Design Range of Consumer Units

Features Comparison

Feature	Description	Design 10	Design 30
Rectangular Knockouts	Knockouts designed to accommodate common sizes of trunking for surface mounting cables.	●	●*
Grommet Strips	Provided to fit around the rougher edges of the knockouts to protect incoming cables.	●	●
Front cover retained screws	Screws attached to the front cover are retained to prevent loss during the installation	●	●
Cable Clamp	Incoming meter tails can be safely secured, eliminating stress within the switch terminal.	○	●
Cable Protector Plate	Allows cables to enter the rear of the board without the risk of damage from sharp edges.	○	●
Locate & Hold Cover	Locates and holds the cover during installation, reducing the risk of damage, leaving both hands free to fix the cover to the base.	—	●

● Available as standard ○ Available as an accessory — Not Compatible

* Knockouts available by choice on Design 30 range. References ending with a 'K' will contain knockouts.

Hagers metal consumer unit ranges

For many years the Hager name has been synonymous with consumer units in the UK, having manufactured more than 4 million in the UK at our Telford site. Changes in January 2015 to the Wiring Regulations with the publication of Amendment 3 have had an impact on the installation practice for household (residential) consumer units.

What the regulations say:
Amendment 3 states that:
421.1.201
Within domestic (household) premises, consumer units and similar switchgear assemblies shall comply with BS EN 61439 3 and shall:
(i). Have their enclosures manufactured from non-combustible material, or
(ii). Be enclosed in a cabinet or enclosure constructed of non-combustible material and complying with Regulation 132.12.
NOTE 1: Ferrous metal e.g. steel is deemed to be an example of a non-combustible material.
NOTE 2:* the implementation date for this regulation was the 1st January 2016. This does not preclude compliance with this regulation prior to this date.

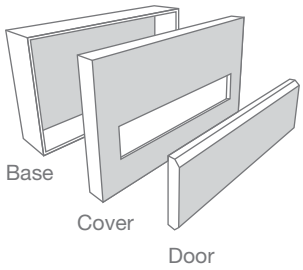
What the regulations mean:
Guidance from BEAMA (British Electrotechnical and Allied Manufacturers Association) who represent the UK manufacturers.

The Intent of regulation 421.1.201 is considered to be, as far as reasonably practicable, to contain any fire within the enclosure and to minimise flames from escaping a consumer unit in the event of a fire.

The following Q&A's cover key points.

1. What is a definition of non-combustible?
There is no published definition for 'non-combustible' that aligns with the intent of regulation 421.1.201. Ferrous metal is deemed to be one example of a non-combustible material that meets the intent of the regulation.

2. What constitutes a 'non-combustible enclosure'?
A non-combustible enclosure includes base, cover, door and any components e.g. hinges, covers, screws and catches, necessary to maintain fire containment. (See diagram 1). Blanks and devices are contained within the non-combustible enclosure.



3. How is account taken of cable entries into a 'non-combustible enclosure' with respect to containment of internal fire and escape of flames?
Good workmanship and proper materials must be applied by the installer. The cable installation entry method shall, as far as is reasonably practicable, maintain the fire containment of the enclosure. Account shall be taken of the manufacturers instructions, if any.

4. What is meant by 'similar switchgear assemblies'?
'Similar switchgear assemblies' are assemblies used for the same fundamental application as consumer units.

5. Does regulation 421.1.201 apply to consumer units and similar switchgear assemblies installed in domestic (household) garages and outbuildings?
Yes, the intent of regulation 421.1.201 is that it applies to consumer units and similar switchgear assemblies to BS EN 61439-3 inside all domestic (household) premises including their integral/attached garages and outbuildings or those in close proximity. See IET on site guide BS 7671:2008 + A3:2015 for more information.

Design *10, 30*

The Hager Design range of consumer units includes surface, dual row and flush options, with multiple solutions based around applications. Whether the unit is required simply for functionality or whether aesthethics are to be considered, we have the solution for you.

Design 10 is the entry level board designed for all applications. As with both models in the range, there is ample cable space available even when RCBOs are fitted. The top mounted terminal rail makes the wiring of the neutral and earth connections neat and simple. Multiple fixing points, and a full metal DIN rail ensure the devices sit square.

Design 30 is an enhanced version designed to be more aesthetically pleasing whilst including extra features to ease installation. Further to the features in the Design 10, the Design 30 comes supplied with a cable clamp installed which allows for incoming meter tails to be safely secured, eliminating stress within the switch terminal. The board is lockable providing the ability to isolate circuits and secure the consumer unit prior to occupation of property. A rear cable protection plate is also included as standard, minimising the risk of damage from sharp edges. Lastly, the Design 30 is available without knockouts to give the ultimate smooth finish for where boards are on display and cables enter from the rear.

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DESIGN

Cable entry
The knockouts are designed to accommodate 100mm x 50mm, 50mm x 50mm and 40mm x 25mm trunking, allowing easy access to the board when surface mounting cables, along with a robust method of achieving the IP rating.

Cable space
Maximum cable space is available even with RCBO's fitted to make installation easier and faster.

Terminal bar
The top mounted terminal rail makes the wiring of the neutral and earth connections neat and simple.

Grommet strip
Grommet strip is included with every board for protection against edges on knockouts.

Rigid top wall
Enhances rigidity to prevent distortion when removing knockouts.

Fixings
Multiple fixing points allow the use of No.8 or No.10 screws, providing a range of options.

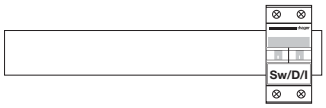
Front cover retained screws
The design of the screw ensures it's retained in the cover preventing loss during the installation.

Full metal DIN rail
Minimised distortion to ensure the devices sit square and are not easily displaced. A stop at the end will ensure correct position of devices.

Snap-able busbar
Can be snapped in to sections to provide quick and easy configuration of circuits. The plastic shroud is easily cut to size with side cutters.

Meter tail entries
Multiple meter tail entries give you the opportunity to utilise knockouts which aren't directly under the main switch, increasing the bend radius on the cables.

VML206



Switch Disconnector Incomer

Metal switch disconnector incomer enclosures, single row from 2 to 20 outgoing ways.

Enclosures come supplied with a full metal DIN rail, 63A or 100A switch disconnector incomer and full complement of earth and neutral terminals along with marking labels, busbar and instructions.

Recommended for use with TT systems when utilising RCBO on outgoing circuits.

Hager also recommend the use of cable clamp (**VA10MT**) for use on TT systems. Available as accessory.

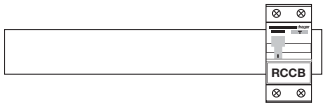
Conforms to BS EN 61439-3 Including Annex ZB (16kA rating).

For accessories see page 17.
For dimensions see page 20.

All Design 10 boards contain top, bottom & rear knockouts.

Description	Size	Cat ref.
2 Way 63A Switch Disconnector Incomer	2	**VML202**
6 Way 63A Switch Disconnector Incomer	3	**VML206**
6 Way 100A Switch Disconnector Incomer	3	**VML106**
10 Way 100A Switch Disconnector Incomer	4	**VML110**
14 Way 100A Switch Disconnector Incomer	5	**VML114**
20 Way 100A Switch Disconnector Incomer	7	**VML120**

VML310H



RCCB Incomer

Metal RCCB incomer enclosures, single row from 2 to 14 outgoing ways.

Enclosures come supplied with a full metal DIN rail, 40A, 63A or 100A 30mA RCCB incomer and full complement of earth and neutral terminals along with marking labels, busbar and instructions.

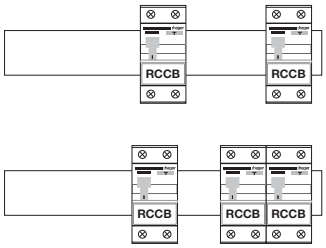
Conforms to BS EN 61439-3 Including Annex ZB (16kA rating).

For accessories see page 17.
For dimensions see page 20.

All Design 10 boards contain top, bottom & rear knockouts.

Description	Size	Cat ref.
2 Way 40A 30mA RCCB Incomer	2	**VML402H**
6 Way 63A 30mA RCCB Incomer	3	**VML406H**
6 Way 100A 30mA RCCB Incomer	3	**VML306H**
10 Way 63A 30mA RCCB Incomer	4	**VML410H**
10 Way 100A 30mA RCCB Incomer	4	**VML310H**
14 Way 100A 30mA RCCB Incomer	5	**VML314H**

VML712TG



Time Delayed RCCB Incomer

Metal RCCB incomer enclosures, single row 12 outgoing ways.

Enclosures come supplied with a full metal DIN rail 100A 100mA time delayed and 63A 30mA RCCB incomers and full complement of earth and neutral terminals along with marking labels, busbar, meter tail clamp and instructions.

Recommended for use with TT systems.

Conforms to BS EN 61439-3 Including Annex ZB (16kA rating).

For accessories see page 17.
For dimensions see page 20.

All Design 10 boards contain top, bottom & rear knockouts.

Description	Size	Cat ref.
12 Way Configurable 100A 100mA Time Delay RCCB 63A 30mA RCCB	5	**VML712TG**
12 Way 100A 100mA Time Delay RCCB 2x63A 30mA RCCB	6	**VML766TG**

Split Load

Metal split load and configurable enclosures, single row from 6 to 16 outgoing ways.

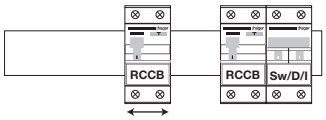
Enclosures come supplied with a full metal DIN rail and 2 RCCBs and full complement of earth and neutral terminals along with marking labels, busbar and instructions.

Conforms to BS EN 61439-3 Including Annex ZB (16kA rating).

For accessories see page 17.
For dimensions see page 20.

All Design 10 boards contain top, bottom & rear knockouts.

VML716C



Description	Size	Cat ref.
6 Way Split Load 3+3 100A Switch 2x63A 30mA RCCB	4	**VML733H**
10 Way Split Load 5+5 100A Switch 2x63A 30mA RCCB	5	**VML755H**
12 Way Split Load 6+6 100A Switch 2x63A 30mA RCCB	6	**VML766H**
10 Way Split Load Configurable 100A Switch 2x 63A 30mA RCCB	5	**VML710C**
16 Way Split Load Configurable 100A Switch 2x 63A 30mA RCCB	7	**VML716C**
10 Way Split Load 5+5 100A Switch 2x80A 30mA RCCB	5	**VML855H**
12 Way Split Load 6+6 100A Switch 2x80A 30mA RCCB	6	**VML866H**
10 Way Split Load Configurable 100A Switch 2x80A 30mA RCCB	**5**	**VML810C**
16 Way Split Load Configurable 100A Switch 2x80A 30mA RCCB	7	**VML816C**

High Integrity

Metal split load and configurable enclosures with ability to protect selected circuits with RCBOs and remainder of circuits split accross two RCCBs. Single row from 10 to 16 outgoing ways.

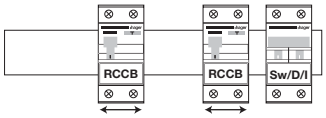
Enclosures come supplied with a full metal DIN rail and 2 RCCBs and full complement of earth and neutral terminals along with marking labels, busbar and instructions.

Conforms to BS EN 61439-3 Including Annex ZB (16kA rating).

For accessories see page 17.
For dimensions see page 20.

All Design 10 boards contain top, bottom & rear knockouts.

VML878R



Description	Size	Cat ref.
10 Way High Integrity Split Load Configurable 100A Switch 2x63A 30mA RCCB	5	**VML710CU**
12 Way High Integrity Split Load Configurable 100A Switch 2x63A 30mA RCCB	6	**VML712CU**
16 Way High Integrity Split Load Configurable 100A Switch 2x63A 30mA RCCB	7	**VML716CU**
10 Way High Integrity Split Load Configurable 100A Switch 2x80A 30mA RCCB	5	**VML810CU**
16 Way High Integrity Split Load Configurable 100A Switch 2x80A 30mA RCCB	7	**VML816CU**
10 Way High Integrity 5+4+1 100A Switch 2x63A 30mA RCCB + 6A RCBO	5	**VML754R**
16 Way High Integrity 7+8+1 100A Switch 2x63A 30mA RCCB + 6A RCBO	7	**VML778R**
10 Way High Integrity 5+4+1 100A Switch 2x80A 30mA RCCB + 6A RCBO	5	**VML854R**
16 Way High Integrity 7+8+1 100A Switch 2x80A 30mA RCCB + 6A RCBO	7	**VML878R**
14 Way Split Load 6+6+2 100A Switch 2x80A 30mA RCCB + 40A 30mA RCCB	7	**VML8662**

Multi Tariff

Metal switch disconnector incomer enclosures, single row, 12 or 18 outgoing ways.

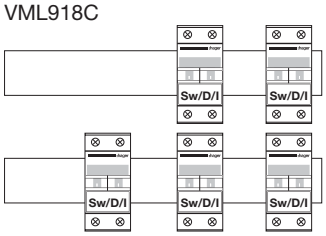
Enclosures come supplied with a full metal DIN rail, multiple switch disconnector incomers and full complement of earth and neutral terminals along with marking labels, busbar and instructions.

Conforms to BS EN 61439-3 Including Annex ZB (16kA rating).

For accessories see page 17.
For dimensions see page 20.

All Design 10 boards contain top, bottom & rear knockouts.

VML918C



Description	Size	Cat ref.
18 Way Twin Tariff Configurable 2x100A Switch	7	**VML918C**
12 Way Multi Tariff 6+5+1 2x100A 1x63A Swtich	6	**VML9651**

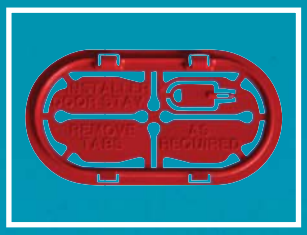
30 DESIGN

Cable entry
The knockouts are designed to accommodate 100mm x 50mm, 50mm x 50mm and 40mm x 25mm trunking, allowing easy access to the board when surface mounting cables, along with a robust method of achieving the IP rating.

Locate and hold cover
Locates and holds the cover during installation, reducing the risk of damage, leaving both hands free to fix the cover to the base.

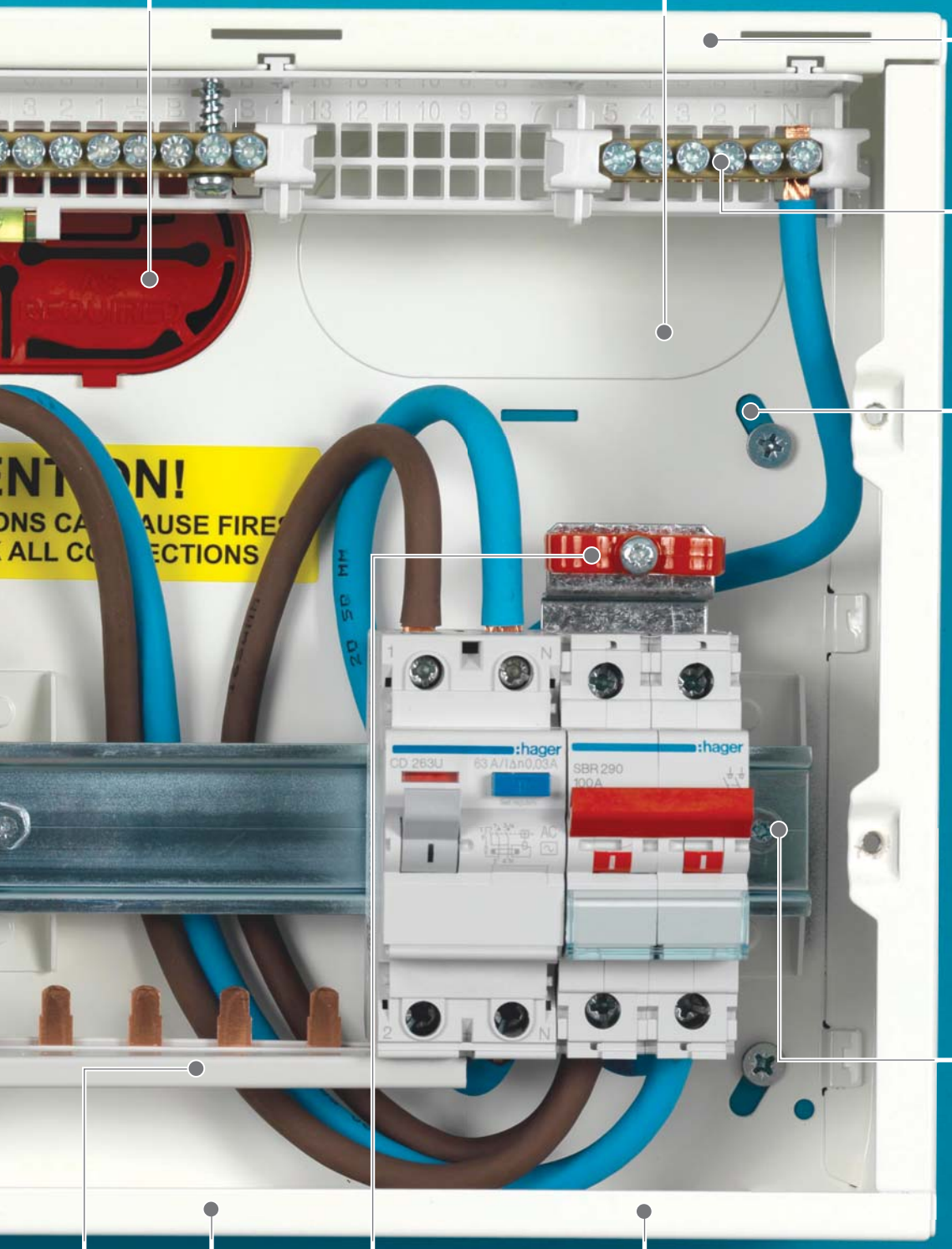
Lockable Front Door
Provides the ability to isolate circuits and secure the consumer unit prior to occupation of property.

Cable protector plate
Allows cables to enter rear of board without the risk of damage from sharp edges. The knockout is removed using suitable tools and then the protector plate is inserted and clipped into place.



Cable space
Maximum cable space is available even with RCBO's fitted to make installation easier and faster.

Grommet Strip
Grommet strip is included with every board for protection against edges on knockouts.



Rigid Top Wall
Enhances rigidity to prevent distortion when removing knockouts.

Terminal bars
The top mounted terminal rail makes the wiring of the neutral and earth connections neat and simple.

Fixings
Multiple fixing points allow the use of No.8 or No.10 screws providing a range of fixing options.

Front cover retained screws
The design of the screw ensures it's retained in the cover preventing loss during the installation.

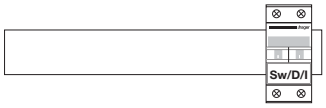
Full metal DIN rail
Minimised distortion to ensure the devices sit square and are not easily displaced. A stop at the end will also stop devices from sliding off.

Snap-able busbar
Can be snapped in to sections to provide quick and easy configuration of circuits. The plastic shroud is easily cut to size with side cutters.

Cable clamp
Incoming meter tails can be safely secured, even with an RCBO next to the main switch, eliminating stress within the switch terminal.

Meter tail entries
Multiple meter tail entries give you the opportunity to utilise knockouts which aren't directly under the main switch, increasing the bend radius on the cables.

VM206



Switch Disconnector

Metal switch disconnector incomer enclosures, single row from 2 to 20 outgoing ways.

Enclosures come supplied with a full metal DIN rail, 63A or 100A switch disconnector incomer and full complement of earth and neutral terminals along with marking labels, busbar, instructions, rear cable protector plate and meter tail clamp.

Recommended for use with TT systems when utilising RCBO on outgoing circuits.

Conforms to BS EN 61439-3 Including Annex ZB (16kA rating).

For accessories see page 17.
For dimensions see page 20.

All boards contain rear cable entry, boards with knockouts also contain top & bottom knockouts - See page 20.

Description	Size	Cat ref.	Cat ref. with knockouts
2 Way 63A Switch Disconnector Incomer	2	**VM202**	**VM202K**
6 Way 63A Switch Disconnector Incomer	3	**VM206**	**VM206K**
6 Way 100A Switch Disconnector Incomer	3	**VM106**	**VM106K**
10 Way 100A Switch Disconnector Incomer	4	**VM110**	**VM110K**
14 Way 100A Switch Disconnector Incomer	5	**VM114**	**VM114K**
20 Way 100A Switch Disconnector Incomer	7	**VM120**	**VM120K**

VM310H

RCCB Incomer

Metal RCCB incomer enclosures, single row from 2 to 14 outgoing ways.

Enclosures come supplied with a full metal DIN rail, 40A, 63A or 100A 30mA RCCB incomer and full complement of earth and neutral terminals along with marking labels, busbar, instructions, rear cable protector plate and meter tail clamp.

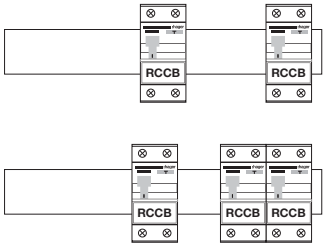
Conforms to BS EN 61439-3 Including Annex ZB (16kA rating).

For accessories see page 17.
For dimensions see page 20.

All boards contain rear cable entry, boards with knockouts also contain top & bottom knockouts - See page 20.

Description	Size	Cat ref.	Cat ref. with knockouts
2 Way 40A 30mA RCCB Incomer	2	**VM402H**	**VM402HK**
6 Way 63A 30mA RCCB Incomer	3	**VM406H**	**VM406HK**
6 Way 100A 30mA RCCB Incomer	3	**VM306H**	**VM306HK**
10 Way 63A 30mA RCCB Incomer	4	**VM410H**	**VM410HK**
10 Way 100A 30mA RCCB Incomer	4	**VM310H**	**VM310HK**
14 Way 100A 30mA RCCB Incomer	5	**VM314H**	**VM314HK**

VM712TG



Time Delayed RCCB Incomer

Metal RCCB incomer enclosures, single row 12 outgoing ways.

Enclosures come supplied with a full metal DIN rail 100A 100mA time delayed and 63A 30mA RCCB incomers and full complement of earth and neutral terminals along with marking labels, busbar, instructions, rear cable protector plate and meter tail clamp.

Recommended for use with TT systems.

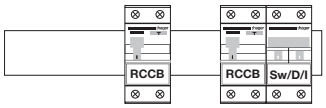
Conforms to BS EN 61439-3 Including Annex ZB (16kA rating).

For accessories see page 17.
For dimensions see page 20.

All boards contain rear cable entry, boards with knockouts also contain top & bottom knockouts - See page 20.

Description	Size	Cat ref.	Cat ref. with knockouts
12 Way Configurable 100A 100mA Time Delay RCCB 63A 30mA RCCB	5	**VM712TG**	**VM712TGK**
12 Way 100A 100mA Time Delay RCCB 2*63A 30mA RCCB	6	**VM766TG**	**VM766TGK**

VM716C



Split Load

Metal split load and configurable enclosures, single row from 6 to 16 outgoing ways.

Enclosures come supplied with a full metal DIN rail and 2 RCCBs and full complement of earth and neutral terminals along with marking labels, busbar, instructions, rear cable protector plate and meter tail clamp.

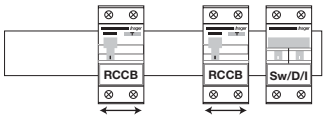
Conforms to BS EN 61439-3 Including Annex ZB (16kA rating).

For accessories see page 17.
For dimensions see page 20.

All boards contain rear cable entry, boards with knockouts also contain top & bottom knockouts - See page 20.

Description	Size	Cat ref.	Cat ref. with knockouts
6 Way Split Load 3+3 100A Switch 2x63A 30mA RCCB	4	**VM733H**	**VM733HK**
10 Way Split Load 5+5 100A Switch 2x63A 30mA RCCB	5	**VM755H**	**VM755HK**
12 Way Split Load 6+6 100A Switch 2x63A 30mA RCCB	6	**VM766H**	**VM766HK**
10 Way Split Load Configurable 100A Switch 2x 63A 30mA RCCB	5	**VM710C**	**VM710CK**
16 Way Split Load Configurable 100A Switch 2x 63A 30mA RCCB	7	**VM716C**	**VM716CK**
10 Way Split Load 5+5 100A Switch 2x80A 30mA RCCB	5	**VM855H**	**VM855HK**
12 Way Split Load 6+6 100A Switch 2x80A 30mA RCCB	6	**VM866H**	**VM866HK**
10 Way Split Load Configurable 100A Switch 2x 80A 30mA RCCB	5	**VM810C**	**VM810CK**
16 Way Split Load Configurable 100A Switch 2x80A 30mA RCCB	7	**VM816C**	**VM816CK**

VM878R



High Integrity

Metal split load and configurable enclosures with ability to protect selected circuits with RCBOs and remainder of circuits split accross two RCCBs. Single row from 10 to 16 outgoing ways.

Enclosures come supplied with a full metal DIN rail and 2 RCCBs and full complement of earth and neutral terminals along with marking labels, busbar, instructions, rear cable protector plate and meter tail clamp.

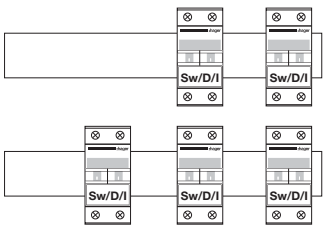
Conforms to BS EN 61439-3 Including Annex ZB (16kA rating).

For accessories see page 17.
For dimensions see page 20.

All boards contain rear cable entry, boards with knockouts also contain top & bottom knockouts - See page 20.

Description	Size	Cat ref.	Cat ref. with knockouts
10 Way High Integrity Split Load Configurable 100A Switch 2x 63A 30mA RCCB	5	**VM710CU**	**VM710CUK**
16 Way High Integrity Split Load Configurable 100A Switch 2x 63A 30mA RCCB	7	**VM716CU**	**VM716CUK**
10 Way High Integrity Split Load Configurable 100A Switch 2x 80A 30mA RCCB	5	**VM810CU**	**VM810CUK**
16 Way High Integrity Split Load Configurable 100A Switch 2x 80A 30mA RCCB	7	**VM816CU**	**VM816CUK**
10 Way High Integrity 5+4+1 100A Switch 2x 63A 30mA RCCB + 6A RCBO	5	**VM754R**	**VM754RK**
16 Way High Integrity Split Load 7+8+1 100A Switch 2x 63A 30mA RCCB + 1x RCBO	7	**VM778R**	**VM778RK**
10 Way High Integrity 5+4+1 100A Switch 2x 80A 30mA RCCB + 6A RCBO	5	**VM854R**	**VM854RK**
16 Way High Integrity Split Load 7+8+1 100A Switch 2x 80A 30mA RCCB + 1x RCBO	7	**VM878R**	**VM878RK**
14 Way Split Load 6+6+2 100A Switch 2x 80A 30mA RCCB plus 1x 40A 30mA RCCB	7	**VM8662**	**VM8662K**

VM918C



Multi Tariff

Metal switch disconnector incomer enclosures, single row, 12 or 18 outgoing ways.

Enclosures come supplied with a full metal DIN rail, multiple switch disconnector incomers and full complement of earth and neutral terminals along with marking labels, busbar, instructions, rear cable protector plate and meter tail clamp.

Conforms to BS EN 61439-3 Including Annex ZB (16kA rating).

For accessories see page 17.
For dimensions see page 20.

All boards contain rear cable entry, boards with knockouts also contain top & bottom knockouts - See page 20.

Description	Size	Cat ref.	Cat ref. with knockouts
18 Way Twin Tariff Configurable 2x100A Switch	7	**VM918C**	**VM918CK**
12 Way Multi Tariff 6+5+1 2x100A 1x63A Switch	6	**VM9651**	**VM9651K**

Design 10
Flush Consumer Unit

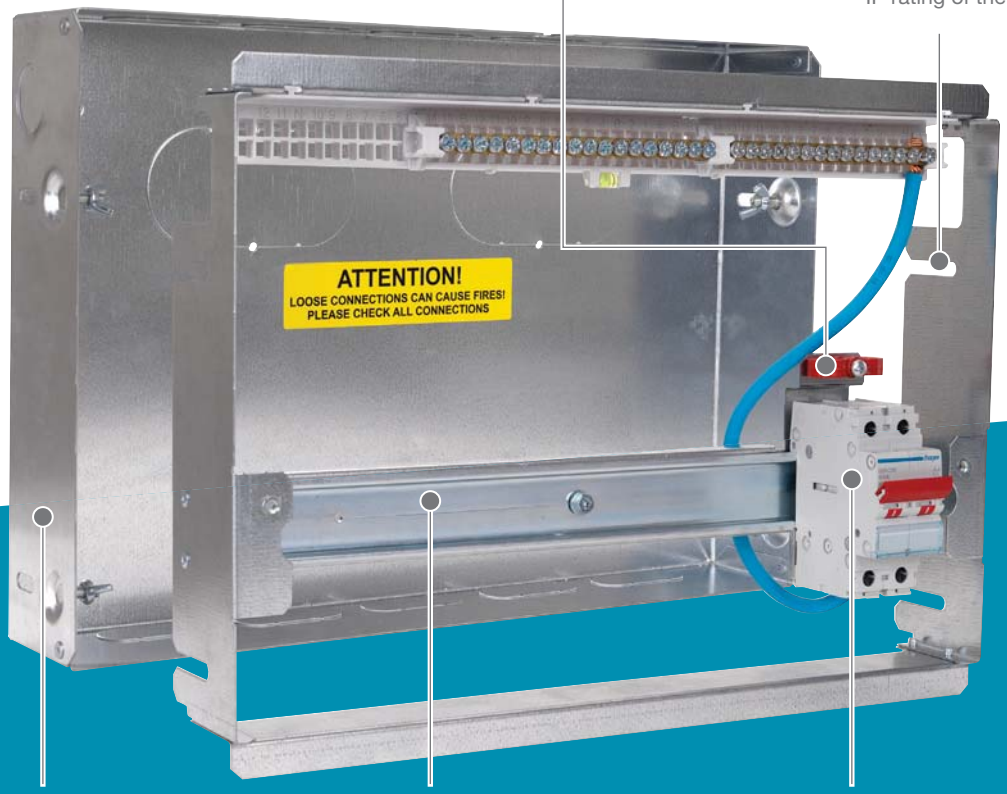
Hager's new flush consumer unit conforming to Amendment 3 of the wiring regulations has been designed specifically for installation in solid or hollow walls. This design strategy allows the back box alone to be installed during the construction, removing the risk of the devices and terminations becoming contaminated with building materials, damaged or stolen and also means factory connections do not need to be disconnected.

The internal adjustable frame houses the terminal bars and devices and has top and bottom flanges that sit on the finished wall surface. This ensures that the front cover will sit flat on to the surface of the wall, with all devices protruding evenly through the front cover without any time consuming adjustments.

Cover & door
The front cover and door assembly complete the consumer unit. When installed the cover and door protrude 31mm from the finished surface of the wall at its maximum depth.

Cable clamp
Cable clamps come as standard on our flush fit boards to help with securing the tails in place inside the board.

Adjustable depth
To allow for a range of installation depths within a wall, the frame is adjustable. There are flanges on the frame which sit on the finished surface of the wall, helping to ensure that the devices always protrude through the front cover a uniform amount, helping to maintain the IP rating of the board.

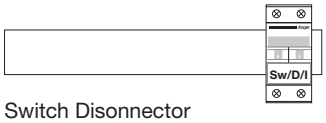


Knockouts
Knockouts on the top, bottom, sides and rear of the back box allowing multiple cable entry options. Raised sides on the box give a reference for plasterboarding. Oval knockouts can be protected with 38mm open grommet. **(VMGROM)**

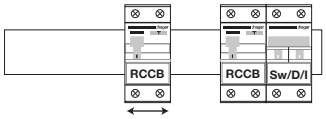
Installation depth
The full metal DIN rail comes with extra support to allow the frame to be adjustable for depth. This allows the board to be installed at a range of depths into the wall. The minimum depth is 72mm allowing for 60mm of studwork and 12mm of plasterboard.

Removable frame
The frame contains all of the devices, neutral and earth terminations and the cable clamp. This can be removed whilst the building work is completed and quickly re-installed into the back-box later. It is then secured with the use of the 4 wing nuts removing the need for any special tools.

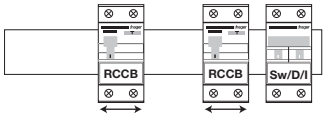
VMLF110



Switch Disonnector



Split Load



High Integrity

Design 10 Flush Consumer Unit

Conforms to BS EN 61439-3 Including Annex ZB (16kA Rating).

Enclosures come supplied with a full metal DIN rail, earth and neutral connections along with incoming device(s), busbar, grommet strip, rear cable entry plate, cable clamp, marking labels and instructions.

Knockouts located top, bottom and rear of base - See page 21.

Details of the installation method can be found on page 22. For dimensions see page 21.

Min depth in wall 72mm.

Switch Disconnector Incomer	Size	Cat ref.
10 Way Flush 100A Switch Disconnector Incomer	4	**VMLF110**
14 Way Flush 100A Switch Disconnector Incomer	5	**VMLF114**
20 Way Flush 100A Switch Disconnector Incomer	7	**VMLF120**

Split Load		
10 Way Flush 100A Switch 2x63A 30mA RCCB	5	**VMLF710C**
12 Way Flush 100A Switch 2x63A 30mA RCCB	6	**VMLF712C**
16 Way Flush 100A Switch 2x63A 30mA RCCB	7	**VMLF716C**
10 Way Flush 100A Switch 2x80A 30mA RCCB	5	**VMLF810C**
12 Way Flush 100A Switch 2x80A 30mA RCCB	6	**VMLF812C**
16 Way Flush 100A Switch 2x80A 30mA RCCB	7	**VMLF816C**

High Integrity		
10 Way Flush High Integrity 100A Switch 2x63A 30mA RCCB	5	**VMLF710CU**
12 Way Flush High Integrity 100A Switch 2x63A 30mA RCCB	6	**VMLF712CU**
16 Way Flush High Integrity 100A Switch 2x63A 30mA RCCB	7	**VMLF716CU**
10 Way Flush High Integrity 100A Switch 2x80A 30mA RCCB	5	**VMLF810CU**
12 Way Flush High Integrity 100A Switch 2x80A 30mA RCCB	6	**VMLF812CU**
16 Way Flush High Integrity 100A Switch 2x80A 30mA RCCB	7	**VMLF816CU**

Design Range
Dual Row Consumer Units

Dual row boards have been designed to accommodate large numbers of outgoing ways (20+), facilitate installation at Part M height, where there can be limited space due to doorways and allow the option to segregate circuit protection and control.

Covers
Design 10 dual row boards come with a single cover and dual doors. Design 30 Dual Row boards come with separate covers, each with locate and hold tabs to ease installation.

Knockouts
Rear knockouts allow cable entry to the relevent section of the board. Top and bottom knockouts are rectangular to allow for trunking. Rear knockouts can be protected against sharp edges with supplied grommit strip or cable protector plate (supplied as standard with Design 30). Additional cable protector plates can be purchased for either board Ref: **VM02CE** (pack of 5)

Cable access
Open access under terminal bars to allow flexibility with cabling routes.

Cable clamp
Incoming meter tails can be safely secured, eliminating stress within the switch terminal. Also able to acommodate an RCBO next to the main switch. Supplied as standard with Design 30 boards, optional extra on Design 10 boards.

Snap-able busbar
Can be snapped in sections to provide quick and easy configuration of circuits.

VML11010

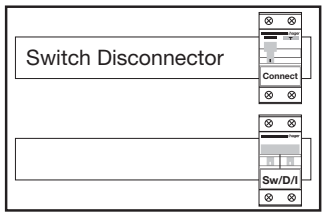
Design 10 Dual Row Consumer Unit

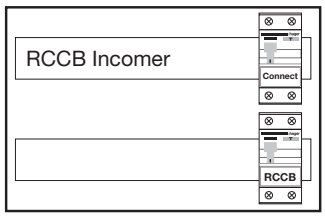
Conforms to BS EN 61439-3 Including Annex ZB (16kA Rating).

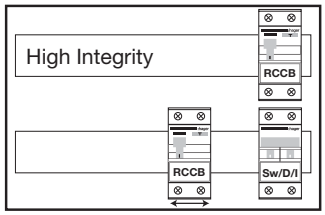
Enclosures come supplied with a full metal DIN rail, earth and neutral connections along with incoming device(s), busbar, marking labels and instructions.

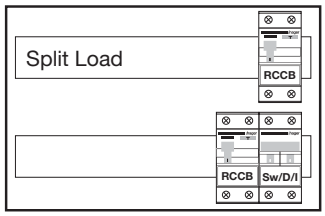
For dimensions see page 21.

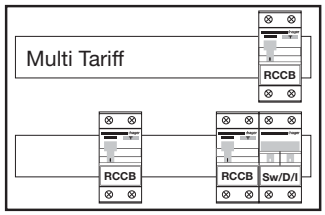
Knockouts located top, bottom and rear of base - See page 21.











Switch Disconnector - Dual Row	Size	Cat ref.
6+6 Way 100A Switch Disconnector	3	**VML10606**
10+10 Way 100A Switch Disconnector	4	**VML11010**
14+14 Way 100A Switch Disconnector	5	**VML11414**
20+20 Way 100A Switch Disconnector	7	**VML12020**

RCCB Incomer - Dual Row		
6+6 Way 100A 30mA RCCB Incomer	3	**VML30606H**

Split Load - Dual Row		
4+6 Way 100A Switch 2x63A 30mA RCCB	3	**VML746H**
8+10W 100A Switch 2x63A 30mA RCCB	4	**VML70810H**
12+14W 100A Switch 2x63A 30mA RCCB	5	**VML71214H**
18+20W 100A Switch 2x63A 30mA RCCB	7	**VML71820H**
4+6 Way 100A Switch 2x80A 30mA RCCB	3	**VML846H**
8+10W 100A Switch 2x80A 30mA RCCB	4	**VML80810H**
12+14W 100A Switch 2x80A 30mA RCCB	5	**VML81214H**
18+20W 100A Switch 2x80A 30mA RCCB	7	**VML81820H**

High Integrity - Dual Row		
HI Configurable 8+10 Way 100A Switch 2x63A	4	**VML70810CU**
HI Configurable 12+14 Way 100A Switch 2x63A	5	**VML71214CU**
HI Configurable 18+20 Way 100A Switch 2x63A	7	**VML71820CU**
HI Configurable 8+10 Way 100A Switch 2x80A	4	**VML80810CU**
HI Configurable 12+14 Way 100A Switch 2x80A	5	**VML81214CU**
HI Configurable 18+20 Way 100A Switch 2x80A	7	**VML81820CU**

Multi Tariff - Dual Row		
10 Way Split Load 5+5 100A Switch 2x63A RCCB 1x63A RCCB Incomer 14 Ways	4	**VML755714H**

VML24H

Garage Board

Enclosure comes complete with 40A 30mA RCCB Incomer, 32A MCB and 6A MCB, earth & neutral connections, busbar, grommet strip, marking labels & Instructions.

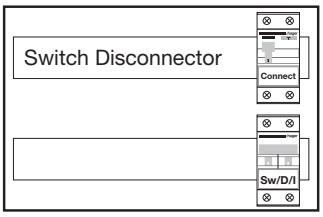
Knockouts (where applicable) are located top, bottom & rear of base - See page 20.

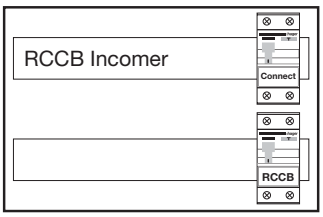
Cable protector plate for rear knockouts is available as an accessory. **(VM02CE)**

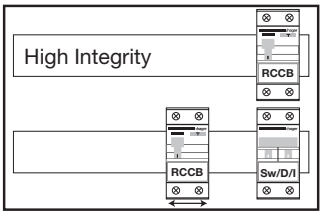
For dimensions see page 20.

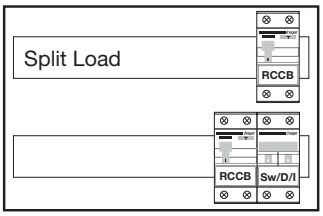
Garage Board	Size	Cat ref.
2 Way 40A 30mA RCCB with 1x32A & 1x6A MCB	2	**VML24H**

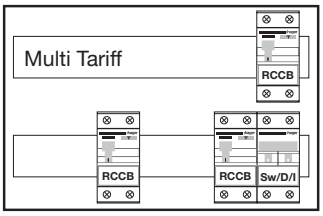
VM11010











Design 30 Dual Row Consumer Unit

Conforms to BS EN 61439-3 Including Annex ZB (16kA Rating)

Enclosures come supplied with a full metal DIN rail, earth and neutral connections along with incoming device(s), busbar, cable protector plate, grommet strip, cable clamp, marking labels and instructions

Knockouts (where applicable) located top, bottom and rear of base - See page 21.

For dimensions see page 21.

Switch Disconnector - Dual Row	Size	Cat ref.	Cat Ref. with Knockouts
6+6 Way 100A Switch Disconnector	3	**VM10606**	**VM10606K**
10+10 Way 100A Switch Disconnector	4	**VM11010**	**VM11010K**
14+14 Way 100A Switch Disconnector	5	**VM11414**	**VM11414K**
20+20 Way 100A Switch Disconnector	7	**VM12020**	**VM12020K**
RCCB Incomer - Dual Row			
6+6 Way 100A 30mA RCCB Incomer	3	**VM30606H**	**VM30606HK**
Split Load - Dual Row			
8+10W 100A Switch 2x63A 30mA RCCB	4	**VM70810H**	**VM70810HK**
12+14W 100A Switch 2x63A 30mA RCCB	5	**VM71214H**	**VM71214HK**
18+20W 100A Switch 2x63A 30mA RCCB	7	**VM71820H**	**VM71820HK**
4+6 Way 100A Switch 2x63A 30mA RCCB	3	**VM746H**	**VM746HK**
8+10W 100A Switch 2x80A 30mA RCCB	4	**VM80810H**	**VM80810HK**
12+14W 100A Switch 2x80A 30mA RCCB	5	**VM81214H**	**VM81214HK**
18+20W 100A Switch 2x80A 30mA RCCB	7	**VM81820H**	**VM81820HK**
4+6 Way 100A Switch 2x80A 30mA RCCB	3	**VM846H**	**VM846HK**
High Integrity - Dual Row			
HI Configurable 8+10 Way 100A Switch 2x63A	4	**VM70810CU**	**VM70810CUK**
HI Configurable 12+14 Way 100A Switch 2x63A	5	**VM71214CU**	**VM71214CUK**
HI Configurable 18+20 Way 100A Switch 2x63A	7	**VM71820CU**	**VM71820CUK**
HI Configurable 8+10 Way 100A Switch 2x80A	4	**VM80810CU**	**VM80810CUK**
HI Configurable 12+14 Way 100A Switch 2x80A	5	**VM81214CU**	**VM81214CUK**
HI Configurable 18+20 Way 100A Switch 2x80A	7	**VM81820CU**	**VM81820CUK**
Multi Tariff - Dual Row			
10 Way Split Load 5+5 100A Switch 2x63A RCCB 1x63A RCCB Incomer 14 Ways	4	**VM755714H**	**VM755714HK**

VM24H

Garage Board

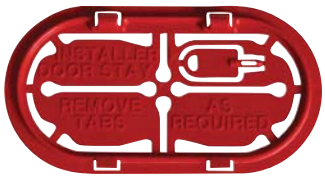
Enclosure comes complete with 40A 30mA RCCB Incomer, 32A MCB and 6A MCB, earth & neutral connections, busbar, cable protector plate, grommet strip, marking labels & instructions.

Knockouts (where applicable) are located top, bottom & rear of base - See page 20.

Cable clamp supplied to secure incoming meter tails.

For dimensions see page 20.

Garage Board	Size	Cat ref.	Cat Ref. with Knockouts
2 Way 40A 30mA RCCB with 1x32A & 1x6A MCB	2	**VM24H**	**VM24HK**



VM02CE

Cable Protector Plate

Provides a safe and smooth entry for cables into the rear of the consumer unit.

Designed to fit into the aperture left by the removal of a rear knockout on the Design 10 or Design 30 Consumer Unit. (Included as standard with the Design 30 board)

VM01CE: Simply insert protector plate and bend over tabs inside board.
VM02CE: Break away sections as required and simply push into place.

Description	Quantity	Cat ref.
Cable Protector Plate (Metal)	1	**VM01CE**
Cable Protector Plate (Insulated)	5	**VM02CE**

VA10MT

Cable Clamp

Secures supply cables on entry to main incoming device, eliminating any movement of the cables being transmitted to the terminals.

Simply insert supply cables through clamp into incoming device & secure with fixing provided.

(Included as standard with the Design 30 board)

Description	Cat ref.
Cable Clamp for Meter Tails	**VA10MT**

VMHBL

Health & Safety Lock

Provides the ability to lock the consumer unit during the installation process.

Can only be used with Design 30 Consumer Units.

Description	Cat ref.
Health & Safety Padlock Bracket	**VMHBL**
Padlock	**JK25A**

VMLOCK

Key Lock

Allows door to be lockable. Simply remove the centre of the lock surround and the knockout behind, and fit lock.

Can only be used with Design 30 Consumer Units.

Description	Cat ref.
Design 30 Door Locking Kit	**VMLOCK**

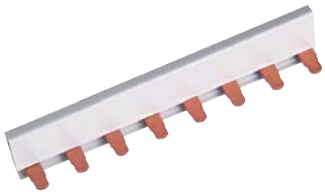
Grommets & Grommet Strip

Grommets for protecting against sharp edges on knockouts

Description	Quantity	Cat ref.
Grommet strip 5 metres	1 Strip	**VM05GS**
38mm open grommet for use with VMLF* back boxes	10	**VMGROM**

VAN00

JK01B



VAB08

Other Accessories

Description	Quantity	Cat ref.
1 Module busbar blank	25	**JK01B**
Surge protecion kit	1	**VA02SPD**
Neutral link	1	**VAN00**
Dual tariff link kit	1	**VAK0D**
Split load link kit	1	**VAK0S**
Triple tariff link kit	1	**VAK0T**
8 Module busbar	1	**VAB08**
12 Module busbar	1	**VAB12**
16 Module busbar	1	**VAB16**
21 Module busbar	1	**VAB21**
Terminal bar support clips	5	**VAT00**
Terminal bar 2 way	1	**VAT02**
Terminal bar 3 way	1	**VAT03**
Terminal bar 4 way	1	**VAT04**
Terminal bar 5 way	1	**VAT05**
Terminal bar 6 way	1	**VAT06**
Terminal bar 7 way	1	**VAT07**
Terminal bar 8 way	1	**VAT08**
Terminal bar 9 way	1	**VAT09**
Terminal bar 10 way	1	**VAT10**
Terminal bar 11 way	1	**VAT11**
Terminal bar 12 way	1	**VAT12**
Terminal bar 13 way	1	**VAT13**
Terminal bar 14 way	1	**VAT14**
Terminal bar 15 way	1	**VAT15**
Terminal bar 16 way	1	**VAT16**
Terminal bar 17 way	1	**VAT17**
Terminal bar 18 way	1	**VAT18**
Terminal bar 19 way	1	**VAT19**
Terminal bar 20 way	1	**VAT20**
Terminal bar 21 way	1	**VAT21**
Terminal bar 22 way	1	**VAT22**
Terminal bar 23 way	1	**VAT23**
Terminal bar 24 way	1	**VAT24**
Label pack	1	**VAP00**

MTN163

Single Pole MCBs - 6kA Type B

Protection and control of circuits against overloads and short circuits for use in domestic installations.

Technical data
Type B tripping characteristics complies with BS EN 60898.
Calibration temperature 30°C
Breaking capacity: 6kA
Voltage rating: 230V
Current rating: 6 - 63A
Electrical operations: 20,000

Connection capacity
Rigid = 25mm²
Flexible = 16mm²

Rating	Width (17.5mm)	Cat ref.
6A	1 Mod	**MTN106**
10A	1 Mod	**MTN110**
16A	1 Mod	**MTN116**
20A	1 Mod	**MTN120**
25A	1 Mod	**MTN125**
32A	1 Mod	**MTN132**
40A	1 Mod	**MTN140**
50A	1 Mod	**MTN150**
63A	1 Mod	**MTN163**

ADN120

Single Pole RCBOs - Sensitivity 30mA (6kA)

Compact protection devices which combine the overcurrent functions of an MCB with the earth fault functions of an RCCB in a single unit.

Technical Data
Insulated DIN clip
Complies with BS EN 61009, IEC1009
Sensitivities (fixed)
30mA
Breaking capacity: 6kA
Flying neutral lead: 200mm

Connection Capacity
Rigid = 16mm²
Flexible = 10mm²

Application
1 module devices provide a compact solution for installation in consumer units.

These devices are 1pole & solid neutral.

Operating Voltage
127-230V AC

Current rating	Width (17.5mm)	Type B Cat ref.
6A	1 Mod	**ADN106**
10A	1 Mod	**ADN110**
16A	1 Mod	**ADN116**
20A	1 Mod	**ADN120**
32A	1 Mod	**ADN132**
40A	1 Mod	**ADN140**
45A	1 Mod	**ADN145**
50A	1 Mod	**ADN150**

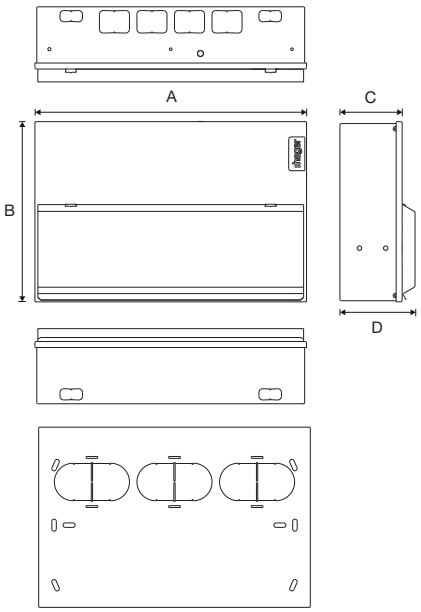
MZN175

Locking Kit

Allows MCB's, RCCB's and RCBO's to be locked in the off position.

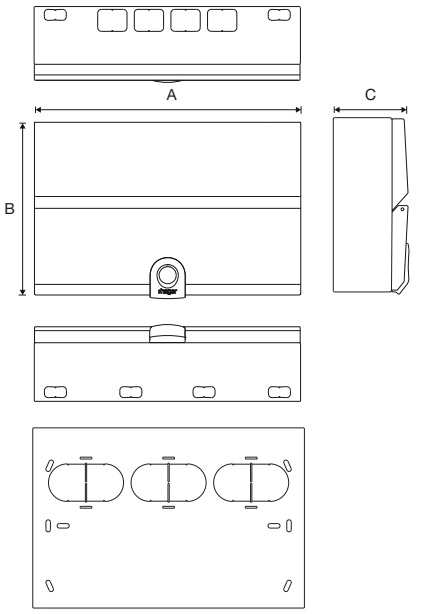
Will accept two padlocks with hasps of 4.75mm diameter max (supplied without padlock).

Description	Cat ref.
Padlockable locking kit for MCB, RCCB & RCBO (Padlock not included)	**MZN175**
Padlock with 2 keys 3/4"	**JK25A**



Design 10

Dimensions (mm)	Enclosure Size					
	2	3	4	5	6	7
A	155	227	299	370	406	478
B	246	246	246	246	246	246
C	83	83	83	83	83	83
D	100	100	100	100	100	100
Number of Knockouts						
Top Face 30 x 15 (mm)	2	2	2	2	2	2
Top Face 40 x 30 (mm)	0	2	4	4	6	6
Back 100 x 50 (mm)	1	1	1	3	3	3
Bottom Face 30 x 15 (mm)	2	3	4	4	5	5

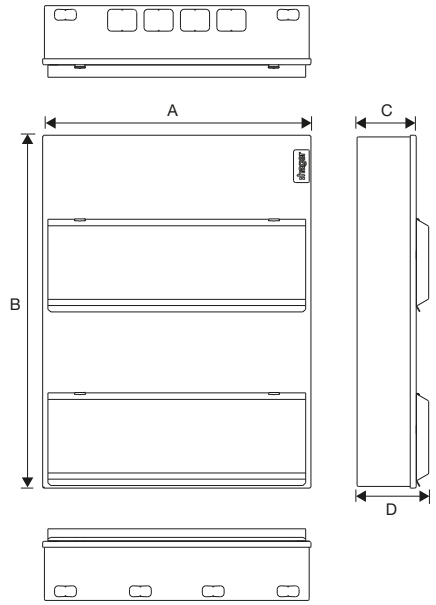


Design 30

Dimensions (mm)	Enclosure Size					
	2	3	4	5	6	7
A	149	221	293	364	400	472
B	240	240	240	240	240	240
C	102.5	102.5	102.5	102.5	102.5	102.5
Number of Knockouts						
Top Face 30 x 15 (mm)	2	2	2	2	2	2
Top Face 40 x 30 (mm)	0	2	4	4	6	6
Back 100 x 50 (mm)	1	1	1	3	3	3
Bottom Face 30 x 15 (mm)	2	3	4	4	5	5

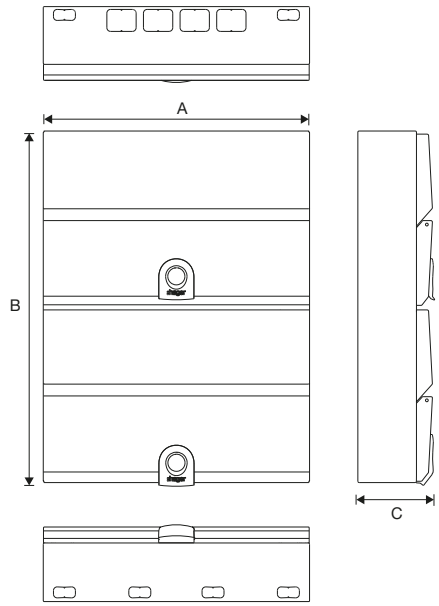
Torque Settings

	Pz No.	(mm)	(mm)		Cables >1.5mm² Tightening torque (N.m)		Cables ≤1.5mm² Tightening torque (N.m)		Cable Stripping (mm)
					Single Cable	Multi Cables	Single Cable	Multi Cable	
Consumer unit terminals									
Earth and neutral terminal bars	2	6.5	-	-	2	2	1.5	1.5	10
Isolation									
SB switch disconnectors	2	6.5	-	-	3.6	3.6	3.6	3.6	15
Circuit protection									
MTN MCB	2	6.5	-	-	2.8	2.8	2.8	2.8	13
NBN/NCN/NDN MCB	2	6.5	-	-	2.8	2.8	2.8	2.8	13
RCBO	2	5.5	-	-	2.1	2.1	2.1	2.1	13
RCCB	2	5.5	-	-	2.8	2.8	2.8	2.8	13



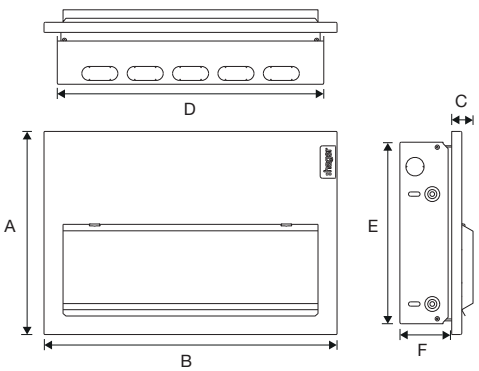
Dual Row Design 10

Dimensions (mm)	Enclosure Size				
	3	4	5	6	7
A	227	299	370	406	478
B	486	486	486	486	486
C	83	83	83	83	83
D	100	100	100	100	100
Number of Knockouts					
Top Face 30 x 15 (mm)	2	2	2	2	2
Top Face 40 x 30 (mm)	2	4	4	6	6
Back 100 x 50 (mm)	2	2	6	6	6
Bottom Face 30 x 15 (mm)	3	4	4	5	5



Dual Row Design 30

Dimensions (mm)	Enclosure Size				
	3	4	5	6	7
A	221	293	364	400	472
B	480	480	480	480	480
C	102.5	102.5	102.5	102.5	102.5
Number of Knockouts					
Top Face 30 x 15 (mm)	2	2	2	2	2
Top Face 40 x 30 (mm)	2	4	4	6	6
Back 100 x 50 (mm)	2	2	6	6	6
Bottom Face 30 x 15 (mm)	3	4	4	5	5



Flush Design 10

Dimensions (mm)	Enclosure Size			
	4	5	6	7
A	282	282	282	282
B	335	407	443	515
C	32	32	32	32
D	298	370	406	478
E	252	252	252	252
F	72	72	72	72
Number of Knockouts				
Top Face 50 x 20 (mm)	4	5	6	7
Bottom Face 50 x 20 (mm)	4	5	6	7
Back 100 x 50 (mm)	2	2	2	3
Left Face 20.8 (mm)	1	1	1	1

All product(s) must be installed by a suitably competent electrician giving consideration to its intended use and in accordance with the current edition of BS 7671 (IET Wiring Regulations).

The Electricity at Work regulations and the Health and Safety at Work Act shall be complied with.

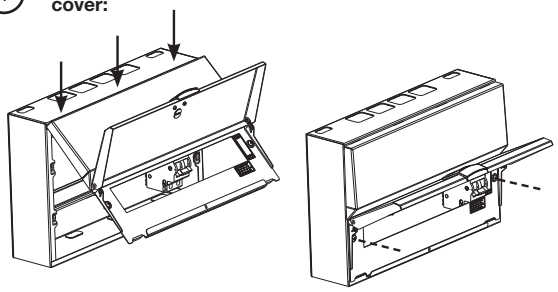
Only equipment and arrangements specified in Hager's technical documentation / catalogue shall be used. Install in the horizontal plane only.

Example shown below is Design 30, same principle applies to Design 10 & Dual Row boards.

Important notice:
To prevent potential overheating from loose connections the installer shall check connections are tight to the torque levels stated on page 20 prior to energizing this board. This check should include factory made connections which may have loosened in transit.

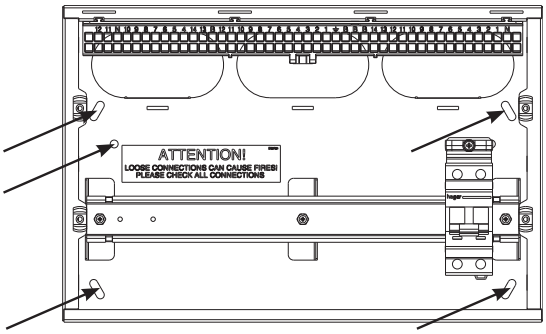
Good workmanship and proper materials must be applied by the installer. The cable entry method shall, as far as reasonably practical, maintain the non-combustable arrangement of the enclosure. Account shall be taken of these instructions.

1 **Removal of front cover:**



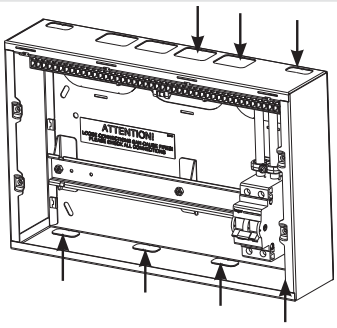
Easy fit front cover assembly allows the cover to be located at the top of the board and locked into place which enables the cover to stay secure when replacing or removing during an installation.

2 **Wall Fixing:**



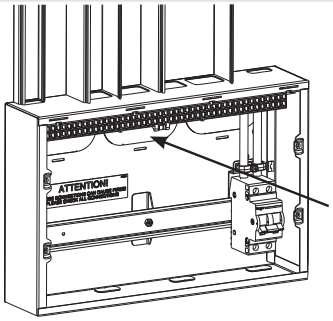
The units have multiple fixing points that will suit No.8 & No.10 screws

3 **Cable entry facilities:**



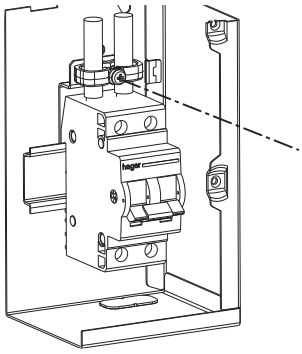
Electrical knockouts are provided for top or bottom cable entry and are sized and positioned to suit standard trunking i.e 100x50mm, 50x50mm & 40x25mm. Grommet strip is provide to protect the cables when entering the board.

4



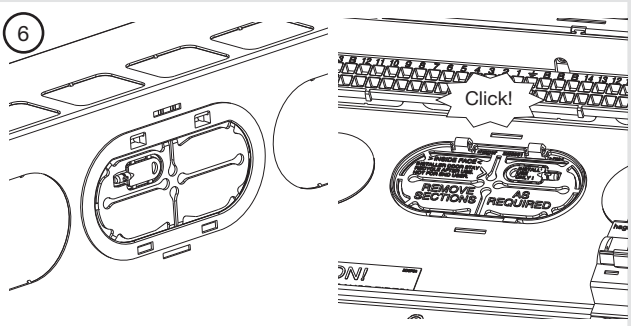
Rear cable entries shall enter thorough selected rear knockout; once the knockout is removed the cable protector bracket can be fitted to allow safe installation of the cables. Grommet strip lengths: **Small EKO** – 79mm, **Large EKO** – 127mm **Rear EKO** – 255mm

5



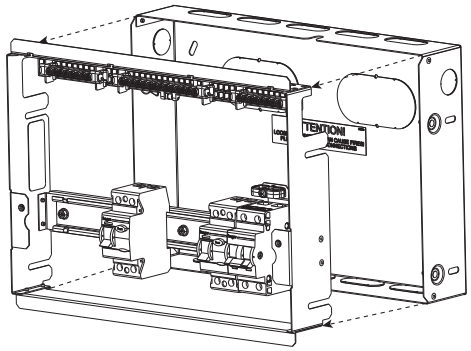
Incoming meter tails can be safely secured using the cable clamp system eliminating stress within the switch terminal.

6



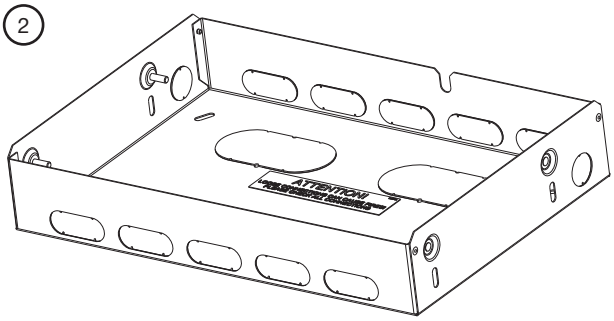
Rear cable entries shall enter thorough selected rear knockout; once the knockout is removed the cable protector plate can be fitted in order to avoid any damage to the cable insulation or sheath during installation.

1



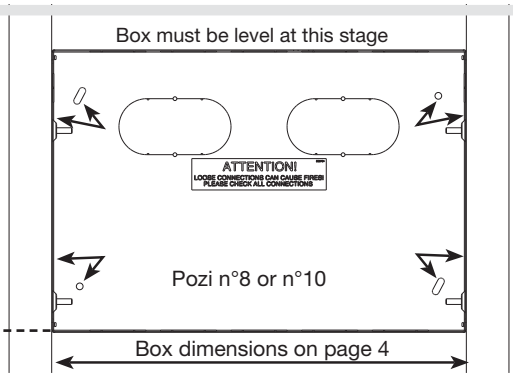
Remove internal chassis.
(No requirement to disconnect factory cable connections)

2



Remove required knockouts before fixing to stud wall & use provided grommet strip or grommet accessory VMGROM for cable protection.

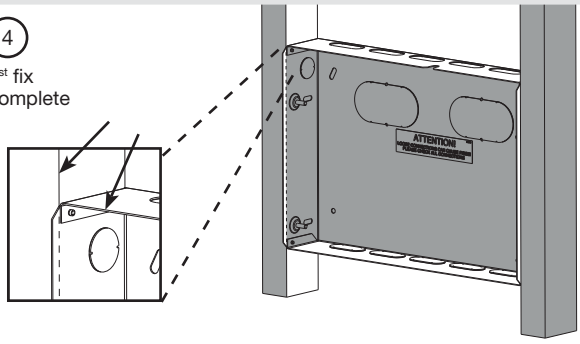
3



Back box fixing points
Fixing height 1320mm ± 50mm from back box bottom face to the finished floor (Part M)

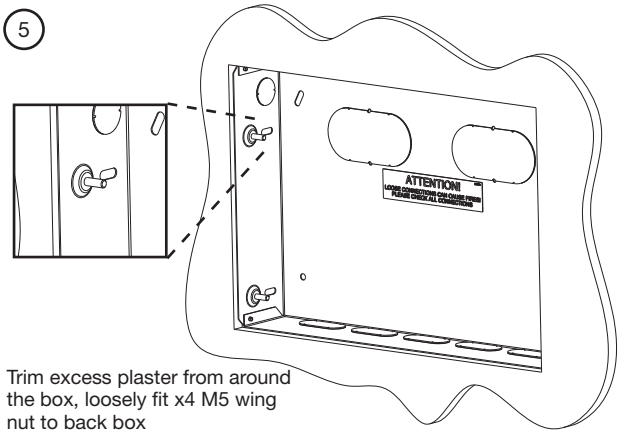
4

1st fix complete



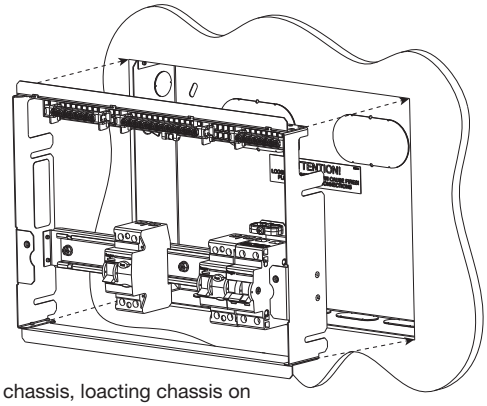
Top & bottom edge to be flush with front of stud work, with left and right edges protruding slightly from stud work

5



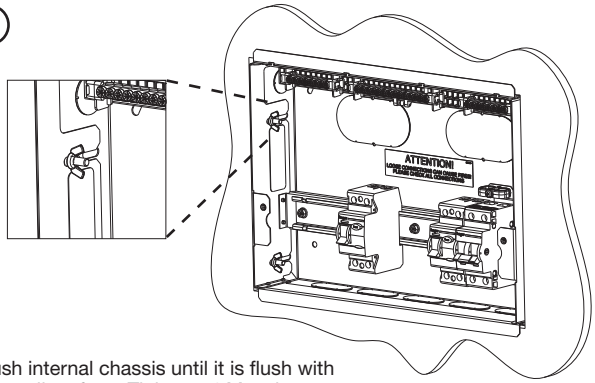
Trim excess plaster from around the box, loosely fit x4 M5 wing nut to back box

6



Offer up internal chassis, loacting chassis on the metal studs

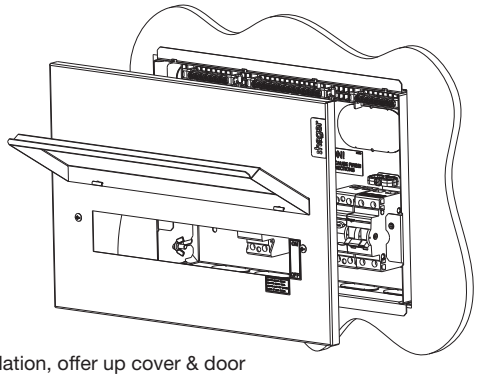
7



Push internal chassis until it is flush with the wall surface. Tighten x4 M5 wing nut to secure internal chassis

8

2nd fix complete



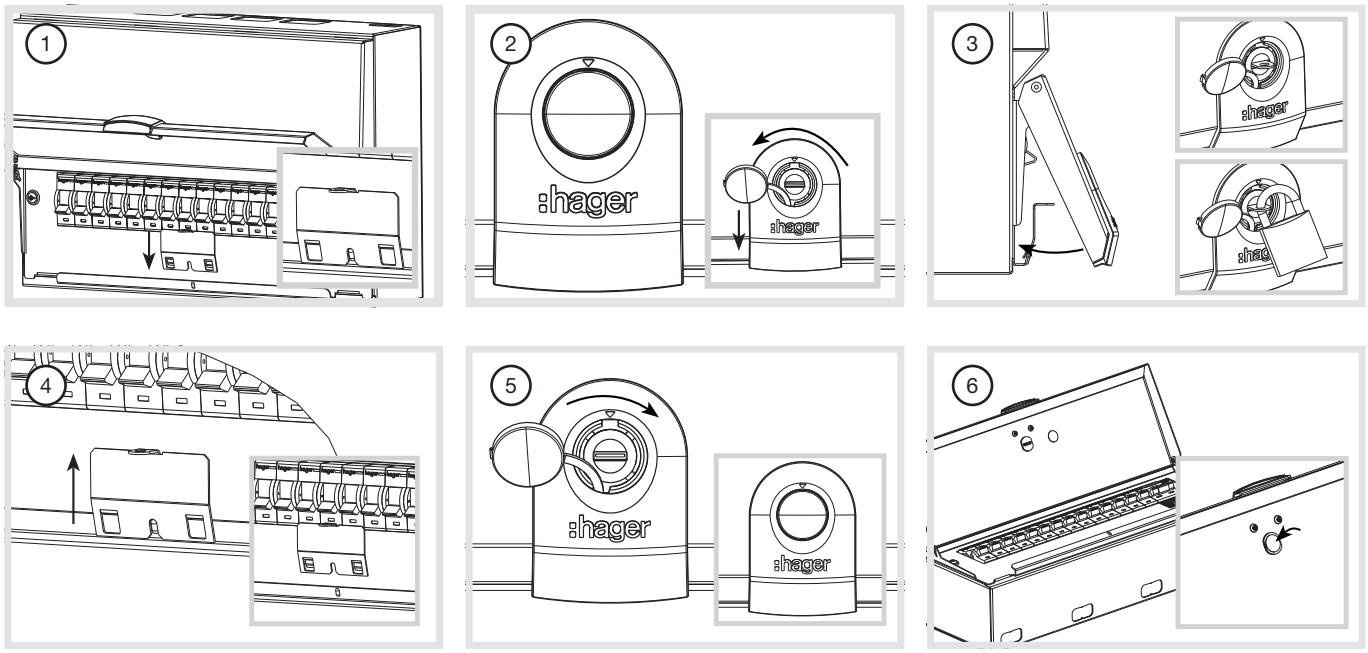
After wiring installation, offer up cover & door assembly, secure with the captive screws.

VMHBL

Temporary locking facility (For use with Design 30 Consumer Units)

This device allows the board to be isolated for the safety of tradespersons during construction of a building. The lock surround forms no part of the non-combustable enclosure. With the lock surround removed, the rating of IP2XC is maintained.

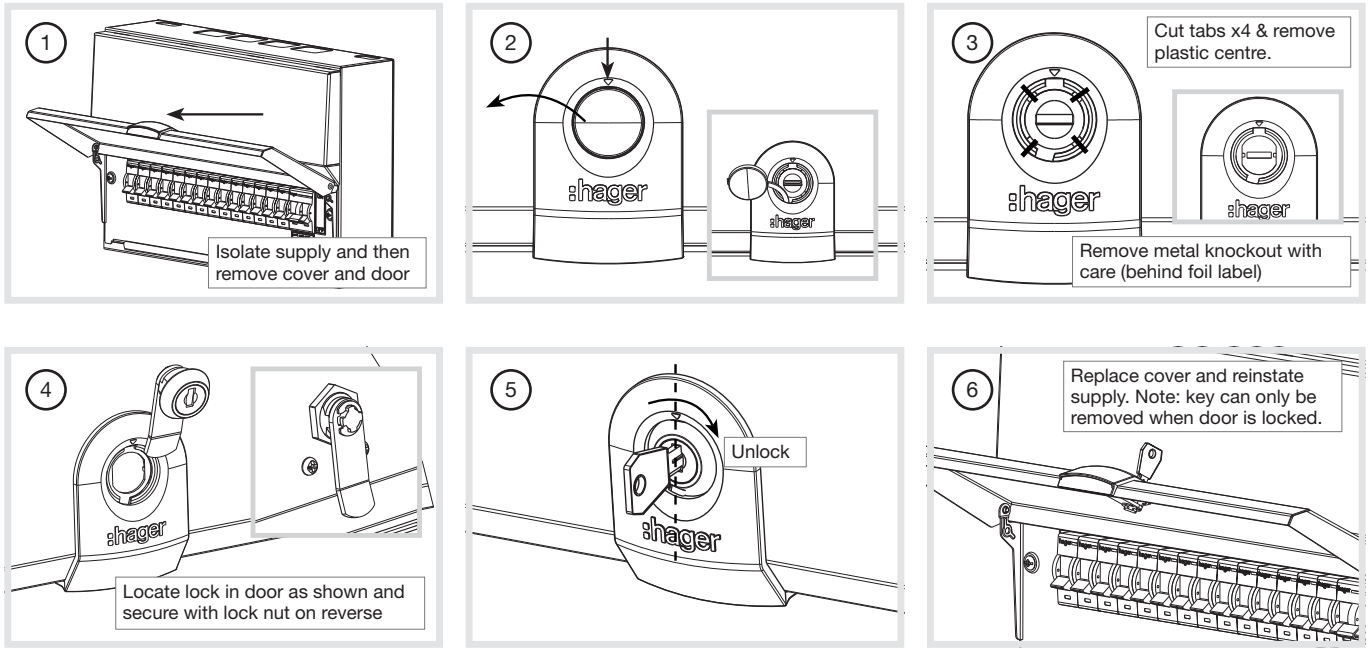
Padlock shown is available: ref. JK25A



VMLOCK

Keylock for use with Design 30 Consumer Units

This device allows the board to be locked to prevent unauthorised access.

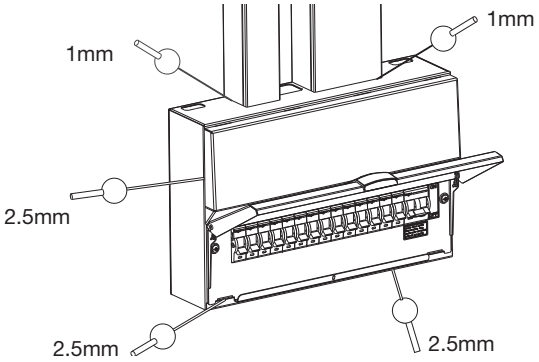


Cable Access:
Cable access into the metal consumer unit must maintain the integrity of the non-combustable consumer unit so far as reasonably practicable. This can generally be achieved by the installer ensuring that cable access holes they make in the enclosure do not to leave gaps greater than:

· 1.0 mm for the horizontal top surface and
· 2.5 mm for all other surfaces of the enclosure that are accessible after installation.

For rear cable access, the minimum number of knockout(s) shall be removed and a cable protector fitted; see illustration above.

Tests on Hager consumer units have indicated that there is no specific need for fire rated cable glands or intumescent sealing in addition to the guidance below with respect to achieving a non-combustible enclosure. However, this does not preclude the designer / installer using fire rated cable glands or intumescent sealing or other methods, should they consider necessary.



Fitting Hager MCBs and RCBOs:
Only equipment and arrangements specified in Hager's technical documentation / catalogue shall be used.

1. Isolate the electrical supply from the consumer unit.
2. Remove the front cover.
3. Fully slacken the lower terminal of the device.
4. Fully open the bottom device clip (fig 1.)

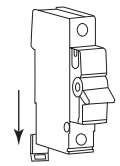


fig 1.

5. Locate the device onto the din rail, and busbar. Ensure that the busbar tooth is within the device terminal cage.
6. Close the bottom device clip.
7. While holding the device firmly onto the busbar, fully tighten the lower terminal screw.
8. After fitting all outgoing devices and connecting all outgoing cables, please check the tightness of all cable connections. This should include all factory made connections, which may have loosened during installation or transit.

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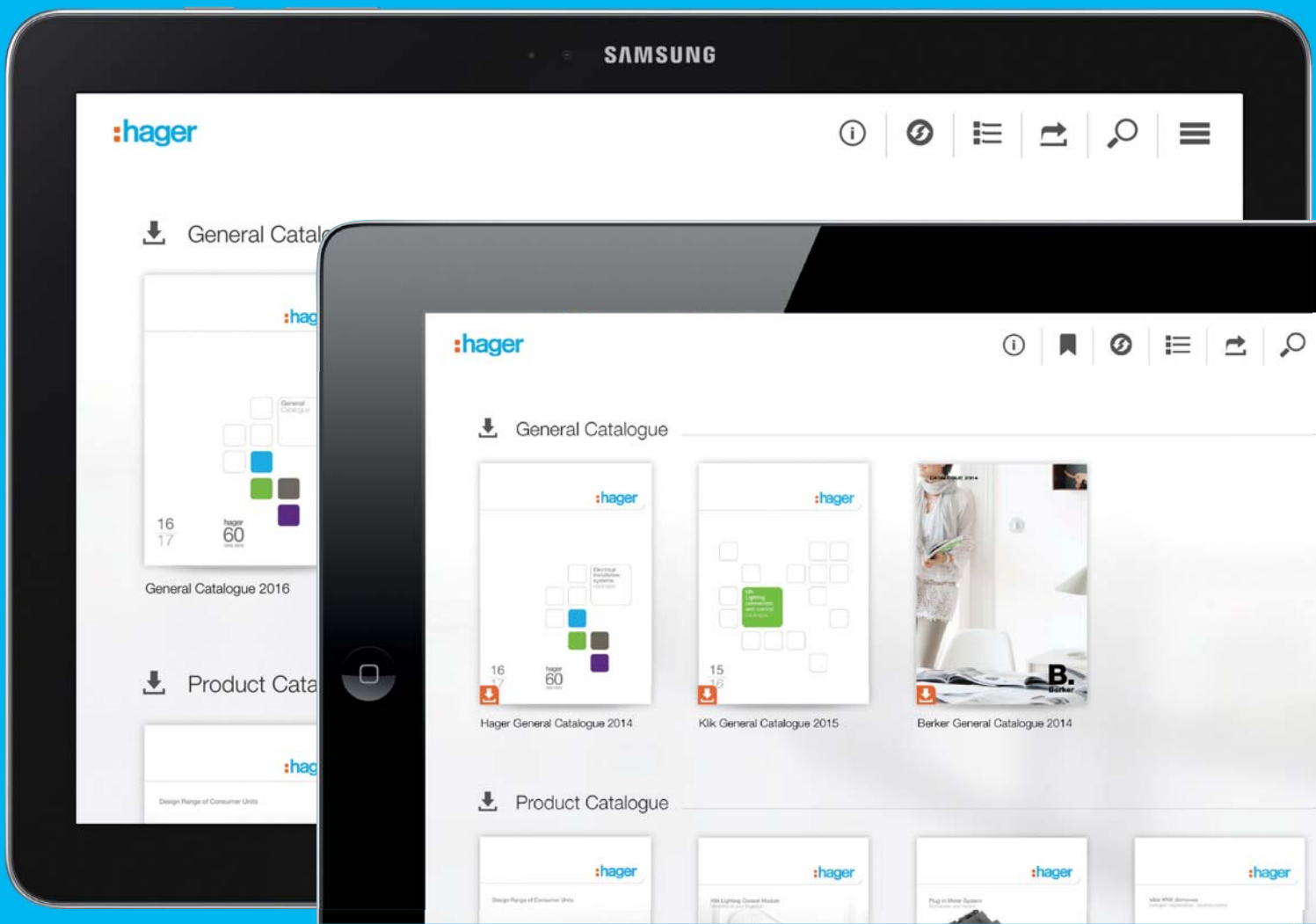

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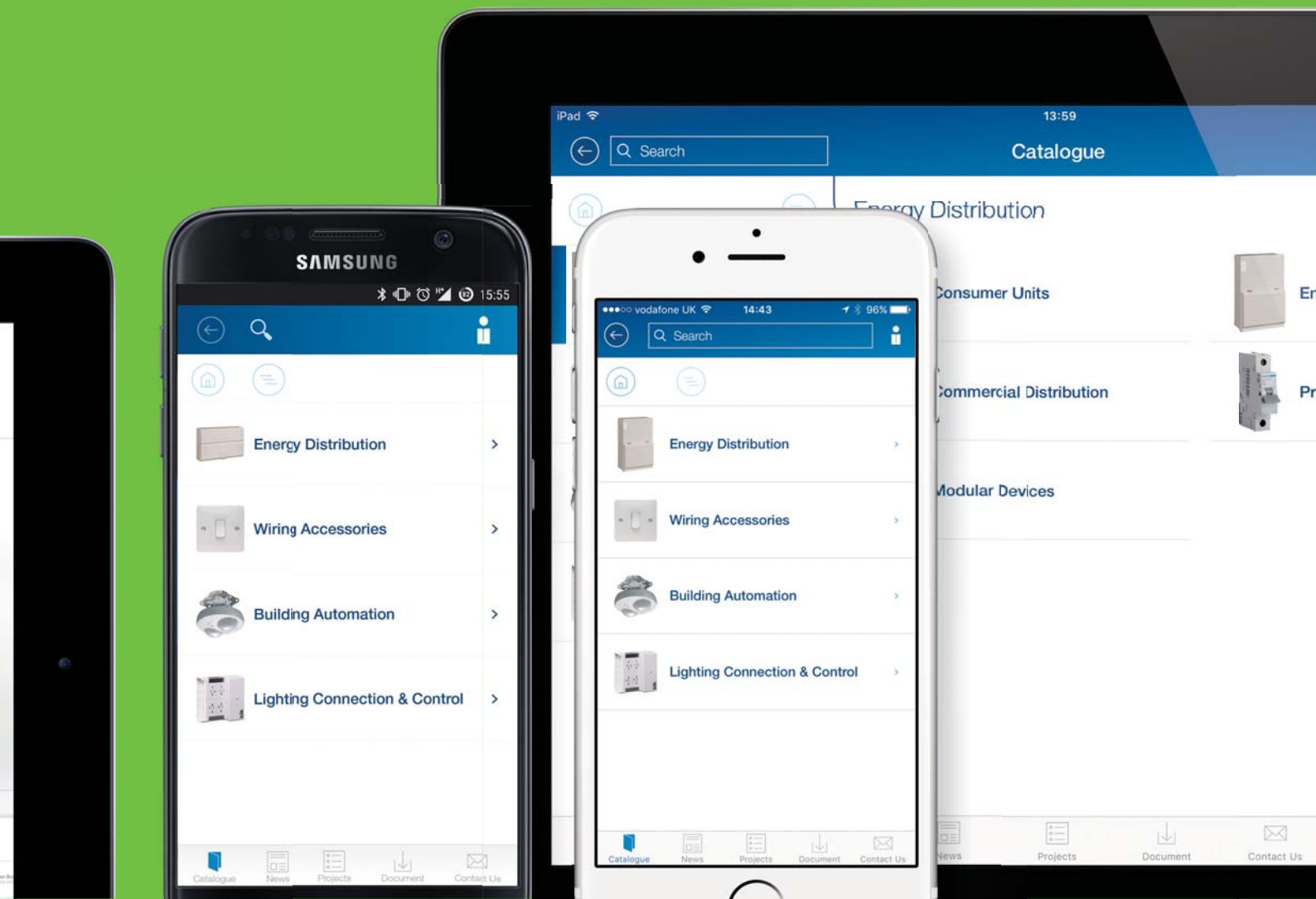

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