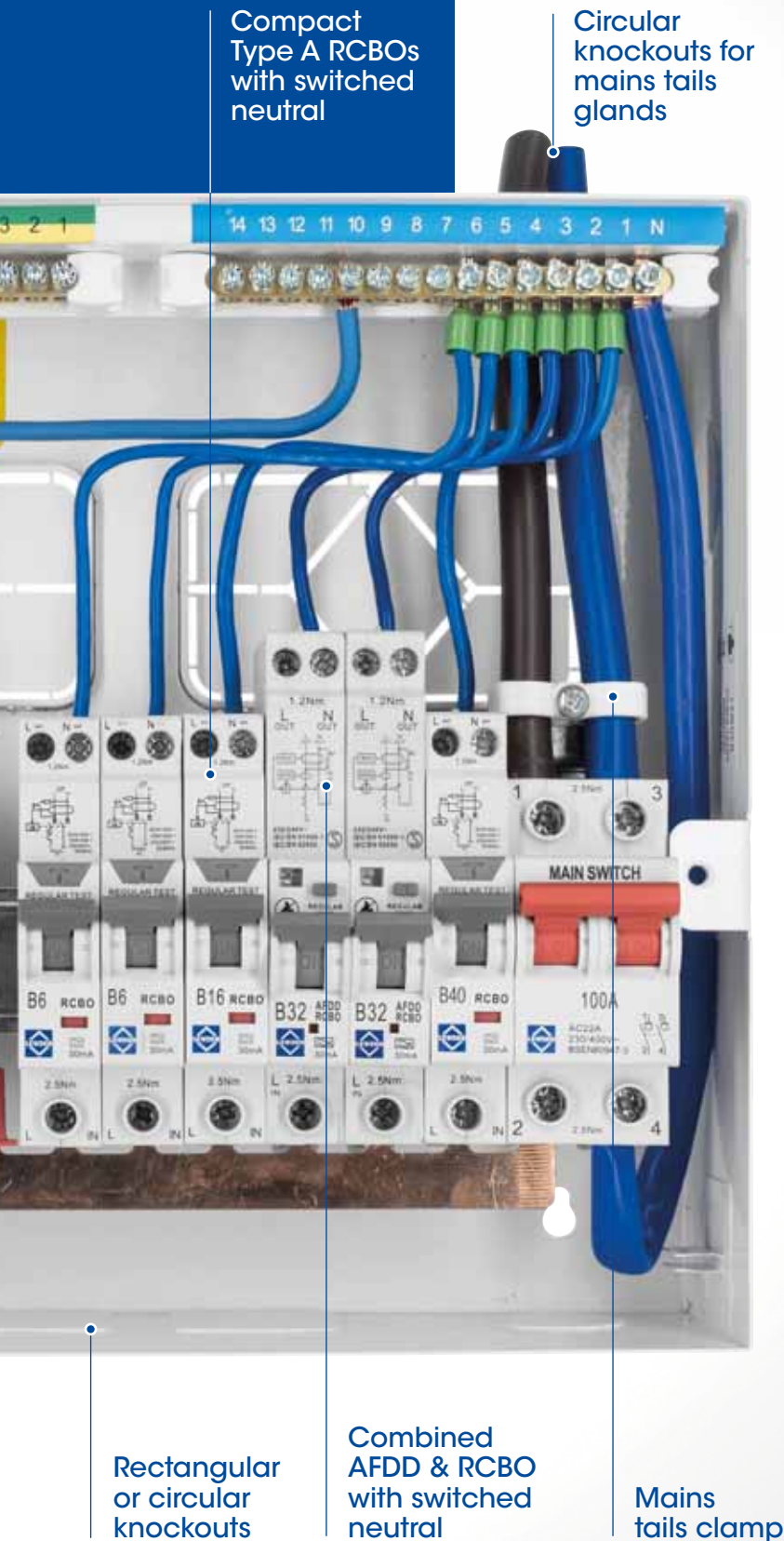
Surge  
Protection  
Device

Busbar cover  
removed for  
illustration  
purposes

40A MCB for  
Surge Protection Device

Multi-Function DIN Rail Blank





Compact  
Type A RCBOs  
with switched  
neutral

Circular  
knockouts for  
mains tails  
glands

Rectangular  
or circular  
knockouts

Combined  
AFDD & RCBO  
with switched  
neutral

Mains  
tails clamp

## Stylish design

- The wrap around front cover provides a clean and un-obtrusive finish.
- With extra wide 180° opening, it offers superior visibility of circuit protection devices, even when the consumer unit is mounted low down, and provides the perfect position to affix installation labelling.

## Solid Construction

- Non-combustible steel enclosure finished in RAL9003 Signal white semi-gloss.
- Retained cover screws to prevent loss.
- Available with rectangular or circular knockouts for outgoing circuits on top and bottom faces.
- Rectangular knockouts on top and bottom faces to match popular mini trunking sizes.
- Circular knockouts on four sides provide flexibility for meter tails entry position.

## Enclosure height

- Extra enclosure height provides generous wiring space for outgoing cabling during installation, as well as for future additions.

## Devices

- A full and complete range of circuit protection devices including compact RCBOs with switched neutral, cater for all design arrangements.
- Type 2 surge protection can also easily be incorporated in any installation.
- Combined AFDD RCBO with switched neutral provides additional protection in a space saving single module.

## Accessories

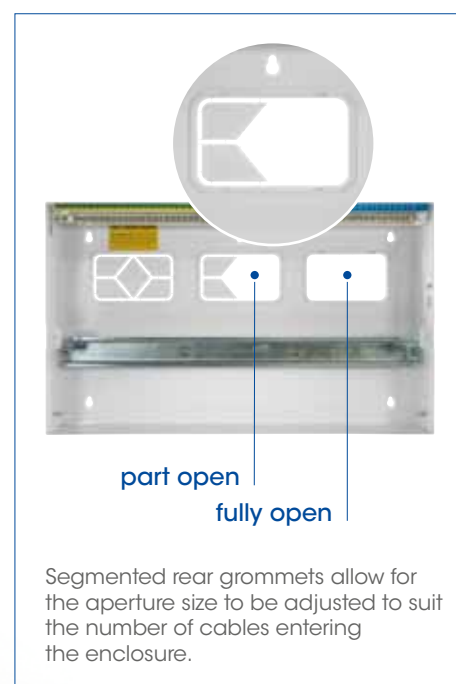
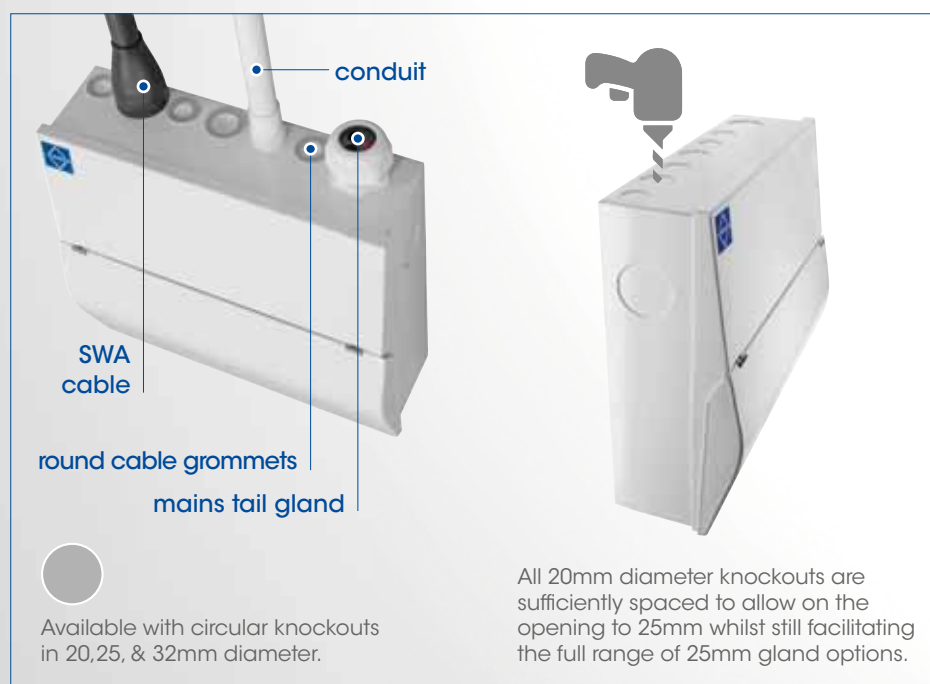
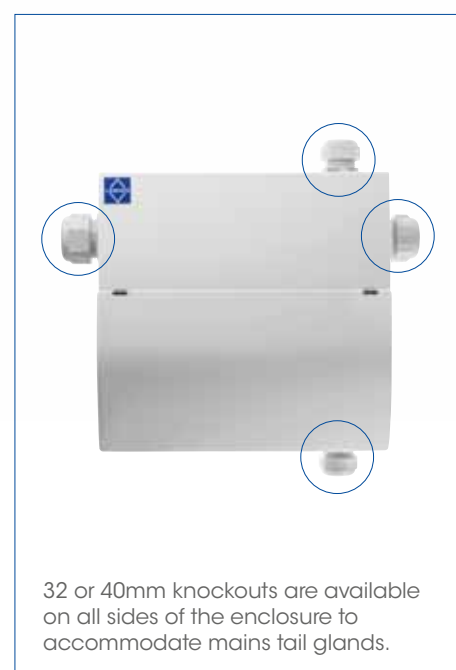
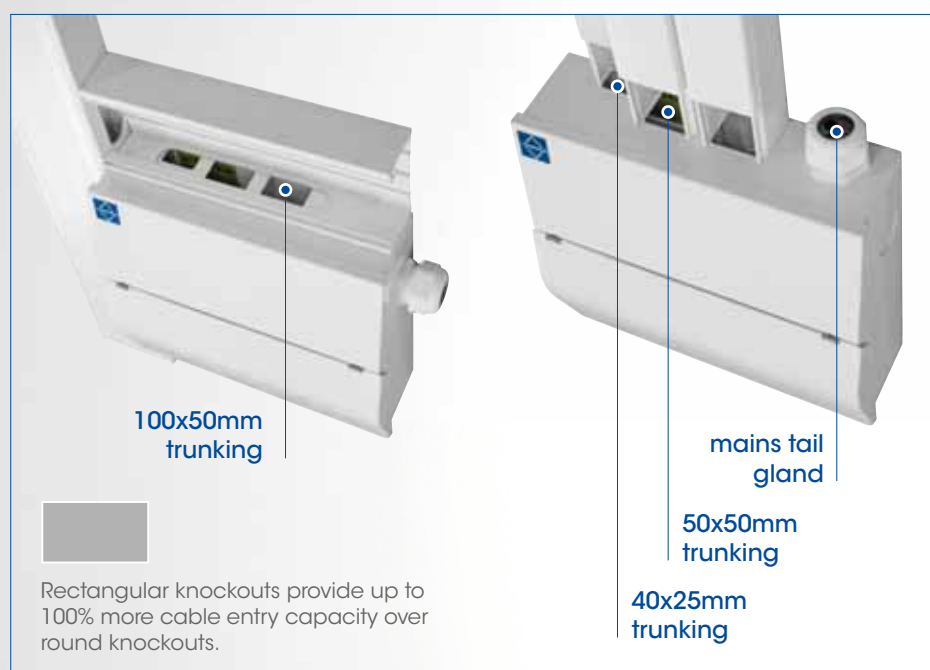
- Blind cable grommets for use in rectangular knockouts prevent cable chaffing and maintain IP4X ingress protection.
- An optional meter tails clamp provides additional strain relief to meter tails.
- A cover key lock option is also available on request, for installations requiring restricted access to the operation of devices in service.
- Full din rail mounting blanks offer a high level of protection against access to live parts, and cannot be removed whilst the front cover is fitted.
- Segmented rear grommets available in two knockout sizes to protect cables and limit the opening size to suit the number of cables.

# The PRO Consumer units range is now available with the option of rectangular or circular knockouts across all enclosure sizes.

Rectangular knockouts are ideal for use with standard mini and maxi trunking sizes and provide maximum cable entry capacity. The rectangular knockout design with its unique pierceable cable grommet accessory provides the optimum solution for maintaining the IP rating for final circuit cable entering the enclosure. The new circular knockouts range provides complete flexibility for installing round cable glands, conduits, cable grommets and for terminating SWA final circuit cables.



Scan to view the PRO Enclosure Technical Knockouts Guide





# IET Wiring Regulations BS7671

## Amendment 2: 2022

Amendment 2 of BS7671 has introduced some fundamental changes which impact on the design and installation of a residential consumer unit. A summary of these changes is detailed below.

### Arc Fault detection devices (AFDD) Regulation 421.1.7

Within certain types of premises, protection against arcing faults is now a mandatory requirement for final circuits rated up to 32A supplying socket outlets. For all other premises, the use of AFDDs on final circuits rated up to 32A supplying socket outlets is recommended.

### Surge Protection Devices (SPD): Section 443

Significant changes to 443.5 have resulted in the calculated risk assessment method for determining the requirement for SPD protection being deleted. Surge protection against indirect lightning strokes is now mandatory where consequences could result in injury or loss of life, loss of safety services, or financial or data loss. In all other cases, protection against indirect lightning strokes shall always be provided, unless the owner of the installation declares that it is not required due to any loss being accepted and tolerable.

### Residual Current Devices (RCDs): Section 531.3.2

A new clause 531.3.2 (ii) reinforces the use of RCBOs in residential premises as a specific consideration for limiting the risk of unwanted tripping in final circuits.

### Types of RCD: Regulation 531.3.3

Type AC RCDs are now only permitted for use on circuits serving fixed equipment where it is known that the load current cannot generate any dc component, for example electric heating appliances or simple filament lighting.

### RCD testing: Section 643

Amendments to clauses 643.7 & 643.8 have simplified the requirements for testing RCDs within an installation irrespective (no capital I) of RCD type (excluding time delayed RCDs), testing is now only required to be conducted

using an alternating test current (AC) at rated residual operating current (1 IΔn).

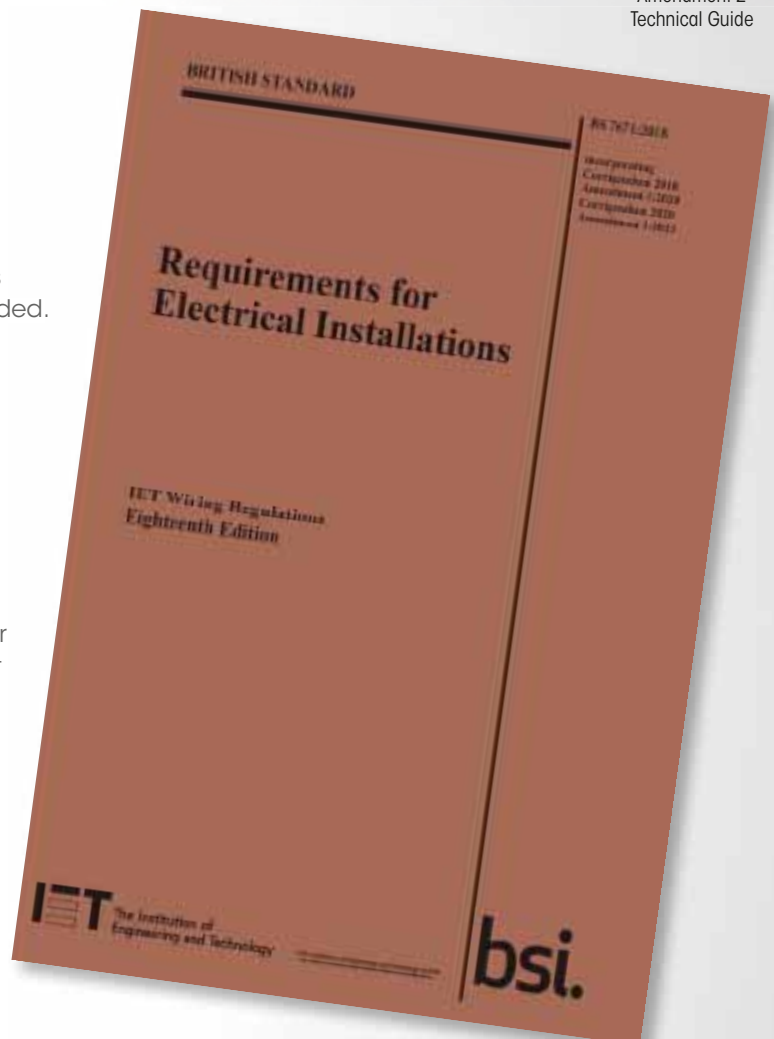
For a more in-depth review, see the Lewden guide to Amd 2 and its impact upon the design and installation of residential consumer units.

#### Disclaimer

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Scan to view the  
complete Lewden  
Amendment 2  
Technical Guide



# AFDD

## ■ How does the AFDD work?

The integral AFDD uses microprocessor-based technology to continuously monitor the electrical circuit, identifying unintentional arcs caused by broken or damaged cables or poor connections. AFDD's can differentiate between "dangerous arcing" and "normal arcing" caused by the normal operation of equipment such as vacuum cleaners drills and electrical appliances and will disconnect the supply when identifying arcing faults.



## ARC FAULT DETECTION DEVICES

Electrical fires continue to be a significant issue within UK Installations. The Department for Communities and Local Government; Fire statistics 2017/18, identifies over 17,000 domestic fires within the UK, with approximately 12% starting within the electrical distribution system and up to 23% caused by faulty appliances and leads.

Since the 1980s, the use of MCBs to provide overcurrent protection and RCDs to provide residual current protection have reduced the risk and consequences of these types of electrical fires. The introduction of Arc Fault Detection Devices (AFDDs) now offers an even more advanced level of protection in an installation, capable of identifying low level hazardous arcing faults that MCBs, RCDs and SPDs are not designed to detect or protect against.

AFDDs can also mitigate the risk fire caused by faults within the whole electrical Installation, both within the fixed wiring and the cabling of equipment connected to it.

The Lewden P4 series of combined AFDD & RCBO provides the highest degree of protection, safeguarding final circuits against the effects of:

- over current
- residual current
- arcing faults
- over voltage
- over voltage protection



# Arc Fault Detection Devices

## ■ Key Features

The P4 Combined AFDD RCBO is designed for integration within the Lewden range of distribution boards and is fully interchangeable with the Lewden range of 6kA single module MCBs and RCBOs.

- Available in current ratings of 6-40A, incorporated within a single module width.
- The device combines a microprocessor based AFDD with a 1P+ Switched Neutral RCBO.
- Incorporating a 30mA class A RCD and a 6kA MCB.
- Suitable for use on TN-S, TN-C-S & TT network systems.
- The switched Neutral pole makes the device suitable as a means of double pole isolation, and is particularly appropriate for installations with TT Earthing Systems where it is necessary to disconnect all live conductors to achieve safe isolation of individual circuits (BS7671:2018 Regulation 462).

## ■ Fault identification

Following an electrical fault in the load circuit the P4 device will trip. Upon re-closing, the LED will flash in sequence to signify the reason for the last break of circuit.

## ■ Quality approved

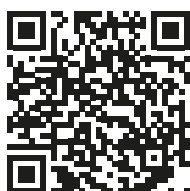
To ensure commitment to safety and quality, the Lewden P4 Series Combined AFDD & RCBO has been independently laboratory tested and certified by Intertek, and bears the European safety 'S Mark'.



The S mark is a voluntary certification scheme demonstrating that the product continually meets all relevant technical safety requirements, verified by regular inspections of the manufacturing facility by Intertek.

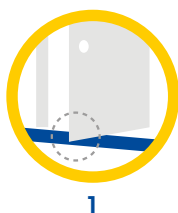


Scan to view the  
P4 Combined  
AFDD RCBO  
Technical Guide



## ■ What causes Arc Faults?

Unintentional arcing faults can occur due to several reasons, ranging from poor installation or accidental damage to cabling and equipment, to deterioration of the cable over time due to external factors. These faults can occur within the fixed cabling installation, or on portable equipment connected to the fixed wiring installation. Electrical arcing faults may be caused by (but not limited to):



1



2



3



4



5

1. Trapped damaged or crushed cables
2. Cable damage during installation or ongoing usage
3. Damage to wire insulation
4. Rodent damage
5. Loose connections

# PRO RCBO Based Solution

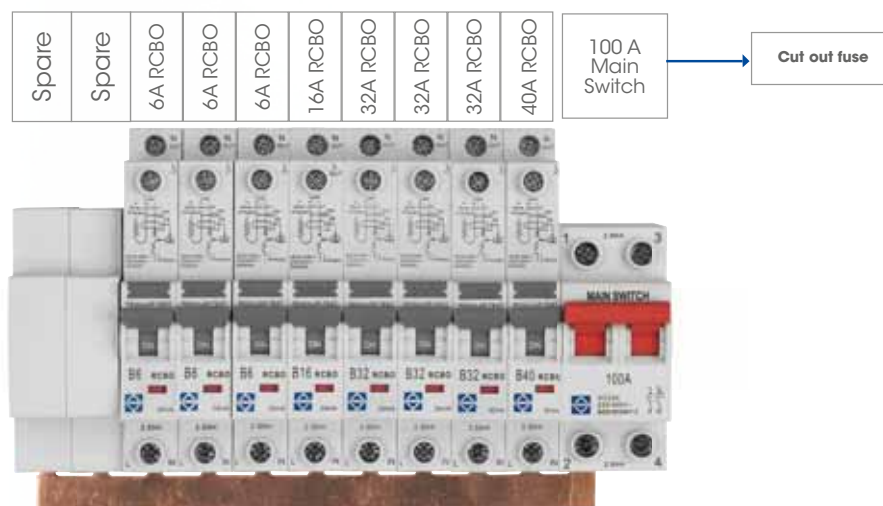
RCBO based solutions represent the best approach in providing maximum flexibility, division and control over final circuits, totally fulfilling the requirements of the wiring regulations in terms of providing ongoing diversity, upstream overload protection, and limiting the risk of nuisance tripping.

Our range of RCBO devices are available in various formats incorporating switched or unswitched neutral, compact height and combined AFDD.

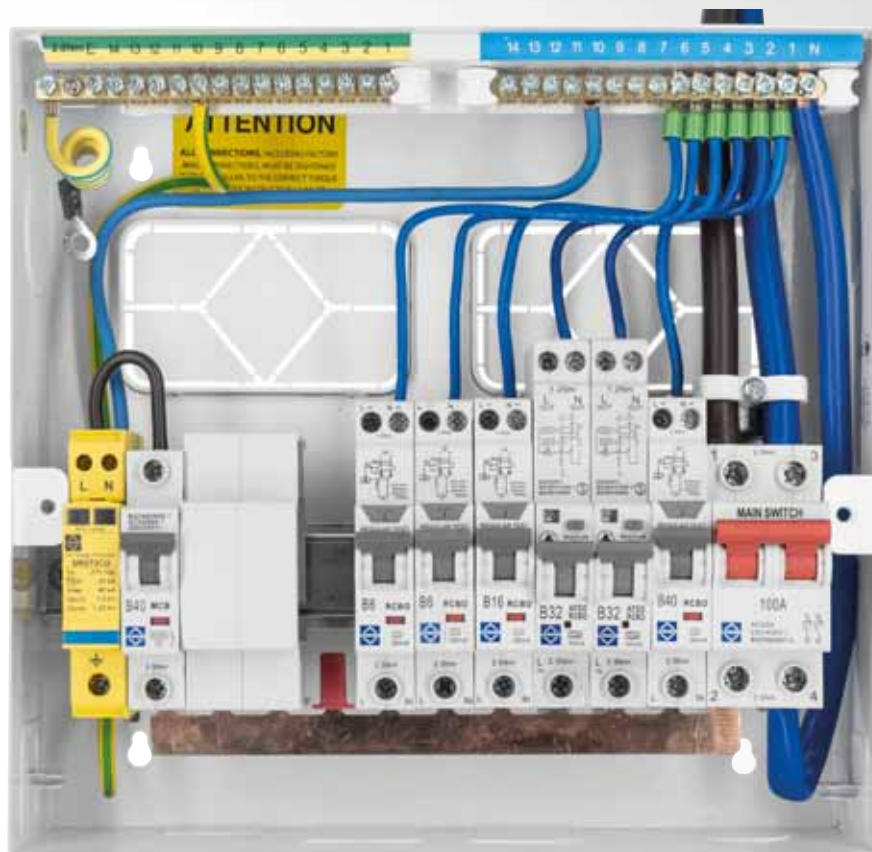
Consumer Unit Type	Minimized inconvenience	Diversity Factor Free	Upstream Cut Out Fuse Compatibility		
			63A	80A	100A
RCBO Board	✓	✓	✓	✓	✓
63A Incomer RCCB Board	✗	✗	✓	✗	✗
80A Incomer RCCB Board	✗	✗	✓	✓	✗
100A Incomer RCCB Board	✗	✗	✓	✓	✓

**BEST**  
APPROACH

Utilising a consumer unit comprising a 100A rated main switch, and individual RCBOs on the outgoing circuits is considered the best approach to provide residual current and overload fault protection to each outgoing circuit as required by BS7671. Consideration to spare ways and future additions are automatically compensated for. Furthermore, by distributing load equipment across a greater number of individual RCBO circuits, this greatly assists in reducing the possibility of nuisance tripping, eliminating inconvenience caused by loss of supply to multiple circuits in the event of a residual current fault. With this method, the main switch and distribution bus bar are each rated to 100A, this being the maximum permissible cut out fuse rating installed by the supply authority to domestic properties.







### RCBO Based Solution Incorporating Compact RCBOs/AFDD RCBOs and Surge Protection

#### 1 RCBO Consumer Units

Incorporating a 100A DP Main Switch and busbar system ensures compatibility with DNO fuse ratings up to 100A. (BS7671 536.4 Overcurrent protection of RCCBs / AFDD RCBOs and Main Switches by upstream OCPD's).

#### 2 Type A RCBOs as standard

Designed for use with load equipment that features electronic components (BS7671 531.3.3 Types of RCD).

#### 3 Sub-division of circuits

RCBOs / AFDD RCBOs minimize the inconvenience in the event of a fault and limit the risk of unwanted tripping by separating final circuits (BS7671 531.3.2 Unwanted tripping).

#### 4 Using Individual RCBOs and AFDD RCBOs

Provides for optimum division of final circuits and minimizes inconvenience in the event of a fault (BS7671 314.1 (i) & (ii) Division of Installation).

#### 5 Increased wiring space

Compact RCBOs maximise wiring room, making the installation quicker and neater, providing for a safer installation. (BS7671 132.12 Accessibility of electrical equipment).

#### 6 Ease of testing

Compact RCBOs with double pole switching incorporate side by side output terminals for ease of testing and periodic inspection.

#### 7 Faster to commission

Neutral pole switched RCBOs negate the need to disconnect the neutral lead during insulation resistance testing, speeding up the commissioning process.

#### Double pole isolation

Compact RCBOs and AFDD RCBOs incorporate a switched neutral which provides for safe isolation of individual circuits, and double pole isolation as required in TT systems and EV charging circuits. (BS7671 537 - Isolation and Switching)

# PRO RCBO Based Solution

**BEST  
APPROACH**

A comprehensive consumer unit range comprising a 100A DP main switch with overload and residual current protection provided on each individual final circuit by RCBOs. Distributing final circuits across individual RCBOs provides the best approach to fully meeting the requirements of BS7671.

- Supplied with 100A rated Mains Switch and distribution bus bar.
- Overcurrent and 30mA earth leakage fault protection combined in one device.
- Class A residual current protection as standard.
- 6kA Short circuit breaking capacity. Energy limiting class 3.
- B or C curve overcurrent trip options.
- Fully interchangeable switched and un-switched neutral pole RCBO options.
- Ratings from 6A to 50A.



## RCBO Consumer units

- Configured with 100A DP Main Switch
- +1 Extra module included for the installation of a surge protection device\*
- Arranged with 1 x Neutral & 1 x Earth bar

Knockout Arrangement	Part Number	Useable Ways	Enclosure Size (Modules)	Dimensional Drawings
	PRO-MX04M	2 Ways +1 *	5	PRO1
	PRO-MX08M	6 Ways +1 *	9	PRO2
	PRO-MX10M	8 Ways +1 *	11	PRO3
	PRO-MX12M	10 Ways +1 *	13	PRO4
	PRO-MX16M	14 Ways +1 *	17	PRO5
	PRO-MX21M	19 Ways +1 *	22	PRO6
	PRO-R04M	2 Ways + 1 *	5	PRO1
	PRO-R08M	6 Ways + 1 *	9	PRO2
	PRO-R10M	8 Ways + 1 *	11	PRO3
	PRO-R12M	10 Ways + 1 *	13	PRO4
	PRO-R16M	14 Ways + 1 *	17	PRO5
	PRO-R21M	19 Ways + 1 *	22	PRO6

**BUNDLE OFFER** Add suffix S to the part number for consumer unit supplied complete with Type 2 surge protection kit e.g. PRO-R12MS



## AFDD RCBOs

- Combined AFDD & RCBO providing arc fault protection alongside over-current, residual current and over voltage protection.
- Class A 30mA RCD
- B Trip Curve, 6kA short circuit capacity
- Suitable for TN and TT Earthing systems
- Single module 18mm width, fully interchangeable with switched and unswitched neutral RCBOs and single pole MCBs.
- Double pole switching for complete isolation in the event of a fault.

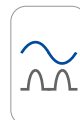


Part Number	Rated Current
P04-B06/30/1PNA	6A
P04-B10/30/1PNA	10A
P04-B16/30/1PNA	16A
P04-B20/30/1PNA	20A
P04-B32/30/1PNA	32A
P04-B40/30/1PNA	40A

- \*+1 module dedicated to SPD and is not a useable way
- For accessory items please refer to page 19
- For dimensional drawings please refer to page 24 & 25



## Compact RCBOs 30mA Switched Neutral

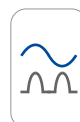


- Double pole switching for complete isolation in the event of a fault
- A switched neutral pole significantly reduces the installation and commissioning test time
- Compact 96mm height increases the available wiring space within the consumer unit
- Suitable for TN & TT earthing systems
- Particularly suited to installations where double pole isolation of individual circuits may be required; e.g. Distribution circuits on TT earthing systems, Electric vehicle charging circuits etc.
- 6kA short circuit capacity

Rated Current	Class A	
	B Trip Curve	C Trip Curve
6	RCBO-B06/30/1PNA	RCBO-C06/30/1PNA
10	RCBO-B10/30/1PNA	RCBO-C10/30/1PNA
16	RCBO-B16/30/1PNA	RCBO-C16/30/1PNA
20	RCBO-B20/30/1PNA	RCBO-C20/30/1PNA
32	RCBO-B32/30/1PNA	RCBO-C32/30/1PNA
40	RCBO-B40/30/1PNA	RCBO-C40/30/1PNA



## RCBOs 30mA Un-Switched Neutral



- Single Pole switching
- Device height 113mm
- Suitable for TN Earthing systems
- Single pole RCBOs are suitable for use in TT network systems when used in conjunction with a DP main switch as the point of safe isolation
- 6kA short circuit capacity

Rated Current	Class A	
	B Trip Curve	C Trip Curve
6	RCBO-06/30/SPA	RCBO-06/30/1M/CA
10	RCBO-10/30/SPA	RCBO-10/30/1M/CA
16	RCBO-16/30/SPA	RCBO-16/30/1M/CA
20	RCBO-20/30/SPA	RCBO-20/30/1M/CA
32	RCBO-32/30/SPA	RCBO-32/30/1M/CA
40	RCBO-40/30/SPA	RCBO-40/30/1M/CA
50	RCBO-50/30/SPA	RCBO-50/30/1M/CA



## Surge Protection Kit

- Kit comprises Type 2 SPD, 40A B curve MCB & 6mm<sup>2</sup> connection cables
- Suitable for use in TN-C-S (PME) / TN-S / and TT networks
- Note: The MCB occupies one of the Consumer Units useable ways and the SPD occupies the +1 way



Scan to access the CPD course on SPDs from our Lewden Academy

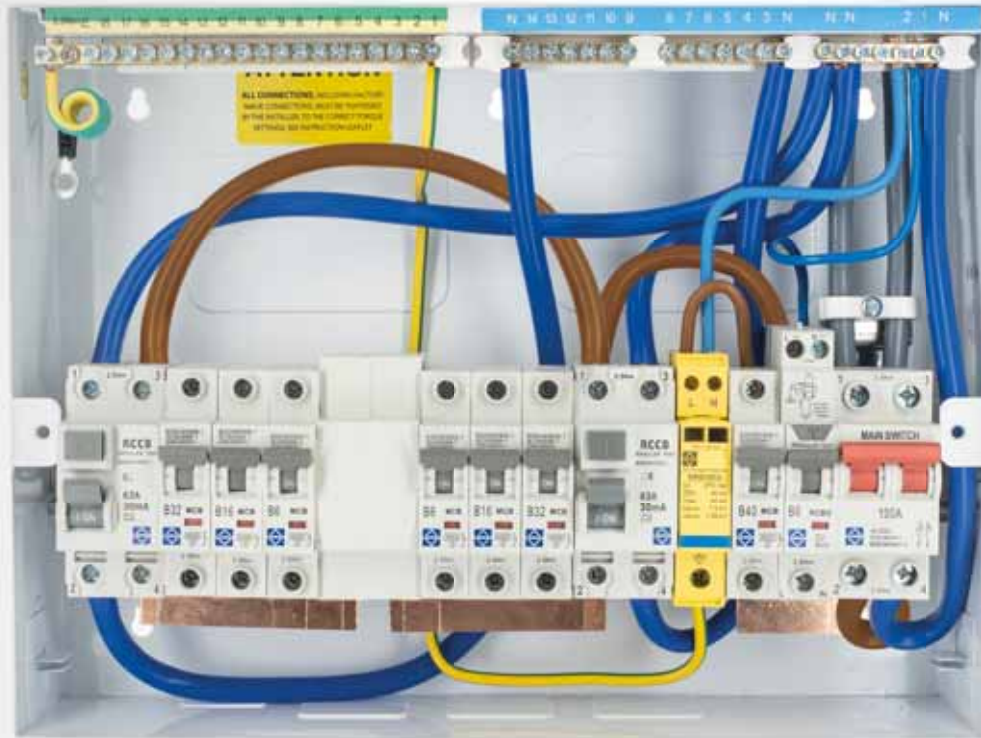
Part Number	Description
SRG1VCU-KIT	SRGT2CU + 40A MCB + Cable set for Lewden Consumer Units

• For Single Pole MCBs see page 18

# PRO Dual RCCB Based Solution

A comprehensive consumer unit range comprising a 100A DP main switch and MCBs arranged in two groups, with each group protected by a dedicated RCCB.

- Supplied with 'Flexi Cut' bus bar for easy management of outgoing MCBs assigned to each RCCB group.
- A high integrity bus bar allows for two additional outgoing MCB / RCBO circuits to be installed independently of the two RCCB protected groups.
- Arranged with 3 x Neutral & 1 x Earth bar.



## 1 Choice of RCCB ratings

Lewden offer a selection of RCCBs rated at 63A, 80A and 100A for coordination with the upstream OCPD (BS7671 536.4.3.2 / 536.4.5 / 536.4.202).

## 2 Type A RCCBs as standard

Designed for use with load equipment that features electronic components (BS7671 531.3.3 Types of RCD).

## 3 Division of final circuits

Multiple Neutral Busbars with ample number of terminations allow for maximum flexibility when dividing MCBs across the two RCCB protected groups, and when incorporating high integrity circuits.

## 4 Sub-division of circuits

The "Flexi -Cut" Bus bar provides total flexibility in division of distribution MCBs across the two RCCBs, and can be easily adjusted to meet any high integrity configuration. (BS7671 314.1 Division of installation).

## 5 High integrity option

The Dual RCCBs Consumer unit is designed to allocate up to two useable ways for the installation of MCBs, RCBOs, AFDD RCBOs, connected directly to the Main Switch via the busbar provided. This offers total separation from the circuits divided across the two RCCBs and is ideal for Security or Fire Alarm equipment, or the incorporation of type 2 surge protection. (BS7671 531.3.2 Unwanted tripping).

## 6 Ease of assembly

Highly flexible internal cabling allows for RCCBs to be positioned easily to cater for the inclusion of high integrity distribution circuits, including the installation of surge protection.





## Populated Dual RCCB

- Configured with 100A DP Main Switch, 2x 80A 30mA RCCBs, and 6x MCBs
- 1 Extra module included for the installation of surge protection\*
- 4 spare ways

Knockout Arrangement	Part Number	Useable Ways	Enclosure Total Modules	RCCB 80A 30mA Class A	MCBs B Trip Curve			Dimensional Drawings
					6A	16A	32A	
	PRO-PM10	10 Ways +1 *	17	2	2	1	3	PRO5
	PRO-RPM10	10Ways +1 *	17	2	2	1	3	PRO5



## Semi-Populated Dual RCCB

- Configured with 100A DP Main Switch, 2x 80A 30mA Class A RCCBs
- Includes interconnecting cables
- +1 Extra module included for the installation of surge protection\*

Knockout Arrangement	Part Number	Useable Ways	Enclosure Size (Modules)	RCCB 80A 30mA Class A	Dimensional Drawings
	PRO-MX12RRMFLEXIA	6 Ways +1 *	13	2	PRO4
	PRO-MX16RRMFLEXIA	10 Ways +1 *	17	2	PRO5
	PRO-MX21RRMFLEXIA	15 Ways +1 *	22	2	PRO6
	PRO-R12RRMFLEXIA	6Ways +1 *	13	2	PRO4
	PRO-R16RRMFLEXIA	10Ways +1 *	17	2	PRO5
	PRO-R21RRMFLEXIA	15Ways +1 *	22	2	PRO6



## Unpopulated Dual RCCB

- Configured with 100A DP Main Switch and interconnecting cables for 2 RCCBs. (RCCBs not included)
- Select appropriately rated RCCBs for the installation (63A, 80A, or 100A)
- +1 Extra module included for the installation of surge protection\*

Knockout Arrangement	Part Number	Useable Ways	Enclosure Size (Modules)	Main Switch	RCCB Positions	Dimensional Drawings
	PRO-MX12XXM	6 Ways +1 *	13	1	2	PRO4
	PRO-MX16XXM	10 Ways +1 *	17	1	2	PRO5
	PRO-MX21XXM	15 Ways +1 *	22	1	2	PRO6
	PRO-R12XXM	6Ways +1 *	13	1	2	PRO4
	PRO-R16XXM	10Ways +1 *	17	1	2	PRO5
	PRO-R21XXM	15Ways +1 *	22	1	2	PRO6

- \*+1 module dedicated to SPD and is not a useable way
- For circuit protection devices & accessory items see pages 17-19
- For dimensional drawings please refer to page 24 & 25

# PRO Dual Tariff

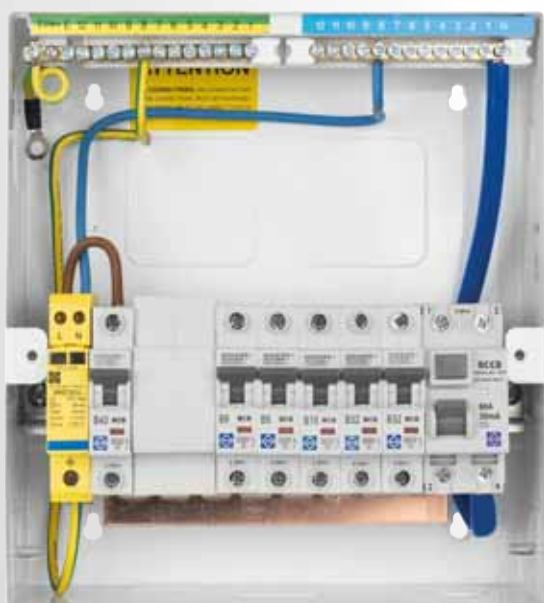


Dual Tariff solutions essentially combine two separate RCBO based consumer units within one space saving enclosure. Arranged with two 100A rated main switches, they are primarily designed for installations that utilise two independent sets of meter tails operating on different electricity tariffs. They are particularly suited to the application of storage heater systems.

- Designed for use with single module RCBOs/ AFDD RCBOs.
- For applications where two main switches are required to isolate meter tails operating on different electricity tariffs.
- Supplied complete with two distribution comb bus bars and two neutral bars that allow maximum flexibility in the number of circuits that can be assigned to each main switch.

# PRO RCCB Incomer & Garage Distribution

RCCB Incomer consumer units are Sub distribution boards, designed for applications such as workshops, garages, garden offices, and sheds where a small number of final distribution circuits are required.





## Dual Tariff

- Configured with 2x 100A Main Switches and 2 distribution bus bars
- 2x Neutral bars & 1 x Earth bar
- Compatible with 6kA single pole MCBs and Switched or un-switched neutral RCBOs and AFDD RCBOs

Knockout Arrangement	Part Number	Useable Ways	Enclosure Size (Modules)	Main Switch	Dimensional Drawings
	PRO-MX17DT	13 Ways	17	2	PRO5
	PRO-MX22DT	18 Ways	22	2	PRO6
	PRO-R17DT	13 Ways	17	2	PRO5
	PRO-R22DT	18 Ways	22	2	PRO6



## RCCB Incomer

- Configured with 30mA RCCB incomer
- 1 Extra module included for the installation of surge protection\*
- Arranged with 1 x Neutral & 1 x Earth bar

Knockout Arrangement	Part Number	Useable Ways	Enclosure Size (Modules)	RCCB 30mA Class A	Dimensional Drawings
	PRO-MX04R	2 Ways +1 *	5	63A	PRO1
	PRO-MX08R	6 Ways +1 *	9	63A	PRO2
	PRO-MX10R	8 Ways +1 *	11	80A	PRO3
	PRO-MX12R	10 Ways +1 *	13	80A	PRO4
	PRO-R04R	2 Ways +1 *	5	63A	PRO1
	PRO-R08R	6 Ways +1 *	9	63A	PRO2
	PRO-R10R	8 Ways +1 *	11	80A	PRO3
	PRO-R12R	10 Ways +1 *	13	80A	PRO4



## Garage Distribution

- Sub distribution consumer unit range comprising Main switch or RCCB incomer
- Complete with two MCBs

Knockout Arrangement	Part Number	Enclosure Size (Modules)	100A DP Main Switch	RCCB 63A 30mA Class A	MCBs B Trip Curve		Dimensional Drawings
					6A	16A	
	PRO-MCGARAGE-MS	5	1	-	1	1	PRO1
	PRO-MCGARAGE-63	5	-	1	1	1	PRO1
	PRO-RGARAGE-MS	5	1	-	1	1	PRO1
	PRO-RGARAGE-63	5	-	1	1	1	PRO1

- \*+1 module dedicated to SPD and is not a useable way
- For circuit protection devices & accessory items see pages 17-19
- For dimensional drawings please refer to page 24 & 25



## PRO Empty Modular Enclosures

- Supplied complete with single phase distribution busbar and neutral cable to allow for distribution set up via a DP main switch (GMS1002P main switch not included)
- 1 Neutral and 1 Earth bar

Knockout Arrangement	Part Number	Enclosure Size (Modules)	Dimensional Drawings
□	PRO-MC05ENC	5	PRO1
	PRO-MC09ENC	9	PRO2
	PRO-MC11ENC	11	PRO3
	PRO-MC13ENC	13	PRO4
	PRO-MC17ENC	17	PRO5
	PRO-MC22ENC	22	PRO6
○	PRO-R05ENC	5	PRO1
	PRO-R09ENC	9	PRO2
	PRO-R11ENC	11	PRO3
	PRO-R13ENC	13	PRO4
	PRO-R17ENC	17	PRO5
	PRO-R22ENC	22	PRO6



## Dual Row Modular Enclosure

- 2 rows of 16 modules (Neutral & earth bar above each row)
- Supplied with busbars and interconnecting cables to accommodate main switch & up to 30 RCBOs
- Detachable un-drilled gland plates top & bottom

Part Number	Enclosure Size (Modules)	Dimensional Drawings
QFS-MC32ENC	32	QFS 1



## Component Enclosure

- Ideal for housing singular devices such as main switches, SPD's and RCCB's
- The enclosures base features fully open sided access along with a centrally positioned DIN rail, providing optimum mounting space for up to 5 modules, with equal cabling distance both above and below the mounted device
- Particularly suited to applications where additional wiring room and installation access are advantageous
- A 3-way earth bar suitable for conductors up to 25 mm<sup>2</sup> is also provided

Part Number	Enclosure Size (Modules)	Dimensional Drawings
5MODMC	5	QFS 2

- \*+1 module dedicated to SPD and is not a useable way
- For circuit protection devices & accessory items see pages 17-19
- For dimensional drawings please refer to page 24-26



# Circuit Protection Devices



## Main Switch

- 100A DP 2 module width
- Terminal capacity 50mm<sup>2</sup>

Part Number	Rated Current	Rated Voltage	Switch Configuration	Utilisation Category
GMS1002P	100A	230/400VAC 50/60Hz	Double Pole	AC22A



## RCCB Class A

- Suitable for use on pure AC and where pulsating DC exists up to 6mA
- Type A devices are also suitable for AC applications
- 6kA Short circuit withstand



Part Number	Rated Current	Tripping Threshold	Total Modules
63/30/2A	63A	30mA	2
80/30/2A	80A	30mA	2
100/30/2A	100A	30mA	2
100/100/2SA*	100A Selective (S type)	100mA Time delayed	2

\*Where a metal consumer unit is installed in a TT system, the main switch can be replaced by a 100A 100mA - S type (time delayed) RCCB



## RCCB Class B

- 2 pole, 4 module for 230V applications
- 4 pole, 4 module for 400V applications
- Suitable for use on pure AC, pulsating DC, smooth DC & high frequency 10Hz<1kHz
- Type B devices are also suitable for type AC, A & F applications



Part Number	Rated Current	Number Of Poles	Tripping Threshold	Total Modules
63/30/2B	63A	2P	30mA	4
63/30/4B	63A	4P	30mA	4

\*Can be installed in 5MODMC enclosure



## Surge Protection Kit

- Kit comprises Type 2 SPD, 40A B curve MCB & 6mm<sup>2</sup> connection cables
- Suitable for use in TN-C-S (PME) / TN-S / and TT networks
- Note: The MCB occupies one of the Consumer Units useable ways and the SPD occupies the +1 way



Scan to access the CPD course on SPDs from our Lewden Academy

Part Number	Description
SRG1VCU-KIT	SRGT2CU + 40A MCB + Cable set for Lewden Consumer Units

# Circuit Protection Devices



## Miniature Circuit Breakers Single Pole

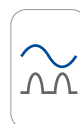
- 6kA Short circuit breaking capacity.
- B or C curve overcurrent trip options
- Ratings from 6A to 50A
- Fully interchangeable with switched and unswitched neutral RCBO options

Rated Current	B Trip Curve	C Trip Curve
6	G06-1B06	G06-1C06
10	G06-1B10	G06-1C10
16	G06-1B16	G06-1C16
20	G06-1B20	G06-1C20
32	G06-1B32	G06-1C32
40	G06-1B40	G06-1C40
50	G06-1B50	G06-1C50



## Single Module RCBOs

- 30mA Class A
- Switched or Un-Switched neutral pole options available (Fully interchangeable)
- Ratings from 6A to 50A
- 6kA short circuit capacity

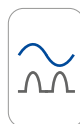


Rated Current	Compact Height		Standard Height	
	Compact With Switched Neutral		Single Pole With Un-switched Neutral	
	B Trip Curve	C Trip Curve	B Trip Curve	C Trip Curve
6	RCBO-B06/30/1PNA	RCBO-C06/30/1PNA	RCBO-06/30/SPA	RCBO-06/30/1M/CA
10	RCBO-B10/30/1PNA	RCBO-C10/30/1PNA	RCBO-10/30/SPA	RCBO-10/30/1M/CA
16	RCBO-B16/30/1PNA	RCBO-C16/30/1PNA	RCBO-16/30/SPA	RCBO-16/30/1M/CA
20	RCBO-B20/30/1PNA	RCBO-C20/30/1PNA	RCBO-20/30/SPA	RCBO-20/30/1M/CA
32	RCBO-B32/30/1PNA	RCBO-C32/30/1PNA	RCBO-32/30/SPA	RCBO-32/30/1M/CA
40	RCBO-B40/30/1PNA	RCBO-C40/30/1PNA	RCBO-40/30/SPA	RCBO-40/30/1M/CA
50	-	-	RCBO-50/30/SPA	RCBO-50/30/1M/CA



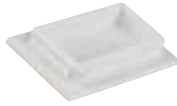
## AFDD RCBOs

- Combined AFDD & RCBO providing Arc Fault protection alongside over-current, residual current and over voltage protection
- Class A 30mA RCD
- B Trip Curve, 6kA short circuit capacity
- Suitable for TN and TT Earthing systems
- Single module 18mm width, fully interchangeable with switched and unswitched neutral RCBOs and single pole MCBs.
- Switched neutral pole



Part Number	Rated Current
P04-B06/30/1PNA	6A
P04-B10/30/1PNA	10A
P04-B16/30/1PNA	16A
P04-B20/30/1PNA	20A
P04-B32/30/1PNA	32A
P04-B40/30/1PNA	40A

# Consumer Units Accessories



## Pierceable cable grommets

### Small

CUGR-4025

40mm x 25mm (Pack of 10)

### Large

CUGR-5050

50mm x 50mm (Pack of 10)



## Mains Tail Clamp

MTC

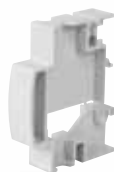
1 in each pack



## Padlock for MCBs, RCCBs and RCBOs

MCBLOCK

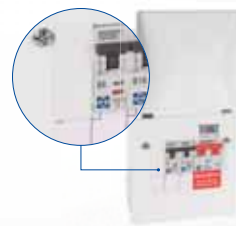
3 keys, Yellow Hazard Indicator



## Multi-Function DIN rail blank

MFDRB

1 in each pack



## Blanking strip

CU-BL

2 Blanking strips of 6 ways in each pack



## Cable grommets for rear knockouts - 100 x 60mm

CUGR-LR

Pack of 3



## Cable grommets for rear knockouts - 60 x 60mm

CUGR-SR

Pack of 4

- Small, large and rear cable grommets not applicable to 5MODMC and QFS-MC32ENC
- MTC not applicable to Component Enclosures

# Control Devices



Scan to download  
the technical  
datasheets for these  
products



## Bell Transformer

- To be used in conjunction with a 6A primary MCB
- User selectable secondary voltages of 4-8-12-16-24 VAC
- Rated output current 1A @ 8V

Part Number	Power Rating	Primary voltage	Secondary Voltage tapings	Insulation Class	Total Modules
BT	8VA	230VAC 50Hz	4-8-12-16-24 VAC	II	2

Note: Max output current will vary according to secondary tapping voltage selected.



## Contactors

- 230V AC DIN rail mounting Contactors suitable for residential applications
- 230 AC coil rating
- Normally Open poles ( closed on energisation)

Part Number	Rated Current	Poles	Module Number
IC20	20A	2	1
IC24/4	24A	4	2
IC40/2	40A	2	2
IC63/4	63A	4	3



## Time Switches

- 230V 50Hz DIN rail mounting time switches
- Voltage free output contact
- 16A (Resistive) Load rating

Part Number	Module Number	Description
DTC	2	7 Day / 1 Channel / 8 on - 8 off timed events
TC1M	1	24hr / 15 min segments
TCS	1	Staircase timer 30 sec to 20 min timed delay off



# Surge Protection Devices



## Single Phase SPDs

- Suitable for use in TN-C-S (PME) / TNS / TT network systems
- SRG1V1G features a volt free signaling changeover contact & twin earth terminals
- SRGT2CU requires 40A MCB which utilizes one of the consumer unit outgoing ways
- SRGT2CU - Compact design for consumer units
- IEC61643-11



Scan to access the  
CPD course on SPDs  
from our Lewden  
Academy

Part Number	Type	Voltage Protection Level (Up) L/N	Nominal discharge current (In/Imax) 8/20 $\mu$ s	Max continuous operating voltage (Uc)	Lightning impulse current (I imp / I total) 10/350 $\mu$ s	Config.	Total Modules
SRGT2CU	Type 2	<1.5kV	20/40kA	275 VAC	-	1+1 (Connection Type CT2)	1
SRG1V1G*	Type 2	1.25kV	20/40kA	275 VAC	-		2
SRG1123*	Type 1&2	1.3kV	20/50kA	280 VAC	12.5/25kA		2

\* Can be installed in 5MODMC enclosure.



## Single Phase Retrofit Surge Protection - Type 2

- For installations where surge protection cannot be accommodated within the existing consumer unit
- Available in either metal or insulated weatherproof ABS enclosures
- Utilizes SRGT2CU type 2 single phase surge arrester
- Suitable for use in TN-C-S (PME) / TNS / TT network systems

Part Number	Description	Dimensional Drawings
SRG1VCU-RM	IP20, Steel enclosure c/w Main Switch, 40A MCB and SRGT2CU	QFS 2
SRG1VCU-RP	IP55, Plastic Enclosure c/w Main Switch, 40A MCB and SRGT2CU	-



## Three Phase SPDs

- Suitable for use in TN-C-S (PME) / TNS / TT network systems
- SRG1V1G features a volt free signaling changeover contact & twin earth terminals
- SRGT2CU requires 40A MCB which utilizes one of the consumer unit outgoing ways
- SRGT2CU - Compact design for consumer units
- IEC61643-11

Part Number	Type	Voltage Protection Level (Up) L/N	Max continuous operating voltage (Uc)	Configuration	Total Modules
SRG3V1G*	Type 2	1.25kV	275VAC	3+1 (Connection Type CT2)	4
SRG3123 *	Type 1 & 2	1.3 kV	280 VAC	3+1 (Connection Type CT2)	4

\* Can be installed in 5MODMC enclosure.

Nominal discharge current values for SRG3123 as per SRG1V1G

Nominal discharge current values for SRG3123 as per SRG1123

- For dimensional drawings refer to page 26

# Sub Distribution



## 100A DP metal fused switch

- Main switch or RCCB incomer options
- Supplied complete with 63A, 80A, and 100A gG fuses IEC60269-2 (BS88-2) Ø22x58mm
- Easily configurable for top or bottom entry of incoming supply cables
- 3 way Earth bar 25mm<sup>2</sup>

Part Number	Rated Current	Rated voltage	Incomer	Dimensional Drawings
FS6380100	100A	230VAC	Main Switch 100A DP	QFS 2
FR6380100	100A	230VAC	RCCB 100mA class A (Time Delayed)	QFS 2



## 80A domestic service fused switch

- Double Pole Switch
- Insulated Thermosetting Polymer Enclosure
- Supplied complete with 80A type ME fuse and cable duct

Part Number	Rated Current	Rated voltage	Utilisation Category	Fuse	Dimensional Drawings
MSF	80A	230VAC 50Hz	AC21	IEC60269-3 (BS88-3)	MSF

Part Numbers	Descriptions
MSF-CD	MSF100(CD) cable duct for MSF1



## Replacement fuses for FS6380100

Part Numbers	Rating	Type	Breaking Capacity	Standard
FO63A	63A	22x58mm Cylindrical, General Purpose Gg	120kA , 500 VAC	IEC60269-2
FO80A	80A			
F100A	100A			



## Replacement fuses for MSF

Part Numbers	Rating	Type	Breaking Capacity	Standard
ME080A	80A	ME, General Purpose Gg	33kA 415VAC	BS88-3 IEC60269-3

• For dimensional drawings refer to page 26-27

# Electricity Isolation

**NEW**

Provides for electrical isolation between the DNO kWh meter and consumer unit or distribution board. The isolation switch permits the supply to the installation to be interrupted without withdrawing the DNO cut out fuse. Available as either an empty enclosure or with integrated main switch.



Manufactured from durable ABS material, the insulated enclosure features two separate interlocking covers, permitting the installation and separate security sealing of supply and load conductors.

Supplied complete with cable entry plugs to maintain ingress protection when DNO service head and meter are installed prior to consumer unit installation.



Covers can be sealed either by steel wire  $\leq \varnothing 3\text{mm}$  with lead crimp, or flat plastic zip tie  $\leq 4\text{mm}$  width.



## Electricity Isolator Switch

- Available in 2 module enclosure complete with 100A DP Main Switch, or in 4 module enclosure complete with 100A 4P Main Switch.
- Ingress rating IP20 IK07
- Designed for use with 16mm<sup>2</sup> & 25mm<sup>2</sup> double insulated meter tails type 6181Y

Part Number	Enclosure modules	Main Switch	Dimensional Drawings
SLM2-MS	2	100A DP	SLM2
SLM4-MS	4	100A 4P	SLM4



## Electricity Isolator Switch Enclosure

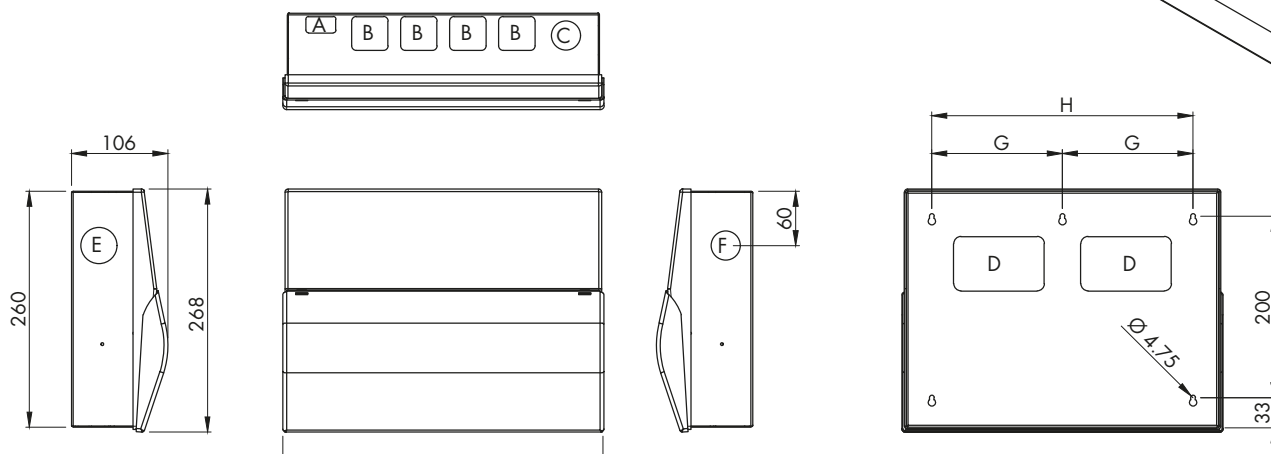
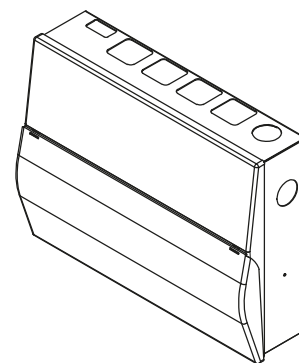
- Available in both 2 module and 4 module enclosure sizes.
- Designed for use with 16mm<sup>2</sup> & 25mm<sup>2</sup> double insulated meter tails type 6181Y
- Ingress rating IP20 IK07

Part Number	Enclosure modules	Main Switch	Dimensional Drawings
SLM2	2	-	SLM2
SLM4	4	-	SLM4

• For dimensional drawings please refer to page 27

# DIMENSIONAL DRAWINGS

## PRO



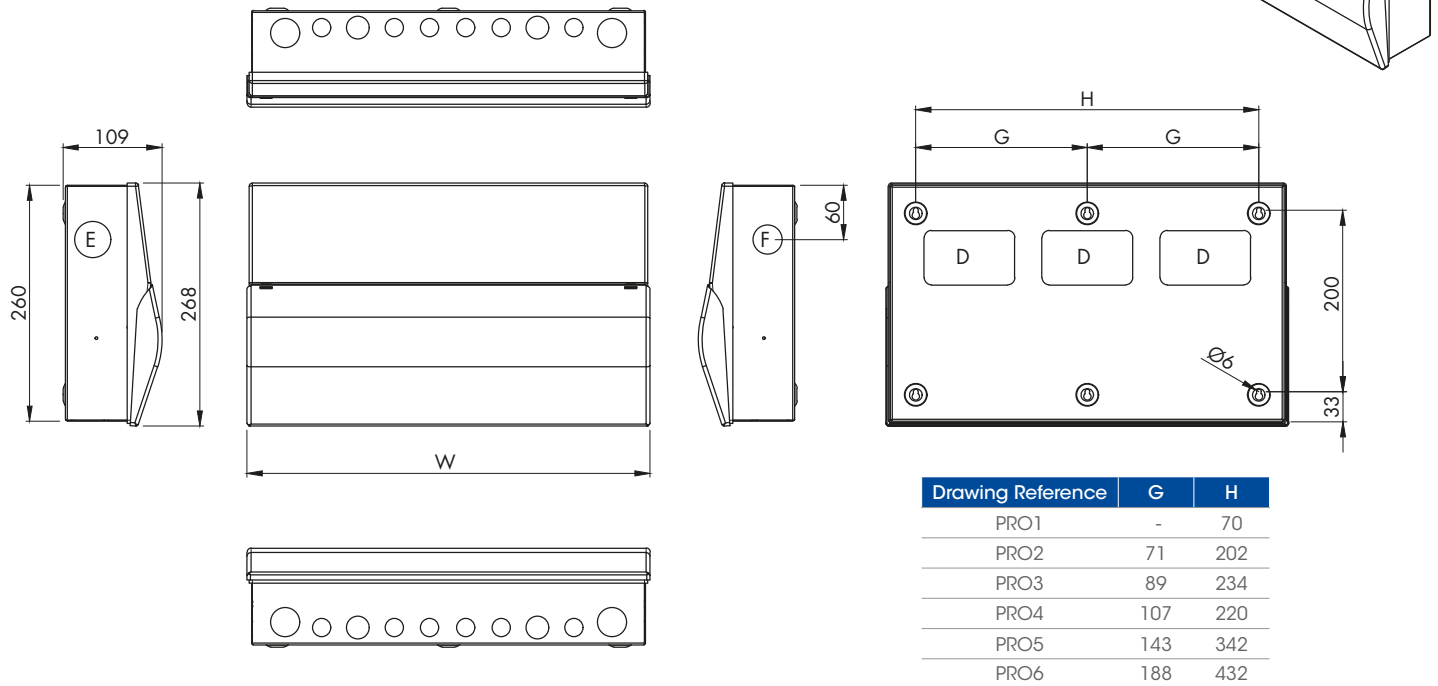
Drawing Reference	G	H
PRO1	-	70
PRO2	71	202
PRO3	89	234
PRO4	107	220
PRO5	143	342
PRO6	188	432

Drawing Ref	Part Number	Enclosure Total modules	Enclosure Width W (mm)	Knockouts Top & Bottom faces			Knockouts Rear face			Knockouts Left face			Knockouts Right face		
				Ref	Size	Qty	Ref	Size	Qty	Ref	Size	Qty	Ref	Size	Qty
PRO1	PRO-MX04M	5	136	A	33x18	2	D	60x60	1	E	Ø32	1	F	Ø25	1
	PRO-MX04R														
	PRO-MCGARAGE-MS														
	PRO-MCGARAGE-63														
	PRO-MC05ENC														
PRO2	PRO-MX08M	9	210	A	33x18	1	D	60x60	2	E	Ø40	1	F	Ø32	1
	PRO-MX08R			B	40x37	1									
	PRO-MC09ENC			C	Ø32	1									
PRO3	PRO-MX10M	11	244	A	33x18	1	D	60x60	2	E	Ø40	1	F	Ø32	1
	PRO-MX10R			B	40x37	1									
	PRO-MC11ENC			C	Ø32	1									
PRO4	PRO-MX12M	13	281	A	33x18	1	D	100x60	2	E	Ø40	1	F	Ø32	1
	PRO-MX12R														
	PRO-MX12XXM														
	PRO-MX12RRMFLEXIA														
PRO5	PRO-MC13ENC	17	353	A	33x18	1	D	100x60	2	E	Ø40	1	F	Ø32	1
	PRO-MX16M														
	PRO-MX16XXM														
	PRO-MX16RRMFLEXIA														
PRO6	PRO-MC17ENC	22	443	A	33x18	1	D	100x60	3	E	Ø40	1	F	Ø32	1
	PRO-MX21M														
	PRO-MX21XXM														
	PRO-MX21RRMFLEXIA														
PRO6	PRO-MC22ENC	22	443	A	33x18	1	D	100x60	3	E	Ø40	1	F	Ø32	1
	PRO-MC22ENC														



# DIMENSIONAL DRAWINGS

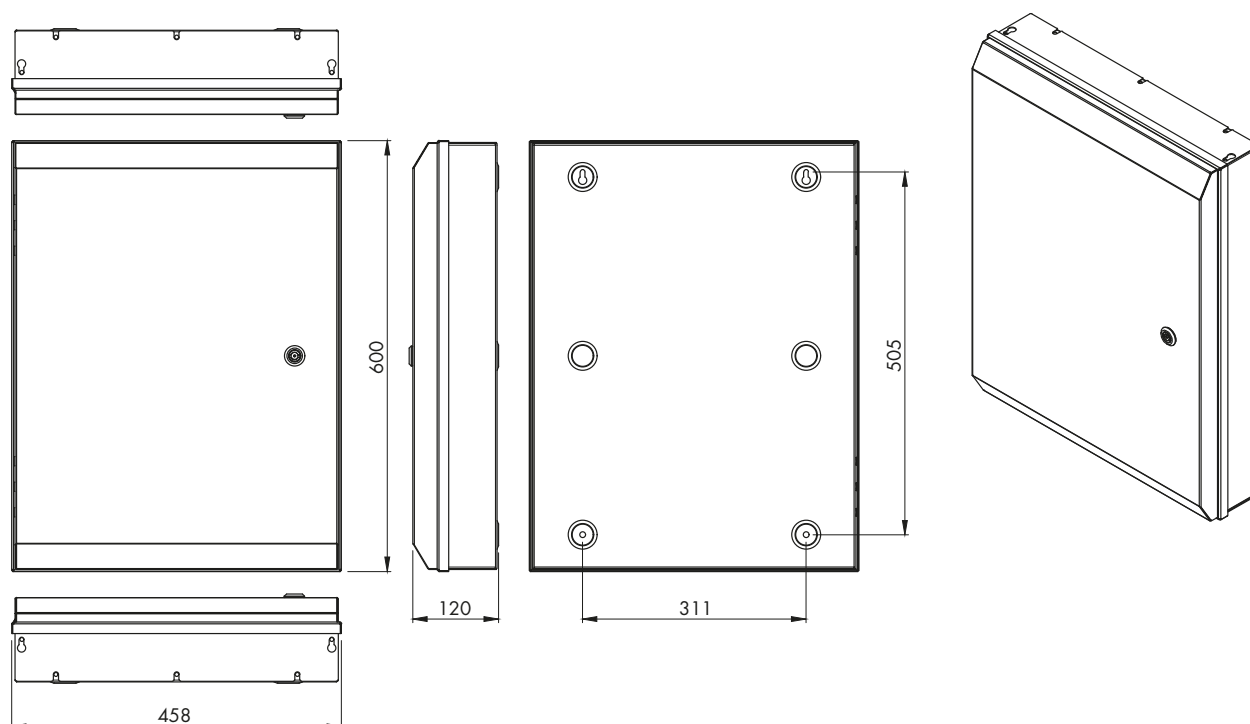
## PRO



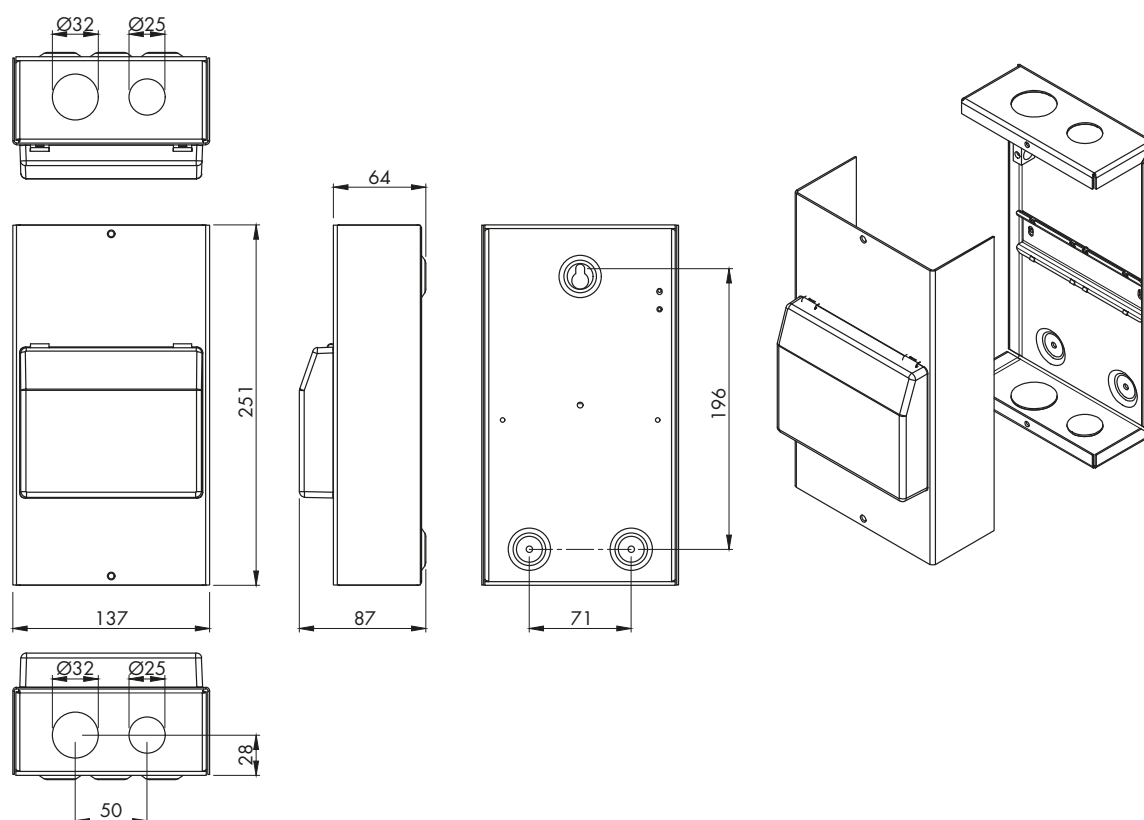
Drawing Ref	Part Number	Enclosure Total modules	Enclosure Width W (mm)	Knockouts Top & Bottom faces			Knockouts Rear face			Knockouts Left face			Knockouts Right face		
				Ref	Size	Qty	Ref	Size	Qty	Ref	Size	Qty	Ref	Size	Qty
PRO1	PRO-R04M	5	136	A	Ø20	2	D	60x60	1	E	Ø32	1	F	Ø25	1
	PRO-R04R				Ø25	1									
	PRO-RGARAGE-MS														
	PRO-RGARAGE-63														
PRO2	PRO-R05ENC	9	210	A	Ø20	3	D	60x60	2	E	Ø40	1	F	Ø32	1
	PRO-R08M				Ø25	1									
	PRO-R08R				Ø32	1									
	PRO-R09ENC														
PRO3	PRO-R10M	11	244	A	Ø20	3	D	60x60	2	E	Ø40	1	F	Ø32	1
	PRO-R10R				Ø25	2									
	PRO-R11ENC				Ø32	1									
	PRO-R12M														
PRO4	PRO-R12R	13	281	A	Ø20	4	D	100x60	2	E	Ø40	1	F	Ø32	1
	PRO-R12XXM				Ø25	2									
	PRO-R12RRMFLEXIA				Ø32	1									
	PRO-R13ENC														
PRO5	PRO-R16M	17	353	A	Ø20	4	D	100x60	2	E	Ø40	1	F	Ø32	1
	PRO-R16XXM				Ø25	2									
	PRO-R16RRMFLEXIA				Ø32	2									
	PRO-R17ENC														
PRO6	PRO-R21M	22	443	A	Ø20	6	D	100x60	3	E	Ø40	1	F	Ø32	1
	PRO-R21XXM				Ø25	2									
	PRO-R21RRMFLEXIA				Ø32	2									
	PRO-R22ENC														

# DIMENSIONAL DRAWINGS

## QFS 1

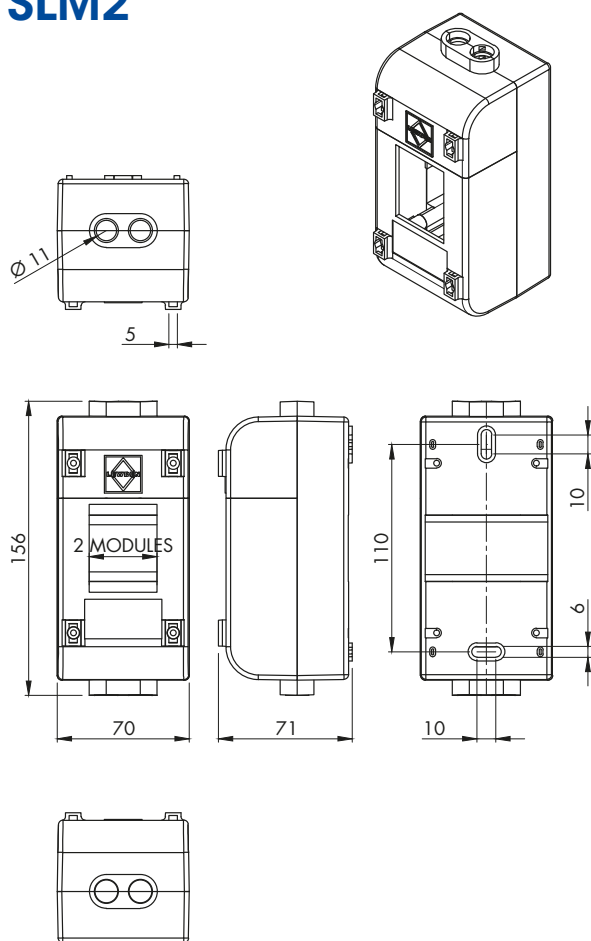


## QFS 2

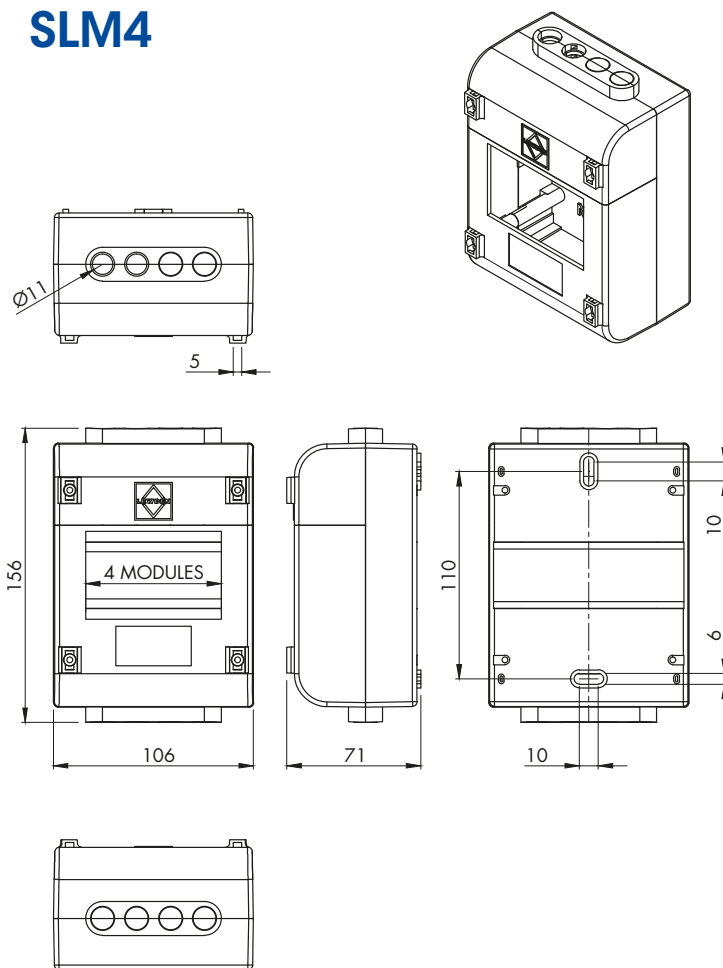


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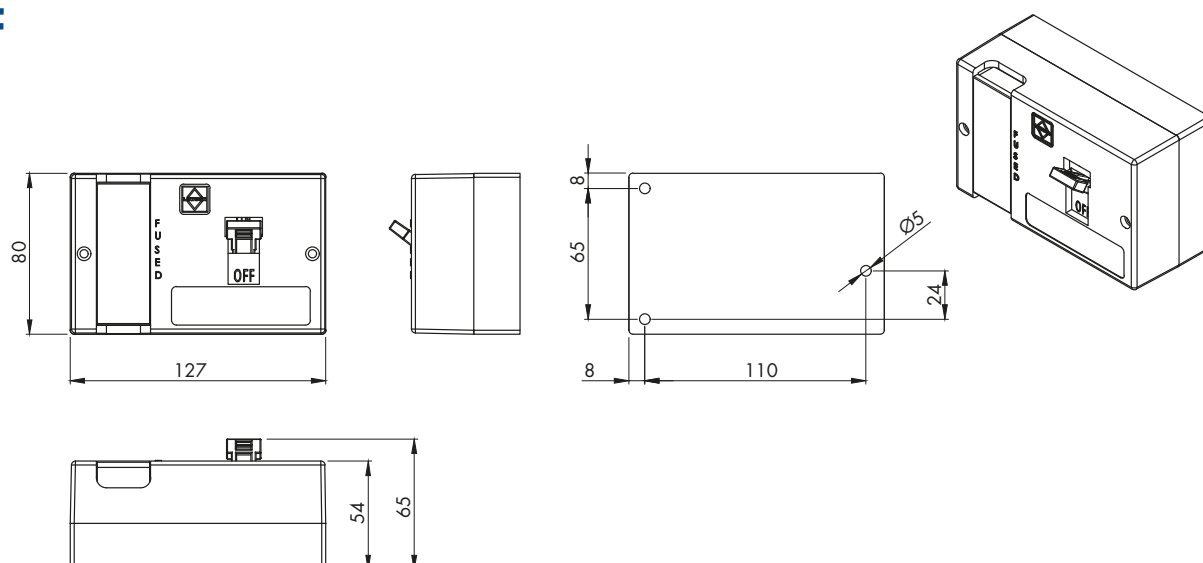
## SLM2



## SLM4



## MSF





**Palazzoli**  
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	TW		SS		PR				
	UB		WD		S				
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