

A modern interior space featuring a dining area with a long, light-colored wooden table and a matching bench. Several copper-colored chairs are tucked under the table. On the table are three glass bottles and two small glasses. In the background, a bright green modular sofa is positioned against a white wall. A large floor lamp with a brass-colored shade stands to the right. The room has large windows offering a view of greenery outside. The ceiling is white with several exposed light bulbs hanging from black cords. The floor is made of dark grey tiles.

Residential Distribution

:hager



When creating our Design Range of Consumer Units, we wanted to make sure we had a full range of boards available for any situation. This has resulted in a range of styles, sizes and features which we believe will suit any installation requirement.

From 2 to 40 ways

A wide range of sizes ensures we have any board you might need.

50, 30, 10

Three different styles of board to choose.

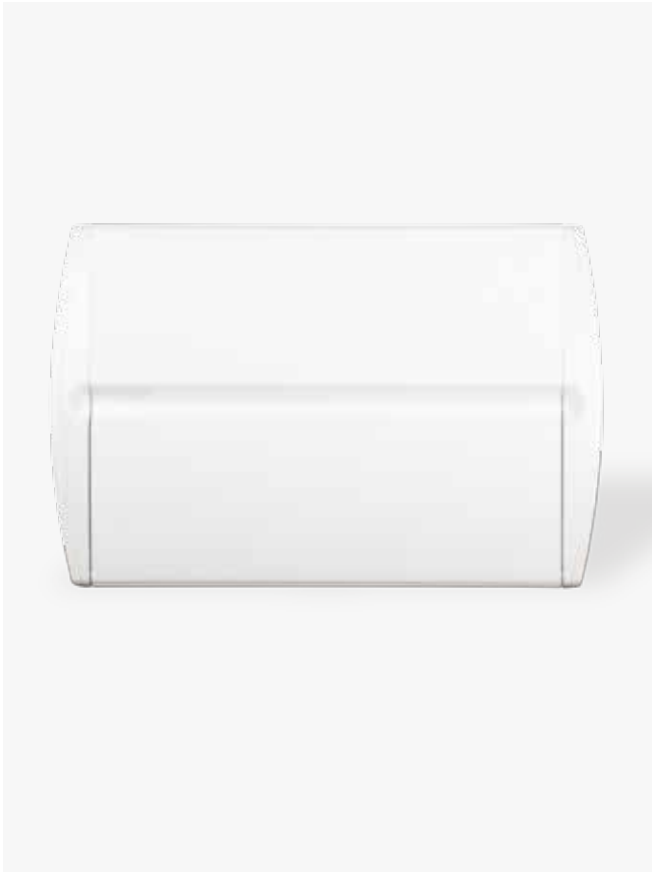
Surface, Flush & Dual Row

We have a board fit for any requirement.

141

Different consumer unit configurations available

Design 50



Design 50 focuses on clean aesthetics and a flush fit for seamless integration into any home. Design 50 comes with all the installation features you would expect from us, such as an incoming cable clamp and cable protector plate, as well as a series of colour options, finishes & sizes. There's a Design 50 for any home environment.

Available in

Switch Disconnect

Split Load

High Integrity

Design 30



Design 30 is our enhanced consumer unit, created to be more aesthetically pleasing whilst including extra features to ease installation. Design 30 comes supplied with a cable clamp installed, which allows for incoming meter tails to be safely secured, eliminating stresses within the switch terminal.

Available In

Switch Disconnect

RCCB Incomer

Time Delayed RCCB Incomer

Split Load

High Integrity

Multi Tariff

Design 10



Design 10 is our functional board created for all applications. As with all 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.

Available In

Switch Disconnector
RCCB Incomer
Time Delayed RCCB Incomer
Split Load
High Integrity
Multi Tariff

Protection Devices



Safety is of paramount importance in any installation. That's why we offer a wide range of protection devices, such as MCB's, RCBO's & Surge Protection. Our Reduced Height RCBO (6A - 32A) offers installers more cabling space within the board than with previous RCBOs. We also include an anti-counterfeiting number, which gives installers the peace of mind that they are fitting a genuine Hager product.

Devices Available

MCBs
RCBOs
Surge Protection

Design 50

Flush

Design 50 is the latest addition to our range, focusing on clean aesthetics and a flush fit for seamless integration into any home. Design 50 comes with the installation features you would expect from the rest of our Design range, such as incoming cable clamp and cable protector plate, as well as a series of colour options, finishes and sizes.



01

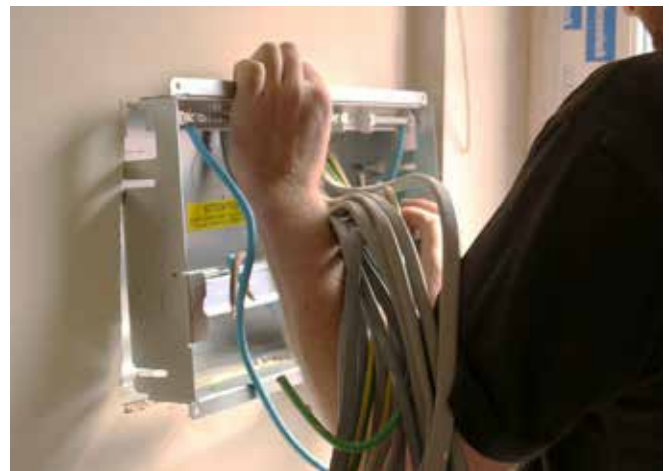
Colours & Finishes

The Design 50 comes in white as standard, or is available with a bespoke finish in any RAL colour, or a custom design, which can be vinyl wrapped onto the board to provide a truly individual unit. Design 50 is also available in one of five anodised finishes.



02 Removable Frame

The frame contains the incomer, neutral and earth terminals 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 four wing nuts, removing the need for any special tools.



03 Installation 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 uniformly and that the cover fits flat to the wall, ensuring that the finished installation looks the part.



04 Cable Clamp

A cable clamp comes as standard on all of our flush fit boards to help prevent any movement of meter tails being transmitted to the terminals of the main switch and to secure the tails in place inside the board.



05 Back Box Installation

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

Design 30

Surface & Dual Row

Design 30 was created with improved aesthetics and features for applications where the board would be installed in visible locations within a home. Dual row boards have been designed to accommodate large numbers of outgoing circuits & facilitate installation where horizontal space can be limited.



01

From 2 to 40 Ways

With the ability to accommodate from 2 to 40 outgoing ways, there is a solution for an incredible range of requirements from a high number of protected circuits, either MCB or RCBO, to the installation of surge protection or building automation.



02 Locate & Hold Cover

Multiple tabs along the top of the cover locate with slots in the base to hold the cover in place during installation, leaving both hands free to fix the cover to the base.



03 Cable Entry Protector Plates

Cable protector plates are used to ensure that cables can enter the consumer unit without damage from sharp edges created by the removal of knockouts. We provide solutions for meter tail entry, top wall entry of outgoing circuits and rear cable entries. Additional cable protector plates are available as accessories.



04 Lockable

Our health & safety lock assembly provides the ability to isolate circuits and secure the consumer unit prior to occupation of a property. This optional lock is an elegant solution that utilises the form and function of Design 30 to enable temporary locking. This is achieved with the use of the health & safety bracket (**VMHBL**) and padlock (**JK25A**). When the lock is removed, the retained cover can simply be clicked back into place restoring the board to its original state.



05 Cable Clamp

Incoming meter tails can be safely secured with a single screw, preventing stresses caused by movement of the meter tails outside the consumer unit from being transmitted to the terminals of the main switch.

421.1.201 & Part M

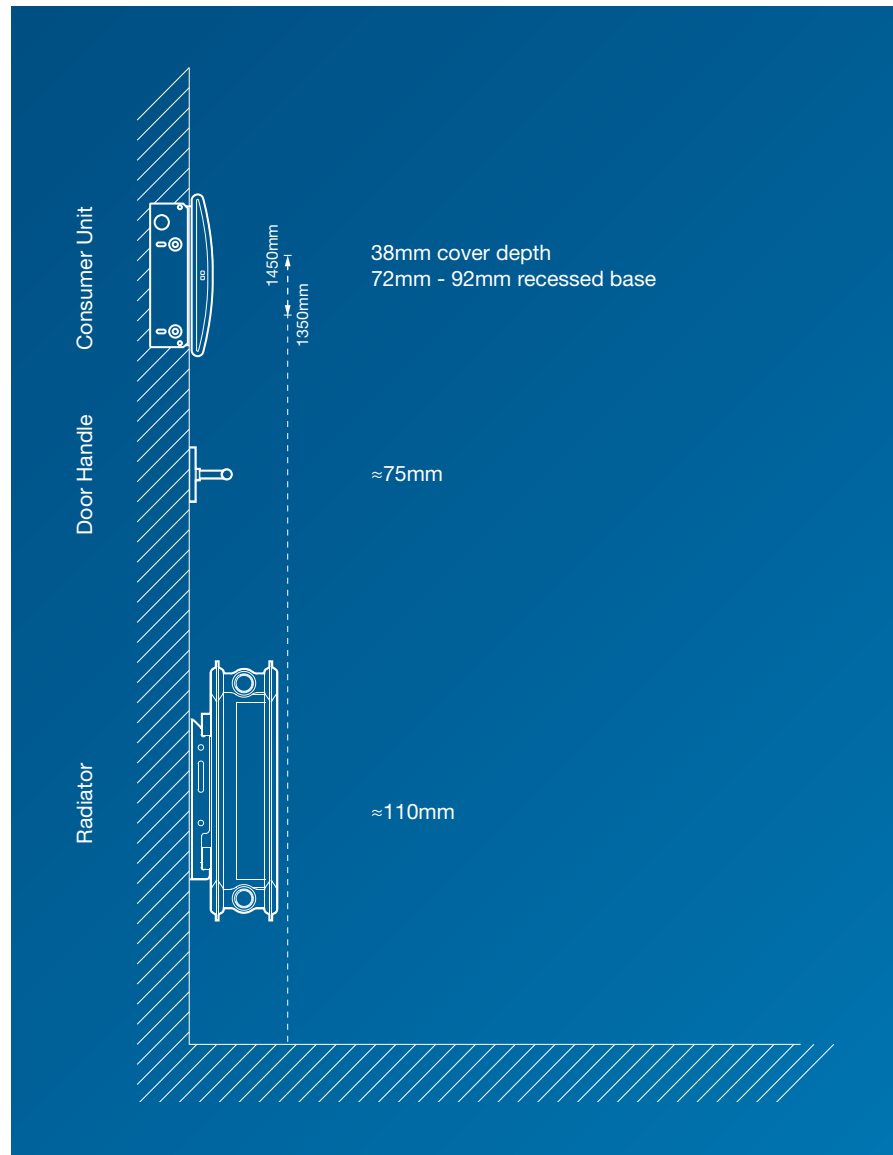
Changing Habits.

Part M at a Glance

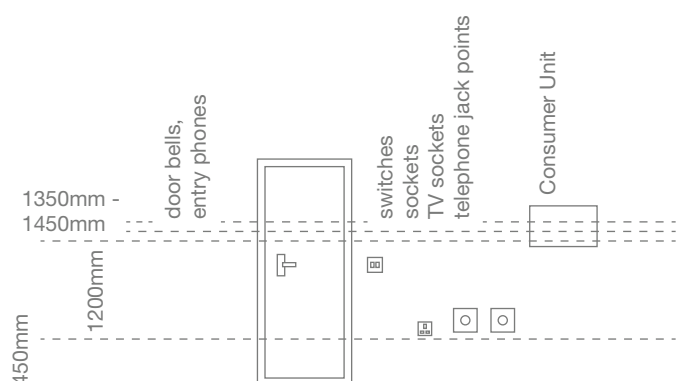
Part M has prescribed that the installation height of a consumer unit should be between 1350mm to 1450mm from the finished floor height.

This has provided obvious challenges when installing a surface mounted metal consumer unit which protrudes from the wall at shoulder height.

This can have an effect on the aesthetics of the area and introduces a risk of collision with both the fabric of the building and its occupants.



Part M





All of the metal Hager Consumer Units in the Design Range have undergone and passed extensive fire testing & enable compliance with the requirements of regulation 421.1.201.

Over the last couple of years the building industry has seen two significant changes to regulations specifically concerning consumer units and their location. These are BS 7671 regulation 421.1.201 and Part M of the Building Regulations.

The BS 7671 wiring regulations introduced regulation 421.1.201 as a result of concern over the performance of insulated consumer units in the event of an electrical fire occurring in a consumer unit as a result of a poor connection or a faulty device.

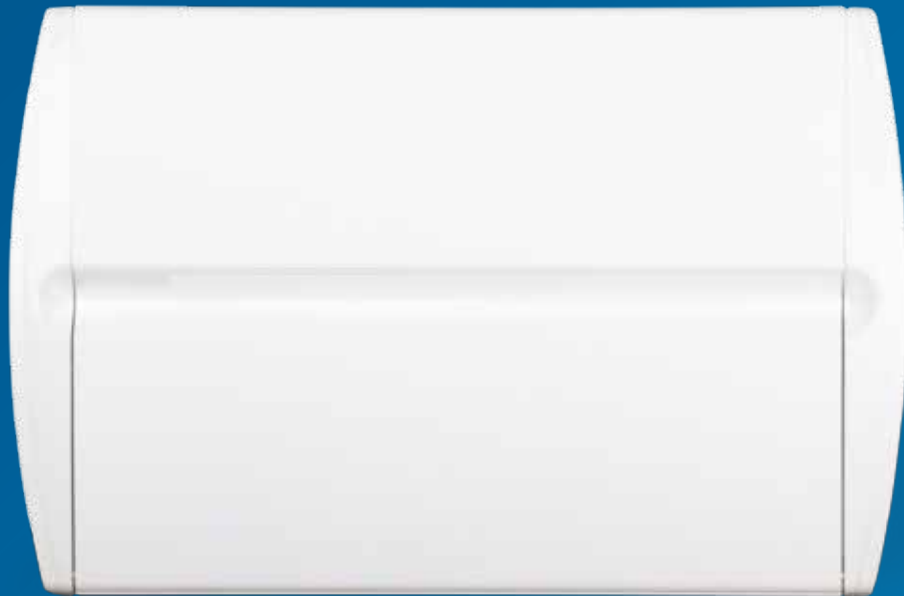
The London Fire Brigade cited a number of occasions where the consumer unit, instead of containing any fire actually became part of the fire which then spread to other parts of the dwelling.

421.1.201 states; *within domestic (household) premises, consumer units and similar switchgear assemblies shall comply with BS EN 61439-3 and shall:*

1. *Have their enclosure manufactured from non-combustible material, or*
2. *Be enclosed in a cabinet or enclosure constructed of non-combustible material and complying with regulation 132.12*

Residential Distribution

If home is where the heart is, then the consumer unit is its heartbeat. Discover our Design range of consumer units, available in functional, stylish and innovative options for any home. Whilst our protection devices, including MCB's and RCBO's, will offer protection & ease of mind.



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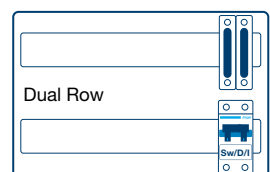
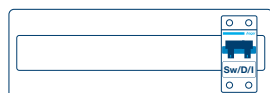
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VM202



Switch Disconnecter Incomer

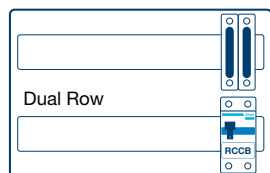
Characteristics:

- Metal switch disconnecter incomer consumer units, single row from 2 to 20 and dual row from 6+6 to 20+20 outgoing ways.
- All consumer units contain rear cable entry. Boards with knockouts also contain top & bottom knockouts and a meter tail cable entry plate (**VM04CE**) as standard - see page 28 for knockout sizes.
- Supplied with a full metal DIN rail, 63A or 100A switch disconnecter incomer and a 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 22, for dimensions see page 28, refer to board sizes below.

Description	Size	Cat ref.	Cat ref. With Knockouts
2 Way 63A Switch Disconnecter Incomer	2	VM202	VM202K
6 Way 63A Switch Disconnecter Incomer	3	VM206	VM206K
6 Way 100A Switch Disconnecter Incomer	3	VM106	VM106K
10 Way 100A Switch Disconnecter Incomer	4	VM110	VM110K
14 Way 100A Switch Disconnecter Incomer	5	VM114	VM114K
20 Way 100A Switch Disconnecter Incomer	7	VM120	VM120K
6+6 Way 100A Switch Disconnecter Incomer Dual Row	3 (2)	VM10606	VM10606K
10+10 Way 100A Switch Disconnecter Incomer Dual Row	4 (2)	VM11010	VM11010K
14+14 Way 100A Switch Disconnecter Incomer Dual Row	5 (2)	VM11414	VM11414K
20+20 Way 100A Switch Disconnecter Incomer Dual Row	7 (2)	VM12020	VM12020K



VM310H



RCCB Incomer

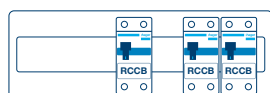
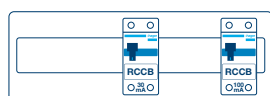
Characteristics:

- Metal RCCB incomer consumer units, single row from 2 to 14 and dual row contains 6+6 outgoing ways.
- All consumer units contain rear cable entry. Boards with knockouts also contain top & bottom knockouts and a meter tail cable entry plate (**VM04CE**) as standard - see page 28 for knockout sizes.
- Supplied with a full metal DIN rail, 40A, 63A or 100A 30mA RCCB incomer and a 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 22, for dimensions see page 28, refer to board sizes below.

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
6+6 Way 100A 30mA RCCB Incomer Dual Row	3 (2)	VM30606H	VM30606HK



VM712TG



Time Delayed RCCB Incomer

Characteristics:

- Metal RCCB incomer consumer units, single row 12 outgoing ways.
- All consumer units contain rear cable entry. Boards with knockouts also contain top & bottom knockouts and a meter tail cable entry plate (**VM04CE**) as standard - see page 28 for knockout sizes.
- Supplied with a full metal DIN rail 100A 100mA time delayed incomer, 63A 30mA RCCBs and a 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 (meter tail clamp secures meter tails to prevent accidental disconnection and contact with metal enclosure).
- Conforms to BS EN 61439-3 Including Annex ZB (16kA rating).
- For accessories see page 22, for dimensions see page 28, refer to board sizes below.

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 x 63A 30mA RCCB	6	VM766TG	VM766TGK

Split Load

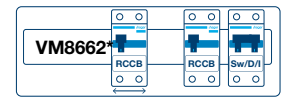
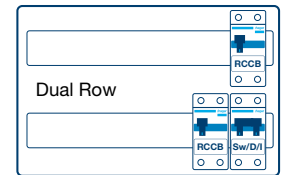
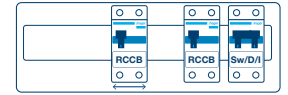
Characteristics:

- Metal split load and configurable consumer units, single row from 6 to 16 and dual row from 4+6 to 18+20 outgoing ways.
- All consumer units contain rear cable entry. Boards with knockouts also contain top & bottom knockouts and a meter tail cable entry plate (**VM04CE**) as standard - see page 28 for knockout sizes.
- Supplied with a full metal DIN rail, 100A switch disconnecter incomer, 2 RCCBs and a 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 22, for dimensions see page 28, refer to board sizes below.

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
14 Way Split Load 6+6+2 100A Switch 2x 80A 30mA RCCB plus 1x 40A 30mA RCCB	7	VM8662	VM8662K
4+6 Way 100A Switch 2x63A 30mA RCCB Dual Row	3 (2)	VM746H	VM746HK
8+10 Way 100A Switch 2x63A 30mA RCCB Dual Row	4 (2)	VM70810H	VM70810HK
12+14 Way 100A Switch 2x63A 30mA RCCB Dual Row	5 (2)	VM71214H	VM71214HK
18+20 Way 100A Switch 2x63A 30mA RCCB Dual Row	7 (2)	VM71820H	VM71820HK
4+6 Way 100A Switch 2x80A 30mA RCCB Dual Row	3 (2)	VM846H	VM846HK
8+10 Way 100A Switch 2x80A 30mA RCCB Dual Row	4 (2)	VM80810H	VM80810HK
12+14 Way 100A Switch 2x80A 30mA RCCB Dual Row	5 (2)	VM81214H	VM81214HK
18+20W 100A Switch 2x80A 30mA RCCB Dual Row	7 (2)	VM81820H	VM81820HK



VM755H



Multi Tariff

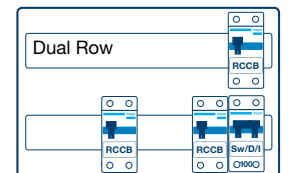
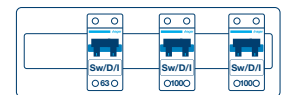
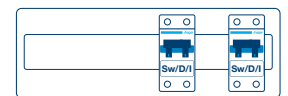
Characteristics:

- Metal switch disconnecter incomer consumer units, single row 12 or 18 and dual row 10+14 outgoing ways.
- All consumer units contain rear cable entry. Boards with knockouts also contain top & bottom knockouts and a meter tail cable entry plate (**VM04CE**) as standard - see page 28 for knockout sizes.
- Supplied with a full metal DIN rail, multiple switch disconnecter incomers and a 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 22, for dimensions see page 28, refer to board sizes below..

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
10 Way Split Load 5+5 100A Switch 2x63A RCCB 1x63A RCCB Incomer 14 Ways Dual Row	4 (2)	VM755714H	VM755714HK

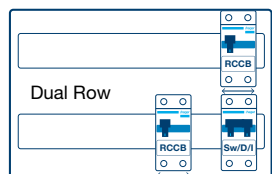
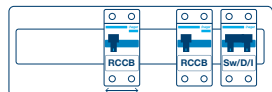


VM918C





VM716CU



High Integrity

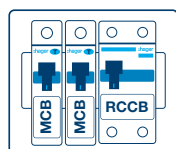
Characteristics:

- Metal split load and configurable consumer units with ability to protect selected circuits with RCBOs and the remainder of circuits split across two RCCBs. Single row from 10 to 16 and dual row from 8+10 to 18+20 outgoing ways.
- All consumer units contain rear cable entry. Boards with knockouts also contain top & bottom knockouts and a meter tail cable entry plate (**VM04CE**) as standard - see page 28 for knockout sizes.
- Supplied with a full metal DIN rail, 100A switch disconnect in-comer, 2 RCCBs and a 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 22, for dimensions see page 28, refer to board sizes below.

Description	Max Unprotected ways	Size	Cat ref.	Cat ref. With Knockouts
10 Way High Integrity Split Load Configurable 100A Switch 2x 63A 30mA RCCB	3	5	VM710CU	VM710CUK
16 Way High Integrity Split Load Configurable 100A Switch 2x 63A 30mA RCCB	6	7	VM716CU	VM716CUK
10 Way High Integrity Split Load Configurable 100A Switch 2x 80A 30mA RCCB	3	5	VM810CU	VM810CUK
16 Way High Integrity Split Load Configurable 100A Switch 2x 80A 30mA RCCB	6	7	VM816CU	VM816CUK
10 Way High Integrity 5+4+1 100A Switch 2x 63A 30mA RCCB + 6A RCBO	1	5	VM754R	VM754RK
16 Way High Integrity Split Load 7+8+1 100A Switch 2x 63A 30mA RCCB + 6A RCBO	1	7	VM778R	VM778RK
10 Way High Integrity 5+4+1 100A Switch 2x 80A 30mA RCCB + 6A RCBO	1	5	VM854R	VM854RK
16 Way High Integrity Split Load 7+8+1 100A Switch 2x 80A 30mA RCCB + 6A RCBO	1	7	VM878R	VM878RK
8+10 Way High Integrity Configurable 100A Switch 2x63A Dual Row	3	4 (2)	VM70810CU	VM70810CUK
12+14 Way High Integrity Configurable 100A Switch 2x63A Dual Row	7	5 (2)	VM71214CU	VM71214CUK
18+20 Way High Integrity Configurable 100A Switch 2x63A Dual Row	11	7 (2)	VM71820CU	VM71820CUK
8+10 Way High Integrity Configurable 100A Switch 2x80A Dual Row	3	4 (2)	VM80810CU	VM80810CUK
12+14 Way High Integrity Configurable 100A Switch 2x80A Dual Row	7	5 (2)	VM81214CU	VM81214CUK
18+20 Way High Integrity Configurable 100A Switch 2x80A Dual Row	11	7 (2)	VM81820CU	VM81820CUK



VM24H



Garage Board

Characteristics:

- Consumer unit comes complete with 40A 30mA RCCB In-comer, 32A MCB and 6A MCB, earth & neutral connections, busbar, cable protector plate, grommet strip, meter tail clamp, marking labels & instructions.
- All consumer units contain rear cable entry. Boards with knockouts also contain top & bottom knockouts and a meter tail cable entry plate (**VM04CE**) as standard - see page 28 for knockout sizes.
- For dimensions see page 28, refer to board sizes below.

Description	Size	Cat ref.	Cat ref. With Knockouts
2 Way 40A 30mA RCCB with 1x32A & 1x6A MCB	2	VM24H	VM24HK

Switch Disconnecter Incomer

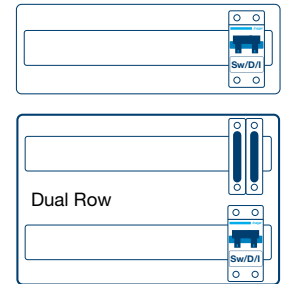
Characteristics:

- Metal switch disconnecter incomer consumer units, single row from 2 to 20 and dual row from 6+6 to 20+20 outgoing ways.
- All Design 10 consumer units contain top, bottom & rear knockouts and a meter tail cable entry plate (**VM04CE**) as standard- see page 28 for knockout sizes.
- Supplied with a full metal DIN rail, 63A or 100A switch disconnecter incomer and a 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.
- We also recommend the use of cable clamp (**VA10MT**) for use on TT systems, available as an accessory.
- Conforms to BS EN 61439-3 Including Annex ZB (16kA rating).
- For accessories see page 22, for dimensions see page 28, refer to board sizes below.

Description	Size	Cat ref.
2 Way 63A Switch Disconnecter Incomer	2	VML202
6 Way 63A Switch Disconnecter Incomer	3	VML206
6 Way 100A Switch Disconnecter Incomer	3	VML106
10 Way 100A Switch Disconnecter Incomer	4	VML110
14 Way 100A Switch Disconnecter Incomer	5	VML114
20 Way 100A Switch Disconnecter Incomer	7	VML120
6+6 Way 100A Switch Disconnecter Dual Row	3 (2)	VML10606
10+10 Way 100A Switch Disconnecter Dual Row	4 (2)	VML11010
14+14 Way 100A Switch Disconnecter Dual Row	5 (2)	VML11414
20+20 Way 100A Switch Disconnecter Dual Row	7 (2)	VML12020



VML206



RCCB Incomer

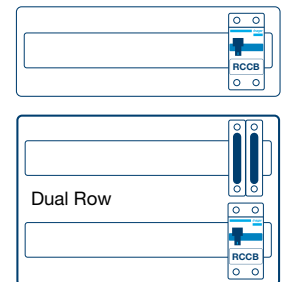
Characteristics:

- Metal RCCB incomer consumer units, single row from 2 to 14 and dual row 6+6 outgoing ways.
- All Design 10 consumer units contain top, bottom & rear knockouts and a meter tail cable entry plate (**VM04CE**) as standard- see page 28 for knockout sizes.
- Supplied with a full metal DIN rail, 40A, 63A or 100A 30mA RCCB incomer and a 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 22, for dimensions see page 28, refer to board sizes below.

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
6+6 Way 100A 30mA RCCB Incomer Dual Row	3 (2)	VML30606H



VML310H



Time Delayed RCCB Incomer

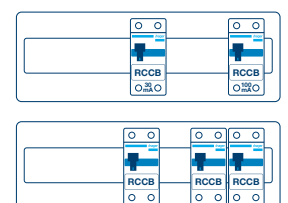
Characteristics:

- Metal RCCB incomer consumer units, single row 12 outgoing ways.
- All Design 10 consumer units contain top, bottom & rear knockouts and a meter tail cable entry plate (**VM04CE**) as standard- see page 28 for knockout sizes.
- Supplied with a full metal DIN rail 100A 100mA time delayed incomer and 63A 30mA RCCB incomers and a full complement of earth and neutral terminals along with marking labels, busbar, meter tail clamp and instructions.
- Recommended for use with TT systems (meter tail clamp secures meter tails to prevent accidental disconnection and contact with metal enclosure).
- Conforms to BS EN 61439-3 Including Annex ZB (16kA rating).
- For accessories see page 22, for dimensions see page 28, refer to board sizes below.

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

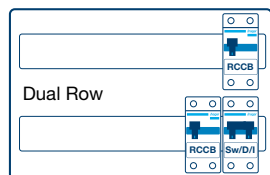
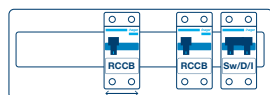


VML712TG





VM716C



Split Load

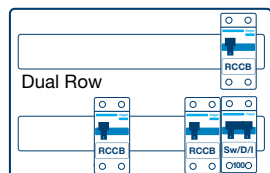
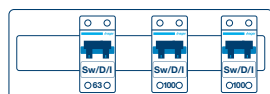
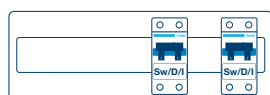
Characteristics:

- Metal split load and configurable consumer units, single row from 6 to 16 and dual row from 4+6 to 18+20 outgoing ways.
- All Design 10 consumer units contain top, bottom & rear knockouts and a meter tail cable entry plate (**VM04CE**) as standard- see page 28 for knockout sizes.
- Supplied with a full metal DIN rail, 100A switch disconnector incomer and 2 RCCBs and a 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 22, for dimensions see page 28.

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
14 Way Split Load 6+6+2 100A Switch 2x80A 30mA RCCB + 40A 30mA RCCB	7	VML8662
4+6 Way 100A Switch 2x63A 30mA RCCB Dual Row	3 (2)	VML746H
8+10W 100A Switch 2x63A 30mA RCCB Dual Row	4 (2)	VML70810H
12+14W 100A Switch 2x63A 30mA RCCB Dual Row	5 (2)	VML71214H
18+20W 100A Switch 2x63A 30mA RCCB Dual Row	7 (2)	VML71820H
4+6 Way 100A Switch 2x80A 30mA RCCB Dual Row	3 (2)	VML846H
8+10W 100A Switch 2x80A 30mA RCCB Dual Row	4 (2)	VML80810H
12+14W 100A Switch 2x80A 30mA RCCB Dual Row	5 (2)	VML81214H
18+20W 100A Switch 2x80A 30mA RCCB Dual Row	7 (2)	VML81820H



VML918C



Multi Tariff

Characteristics:

- Metal switch disconnector incomer consumer units, single row 12 or 18 and dual row 10+14 outgoing ways.
- All Design 10 consumer units contain top, bottom & rear knockouts and a meter tail cable entry plate (**VM04CE**) as standard- see page 28 for knockout sizes.
- Supplied with a full metal DIN rail, multiple switch disconnector incomers and a 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 22, for dimensions see page 28.

Description	Size	Cat ref.
18 Way Twin Tariff Configurable 2x100A Switch	7	VML918C
12 Way Multi Tariff 6+5+1 2x100A 1x63A Switch	6	VML9651
10 Way Split Load 5+5 100A Switch 2x63A RCCB 1x63A RCCB Incomer 14 Ways Dual Row	4 (2)	VML755714H

High Integrity

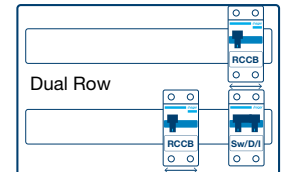
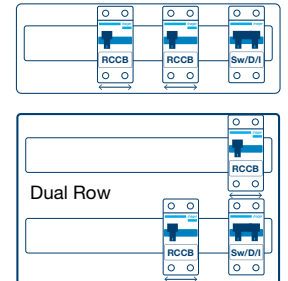
Characteristics:

- Metal split load and configurable consumer units with the ability to protect selected circuits with RCCBs and the remainder of circuits split across two RCCBs. Single row from 10 to 16 and dual row from 8+10 to 18+20 outgoing ways.
- All Design 10 consumer units contain top, bottom & rear knockouts and a meter tail cable entry plate (**VM04CE**) as standard- see page 28 for knockout sizes.
- Supplied with a full metal DIN rail, 100A switch disconnecter incomer, 2 RCCBs and a 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 22, for dimensions see page 28.

Description	Max Unprotected Ways	Size	Cat ref.
10 Way High Integrity Split Load Configurable 100A Switch 2x63A 30mA RCCB	3	5	VML710CU
12 Way High Integrity Split Load Configurable 100A Switch 2x63A 30mA RCCB	3	6	VML712CU
16 Way High Integrity Split Load Configurable 100A Switch 2x63A 30mA RCCB	6	7	VML716CU
10 Way High Integrity Split Load Configurable 100A Switch 2x80A 30mA RCCB	3	5	VML810CU
16 Way High Integrity Split Load Configurable 100A Switch 2x80A 30mA RCCB	6	7	VML816CU
10 Way High Integrity 5+4+1 100A Switch 2x63A 30mA RCCB + 6A RCBO	1	5	VML754R
16 Way High Integrity 7+8+1 100A Switch 2x63A 30mA RCCB + 6A RCBO	1	7	VML778R
10 Way High Integrity 5+4+1 100A Switch 2x80A 30mA RCCB + 6A RCBO	1	5	VML854R
16 Way High Integrity 7+8+1 100A Switch 2x80A 30mA RCCB + 6A RCBO	1	7	VML878R
8+10 Way High Integrity Configurable 100A Switch 2x63A Dual Row	3	4 (2)	VML70810CU
12+14 Way High Integrity Configurable 100A Switch 2x63A Dual Row	7	5 (2)	VML71214CU
18+20 Way High Integrity Configurable 100A Switch 2x63A Dual Row	11	7 (2)	VML71820CU
8+10 Way High Integrity Configurable 100A Switch 2x80A Dual Row	3	4 (2)	VML80810CU
12+14 Way High Integrity Configurable 100A Switch 2x80A Dual Row	7	5 (2)	VML81214CU
18+20 Way High Integrity Configurable 100A Switch 2x80A Dual Row	11	7 (2)	VML81820CU



VML878R



Garage Boards

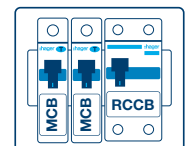
Characteristics:

- Consumer unit comes complete with 40A 30mA RCCB Incomer, 32A MCB and 6A MCB, earth & neutral connections, busbar, grommet strip, marking labels & Instructions.
- All Design 10 consumer units contain top, bottom & rear knockouts and a meter tail cable entry plate (**VM04CE**) as standard- see page 28 for knockout sizes.
- Cable protector plate for rear knockouts is available as an accessory. (**VM02CE**)
- For dimensions see page 28.

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



VML24H





VSR114



Switch Disconnecter Incomer

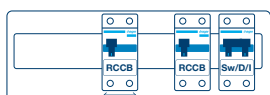
Characteristics:

- Metal switch disconnecter incomer consumer units, single row from 10 to 20 outgoing ways.
- All consumer units contain rear cable entry, along with top & bottom knockouts.
- Supplied with a full metal DIN rail, 100A switch disconnecter incomer and a 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).
- Adjustable depth in wall 72mm-92mm.
- For dimensions see page 28.

Description	Size	Cat ref.
10 Way 100A Switch Disconnecter Incomer	4	VSR110
14 Way 100A Switch Disconnecter Incomer	5	VSR114
20 Way 100A Switch Disconnecter Incomer	7	VSR120



VSR710C



Split Load

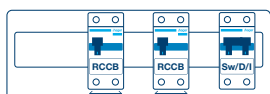
Characteristics:

- Metal split load and configurable consumer units, single row from 10 to 16 outgoing ways.
- All consumer units contain rear cable entry, along with top & bottom knockouts.
- Supplied with a full metal DIN rail, 100A switch disconnecter incomer and 2 RCCBs and a 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).
- Adjustable depth in wall 72mm-92mm.
- For dimensions see page 28.

Description	Size	Cat ref.
10 Way Configurable 100A Switch 2x 63A 30mA RCCB	5	VSR710C
12 Way Configurable 100A Switch 2x 63A 30mA RCCB	6	VSR712C
16 Way Configurable 100A Switch 2x 63A 30mA RCCB	7	VSR716C
10 Way Configurable 100A Switch 2x 80A 30mA RCCB	5	VSR810C
12 Way Configurable 100A Switch 2x 80A 30mA RCCB	6	VSR812C
16 Way Configurable 100A Switch 2x 80A 30mA RCCB	7	VSR816C



VSR710C



High Integrity

Characteristics:

- Metal split load and configurable consumer units with the ability to protect selected circuits with RCBOs and the remainder of circuits split across two RCCBs. Single row from 10 to 16 outgoing ways.
- All consumer units contain rear cable entry, along with top & bottom knockouts.
- Supplied with a full metal DIN rail, 100A switch disconnecter incomer and 2 RCCBs and a 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).
- Adjustable depth in wall 72mm-92mm.
- For dimensions see page 28.

Description	Max Unprotected Ways	Size	Cat ref.
10 Way High Integrity Split Load Configurable 100A Switch 2x 63A 30mA RCCB	3	5	VSR710CU
12 Way High Integrity Split Load Configurable 100A Switch 2x 63A 30mA RCCB	3	6	VSR712CU
16 Way High Integrity Split Load Configurable 100A Switch 2x 63A 30mA RCCB	6	7	VSR716CU
10 Way High Integrity Split Load Configurable 100A Switch 2x 80A 30mA RCCB	3	5	VSR810CU
12 Way High Integrity Split Load Configurable 100A Switch 2x 80A 30mA RCCB	3	6	VSR812CU
16 Way High Integrity Split Load Configurable 100A Switch 2x 80A 30mA RCCB	6	7	VSR816CU

Switch Disconnector Incomer

Characteristics:

- Metal switch disconnector incomer consumer units, single row from 10 to 20 outgoing ways.
- All consumer units contain rear cable entry, along with top & bottom knockouts.
- Supplied with a full metal DIN rail, 100A switch disconnector incomer and a 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).
- Adjustable depth in wall 72mm-92mm.
- For dimensions see page 29.

Description	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



VMLF110



Split Load

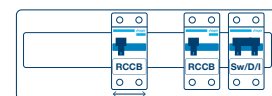
Characteristics:

- Metal split load and configurable consumer units, single row from 10 to 16 outgoing ways.
- All consumer units contain rear cable entry, along with top & bottom knockouts.
- Supplied with a full metal DIN rail, 100A switch disconnector incomer and 2 RCCBs and a 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).
- Adjustable depth in wall 72mm-92mm.
- For dimensions see page 29.

Description	Size	Cat ref.
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



VMLF710C



High Integrity

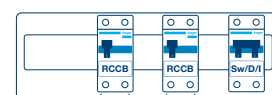
Characteristics:

- Metal split load and configurable consumer units with ability to protect selected circuits with RCBOs and the remainder of circuits split across two RCCBs. Single row from 10 to 16 outgoing ways.
- All consumer units contain rear cable entry, along with top & bottom knockouts.
- Supplied with a full metal DIN rail, 100A switch disconnector incomer and 2 RCCBs and a 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).
- Adjustable depth in wall 72mm-92mm.
- For dimensions see page 29.

Description	Max Unprotected Ways	Size	Cat ref.
10 Way Flush High Integrity 100A Switch 2x63A 30mA RCCB	3	5	VMLF710CU
12 Way Flush High Integrity 100A Switch 2x63A 30mA RCCB	3	6	VMLF712CU
16 Way Flush High Integrity 100A Switch 2x63A 30mA RCCB	6	7	VMLF716CU
10 Way Flush High Integrity 100A Switch 2x80A 30mA RCCB	3	5	VMLF810CU
12 Way Flush High Integrity 100A Switch 2x80A 30mA RCCB	3	6	VMLF812CU
16 Way Flush High Integrity 100A Switch 2x80A 30mA RCCB	6	7	VMLF816CU



VMLF710CU





VM02CE



VM03CB

VM03CE



VM04CB

VM04CE

Cable Protector Plate

Characteristics:

- Provides protection against sharp edges for cables entering a consumer unit.
- **VM01CE**: Simply insert protector plate and bend over tabs inside board.
- **VM02CE**: Designed to fit into the aperture left by the removal of a rear knockout on the Design 10, Design 30 & Design 50 Consumer Unit. (Included as standard with Design 30 & 50 consumer units). Break away sections as required and simply push into place.
- **VM03/04**: Simply clip into place to allow cable entry or blanking of removed knockouts.

Description	Quantity	Cat ref.
Cable Protector Plate (Metal)	1	VM01CE
Cable Protector Plate (Insulated)	5	VM02CE
Top Wall Cable Protector Plate (30mm x 40mm)	10	VM03CE
Top Wall Cable Protector Plate (30mm x 40mm) Closed	10	VM03CB
Meter Tail Entry Cable Protector Plate (25mm x 30mm)	10	VM04CE
Meter Tail Entry Cable Protector Plate (25mm x 30mm) Closed	10	VM04CB



VM10MT

Cable Clamp

Characteristics:

- 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 Design 30 & 50 consumer units)

Description	Cat ref.
Cable Clamp for Meter Tails	VA10MT



VMLOCK

Locks

Characteristics:

- **VMLOCK** allows door to be lockable. Simply remove the centre of the lock surround and the knockout behind, and fit 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.
Design 30 Door Locking Kit	VMLOCK
Health & Safety Padlock Bracket	VMHBL
Padlock	JK25A



VMGROM

Grommets & Grommet Strip

Characteristics:

- Grommet 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



VM01SP

Stand-off Plate

Characteristics:

- The rear stand off plate provides 12mm of clearance at the rear of the consumer unit to allow surface mounted cables to enter the board from the rear avoiding any potential IP issues with the top of the board. Supplied with two cable protector plates as standard.

Description	Cat ref.
Rear stand off plates VM & VML VM01SP	VM01SP

Design 50 Accessories

Description	Cat ref.
Design 50 Safety Lock (Pack of 6, Supplied without Padlock)	VSRHBL
Padlock (Accessory for Design 50 Safety Lock, Sold Individually)	JK25A
Design 50 Door Locking Device	VSRLOCK



VSRHBL



VSRLOCK

Other Accessores

Description	Cat ref.
1 Module Busbar Blank	JK01B
Neutral Link	VAN00
Dual Tariff Link Kit	VAK0D
Split Load Link Kit	VAK0S
Triple Tariff Link Kit	VAK0T
8 Module Busbar	VAB08
12 Module Busbar	VAB12
16 Module Busbar	VAB16
21 Module Busbar	VAB21
Spare Terminal Bar Support Clips (Quantity - 5)	VAT00
Terminal Bar 2 Way with Two Support Clips	VAT02
Terminal Bar 3 Way with Two Support Clips	VAT03
Terminal Bar 4 Way with Two Support Clips	VAT04
Terminal Bar 5 Way with Two Support Clips	VAT05
Terminal Bar 6 Way with Two Support Clips	VAT06
Terminal Bar 7 Way with Two Support Clips	VAT07
Terminal Bar 8 Way with Two Support Clips	VAT08
Terminal Bar 9 Way with Two Support Clips	VAT09
Terminal Bar 10 Way with Two Support Clips	VAT10
Terminal Bar 11 Way with Two Support Clips	VAT11
Terminal Bar 12 Way with Two Support Clips	VAT12
Terminal Bar 13 Way with Two Support Clips	VAT13
Terminal Bar 14 Way with Two Support Clips	VAT14
Terminal Bar 15 Way with Two Support Clips	VAT15
Terminal Bar 16 Way with Two Support Clips	VAT16
Terminal Bar 17 Way with Two Support Clips	VAT17
Terminal Bar 18 Way with Two Support Clips	VAT18
Terminal Bar 19 Way with Two Support Clips	VAT19
Terminal Bar 20 Way with Two Support Clips	VAT20
Terminal Bar 21 Way with Two Support Clips	VAT21
Terminal Bar 22 Way with Two Support Clips	VAT22
Terminal Bar 23 Way with Two Support Clips	VAT23
Terminal Bar 24 Way with Two Support Clips	VAT24
Label Pack	VAP00



JK01B



VAB08



VAN00



MTN106

MCBs - Single Pole, B Curve, 6kA

Characteristics:

- Protection and control of circuits against overloads and short circuits for use in domestic installations.
- Complies with BS EN 60898.
- Voltage rating: 230V
- Current rating: 6 - 63A
- Connection capacity: Rigid = 25mm², Flexible = 16mm²
- Calibration temperature: 30°C

Description	Width (1 Mod = 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



ADA332G

Reduced Height RCBO - Single Pole, B Curve, 6kA, 30mA, Type A

Characteristics

- Protection devices which combine the overcurrent functions of an MCB with the earth fault functions of an RCCB.
- Complies with BS EN 61009-1, BS IEC 1009-2-2
- Single module width
- Sensitivity: 30mA
- Current rating: 6 - 32A
- Connection capacity: Rigid = 16mm², Flexible = 10mm²
- Flying neutral lead: 200mm
- Single pole & solid neutral
- Type A (Pulsating DC Sensitive)
- Operational Voltage: 127-230V AC

Description	Cat ref.
6A	ADA306G
10A	ADA310G
16A	ADA316G
20A	ADA320G
25A	ADA325G
32A	ADA332G

RCBOs - Single Pole

Characteristics:

- Protection devices which combine the overcurrent functions of an MCB with the earth fault functions of an RCCB.
- Complies with BS EN 61009, IEC 61009-2-2
- Sensitivity: 30mA
- Current rating: 6 - 45A
- Connection capacity: Rigid = 16mm², Flexible = 10mm²
- Flying neutral lead: 200mm
- Single pole & solid neutral
- Type AC (AC Sensitive), Type A (AC Pulsating & DC Sensitive)
- Operational Voltage: 127-230V AC
- Electrical operations: 1000

Description	Width (1 Mod = 17.5mm)	Cat ref.
RCBO - Single Pole, B Curve, Type AC, 30mA, 6kA		
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
RCBO - Single Pole, C Curve, Type A, 30mA, 10kA		
6A	1 Mod	ADA156U
10A	1 Mod	ADA160U
16A	1 Mod	ADA166U
20A	1 Mod	ADA170U
32A	1 Mod	ADA182U



ADN120



ADA156U

Locking Kit

Characteristics:

- Allows MCBs, RCCBs and RCBOs 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

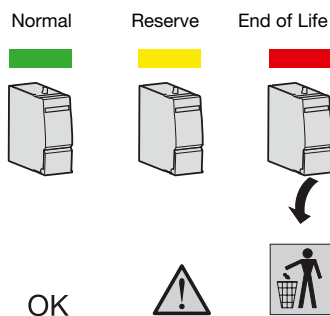


MZN175



Reserve Indicator Light

Neutral cartridges cannot be put into spares reserved for phase cartridges and visa versa.



Surge Protection

Characteristics

- SPD's protect electrical and electronic equipment against transients, originating from lightning, switching of transformers, lighting and motors. These transient voltages can cause premature ageing of equipment, downtime, or complete destruction of electronic components and materials. SPDs are strongly recommended on installations that are exposed to transient voltages, to protect sensitive and expensive electrical equipment such as TV, video, Hi-Fi, PC, alarm etc.
- The range of SPDs is separated into 3 types of protection:
 - 1. Main protection - class 1** - SPDs with higher discharge current (I_{max} 10/350), to evacuate as much of the transient over-voltages associated with lightning strikes
 - 2. Main protection - class 2** - With a discharge current (I_{max} 8/20), to evacuate as much of the transient over-voltage to earth as possible protection level ($U_p \leq 1000V$).
 - 3. Main protection - class 3** - To cut-down the transient surge as low as possible to protect very sensitive equipment.

Technical Data

- Complies with IEC61643-1.
- D Versions: end of life indicator, auxiliary contact for remote indication.
- R Versions: reserve status indicator, signalling.
- Connection Capacity (terminal blocks L, N & E): Rigid conductor: 10mm², Flexible conductor: 6mm².
- 230V a.c. 1A. 12V...10mA.

Installation and Connection

- The main protection SPDs are installed directly after the main incoming switch or RCCB
- Connected in parallel to the equipment to be protected.
- Protection is assured in both common and differential modes.

Replacement Cartridges

- Allow simple replacement without the need to cut-off the power supply.
- Cartridges are available for all discharge currents, (40kA and 15kA) with and without condition indication.
- A keying system exists to prevent a line cartridge being interchanged by mistake with a neutral one and visa versa neutral cartridges have a discharge current of 65kA.
- For technical details see page 32.

Surge Protection Devices

Class 1 + 2 (Class 1 + 2 + 3 if less than 5m) (with lifetime indicator)

I_n kA L-N	I_n kA N-PE	I_{imp} L-N	I_{imp} N-PE	U_p kV	Width (mm)	Cat ref.	Cat ref. with remote contact
-	-	12.5	25	≤ 1.5	35	SPA201	-

Class 2 (with lifetime indicator)

5	15	-	-	≤ 1.2	17.5	SPN115D	SPN115R
5	15	-	-	≤ 1.2	35	SPN215D	SPN215R
15	40	-	-	≤ 1.2	35	SPN240D	SPN240R

Class 3 (Fine Protection) (with lifetime indicator)

3	3	-	-	≤ 1.5	17.5	SPN203N	-
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PV Applications (DC side) (with lifetime indicator)

12.5	25			≤ 4	52.5	SPV325	-
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SPN240R

Replacement Cartridges

Description	Cat ref.
Phase replacement for SPN215D	SPN015D
Phase replacement for SPN215R	SPN015R
Phase replacement for SPN240D	SPN040D
Phase replacement for SPN240R	SPN040R
Neutral replacement for SPN215D, SPN215R, SPN240D, SPN240R	SPN040N
Neutral replacement for SPN203N	SPN023N

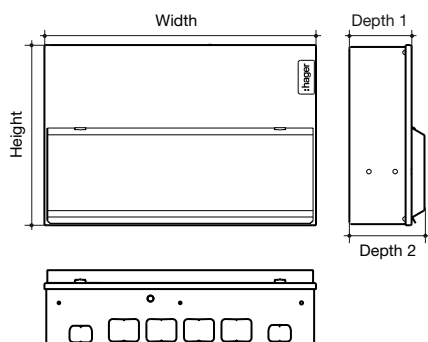


SPN040D

Consumer Unit Kit Type 2 SPD with SPN215D (with lifetime indicator)

- Consists of: Neutral terminal bar, 3x 20mm neutral link bar 370mm, 300mm & 200mm lengths, 4mm² neutral, live & earth cables, 2 connector busbar, 4 way terminal bar, terminal bar clip, 1x Double Pole SPD's, 32A MCB

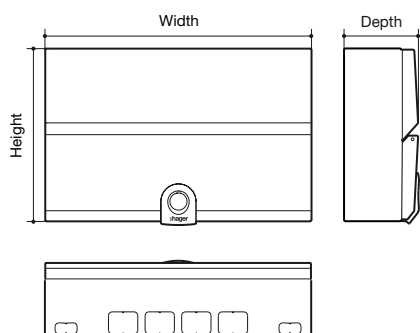
Poles	I_n kA L-N	I_n kA N-PE	U_p kV	Width (mm)	Cat ref.
2	5	15	≤ 1.2	35	VA02SPD



Design 10 Dimensions (mm)

	Enclosure Size					
	2	3	4	5	6	7
Height	246	246	246	246	246	246
Width	155	227	299	370	406	478
Depth 1	83	83	83	83	83	83
Depth 2	100	100	100	100	100	100

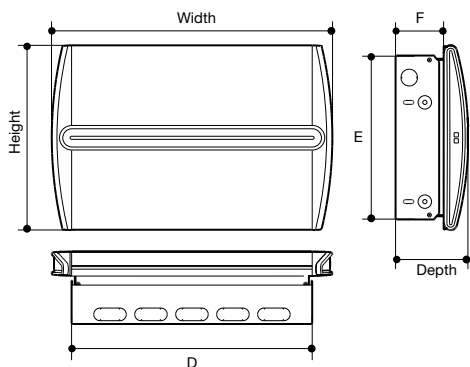
	Number of Knockouts					
<input type="checkbox"/> Top Face 30 x 25 (mm)	2	2	2	2	2	2
<input type="checkbox"/> Top Face 40 x 30 (mm)	0	2	4	4	6	6
<input type="checkbox"/> Back 100 x 50 (mm)	1	1	1	3	3	3
<input type="checkbox"/> Bottom Face 30 x 25 (mm)	2	3	4	4	5	5



Design 30 Dimensions (mm)

	Enclosure Size					
	2	3	4	5	6	7
Height	240	240	240	240	240	240
Width	149	221	293	364	400	472
Depth	102.5	102.5	102.5	102.5	102.5	102.5

	Number of Knockouts					
<input type="checkbox"/> Top Face 30 x 25 (mm)	2	2	2	2	2	2
<input type="checkbox"/> Top Face 40 x 30 (mm)	0	2	4	4	6	6
<input type="checkbox"/> Back 100 x 50 (mm)	1	1	1	3	3	3
<input type="checkbox"/> Bottom Face 30 x 25 (mm)	2	3	4	4	5	5



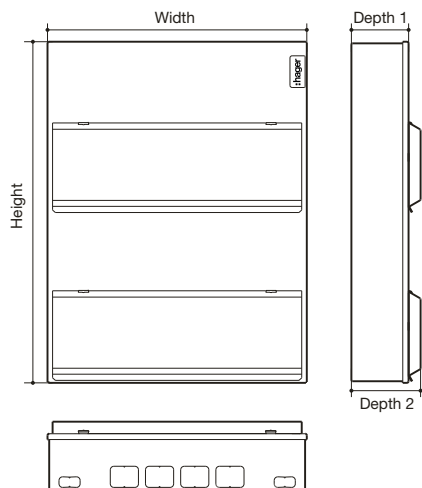
Design 50 Dimensions (mm)

	Enclosure Size			
	4	5	6	7
Height	284	284	284	284
Width	359	431	467	539
Depth	105	105	105	105
D	298	370	406	478
E	252	252	252	252
F	72	72	72	72

	Number of Knockouts			
<input type="checkbox"/> Top Face 50 x 20 (mm)	4	5	6	7
<input type="checkbox"/> Bottom Face 50 x 20 (mm)	4	5	6	7
<input type="checkbox"/> Back 100 x 50 (mm)	2	2	2	3
<input type="checkbox"/> Left Face 20.8 (mm)	1	1	1	1

Adjustable Depth Base

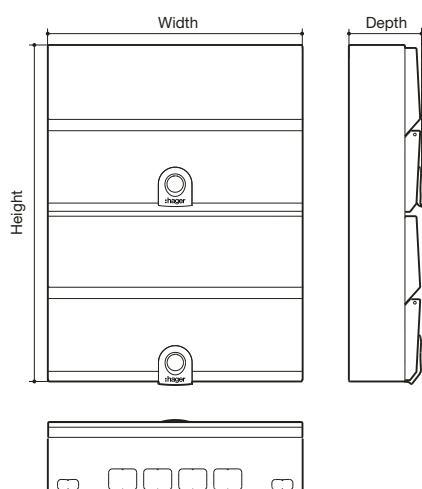
The base assembly is adjustable from 72mm to 92mm. At 72mm this allows for a 60mm studwork and 12mm of plasterboard.



Dual Row Design 10 Dimensions (mm)

	Enclosure Size				
	3 (2)	4 (2)	5 (2)	6 (2)	7 (2)
Height	486	486	486	486	486
Width	227	299	370	406	478
Depth 1	83	83	83	83	83
Depth 2	100	100	100	100	100

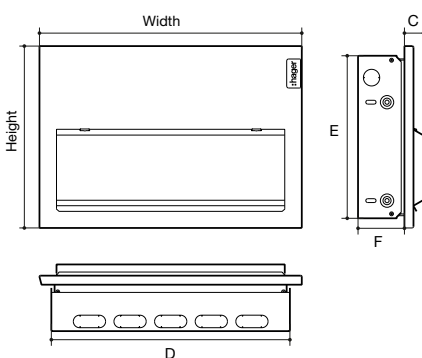
	Number of Knockouts				
<input type="checkbox"/> Top Face 30 x 25 (mm)	2	2	2	2	2
<input type="checkbox"/> Top Face 40 x 30 (mm)	2	4	4	6	6
<input type="checkbox"/> Back 100 x 50 (mm)	2	2	6	6	6
<input type="checkbox"/> Bottom Face 30 x 25 (mm)	3	4	4	5	5



Dual Row Design 30 Dimensions (mm)

	Enclosure Size				
	3 (2)	4 (2)	5 (2)	6 (2)	7 (2)
Height	480	480	480	480	480
Width	221	293	364	400	472
Depth	102.5	102.5	102.5	102.5	102.5

	Number of Knockouts				
<input type="checkbox"/> Top Face 30 x 25 (mm)	2	2	2	2	2
<input type="checkbox"/> Top Face 40 x 30 (mm)	2	4	4	6	6
<input type="checkbox"/> Back 100 x 50 (mm)	2	2	6	6	6
<input type="checkbox"/> Bottom Face 30 x 25 (mm)	3	4	4	5	5





Flush Design 10 Dimensions (mm)

	Enclosure Size			
	4	5	6	7
Height	282	282	282	282
Width	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			
<input type="checkbox"/> Top Face 50 x 20 (mm)	4	5	6	7
<input type="checkbox"/> Bottom Face 50 x 20 (mm)	4	5	6	7
<input type="checkbox"/> Back 100 x 50 (mm)	2	2	2	3
<input type="checkbox"/> Left Face 20.8 (mm)	1	1	1	1

Torque Settings

			Cables >1.5mm ² Tightening torque (N.m)		Cables ≤1.5mm ² Tightening torque (N.m)		Cable Stripping (mm)
	Pz No.	(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

MTN Electrical Characteristics.

Poles	Rated Operational Voltage U _e (V)	Nominal Current	Breaking Capacity (I _{cn}) to BS EN 60898	Breaking Capacity (I _{cs}) to BS EN 60898	Rated Insulation Voltage U _i (V)	Rated Impulse Voltage U _{imp} (kV)	Electrical Endurance	Connection of Auxiliaries
Single Pole	230	6 - 63A	6kA	6kA	500V	4kV	10,000 cycles	No

Power Loss

The power loss of MCB's is closely controlled by the standards and is calculated on the basis of the voltage drop across the main terminals measured at rated current. The power loss of hager circuit breakers is very much lower than that required by the British Standard, so in consequences run cooler and are less affected when mounted together.

The table below gives the watts loss per pole at rated current.

MCB Rated current (A)	0.5	1	2	3	4	6	10	13	16	20	25	32	40	50	63
Watts loss per pole	1.2	1.3	1.5	2.0	1.8	1.4	1.9	2.1	2.5	2.8	3.2	3.8	4.0	4.5	5.1

Connection

The circuit breaker can have the line/load connected to either the top or bottom terminals

Temperature Derating

MCBs are designed and calibrated to carry their rated current and to operate within their designated thermal time/current zone at 30°C. Testing is carried out with the breaker mounted singly in a vertical plane in a controlled environment. Therefore if the circuit breaker is required to operate in conditions which differ from the reference conditions, certain factors have to be applied to the standard data.

I _n (A)	-25°C	-20°C	-15°C	-10°C	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
6	8.64	8.4	8.16	7.92	7.68	7.44	7.2	6.96	6.72	6.48	6.24	6	5.76	5.52	5.28	5.04	4.8	4.56
10	14.4	14	13.6	13.2	12.8	12.4	12	11.6	11.2	10.8	10.4	10	9.6	9.2	8.8	8.4	8	7.6
16	23	22.4	21.8	21.1	20.5	19.8	19.2	18.6	17.9	17.3	16.6	16	15.4	14.7	14.1	13.4	12.8	12.2
20	28.8	28	27.2	26.4	25.6	24.8	24	23.2	22.4	21.6	20.8	20	19.2	18.4	17.6	16.8	16	15.2
25	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19
32	46.1	44.8	43.5	42.2	41	39.7	38.4	37.1	35.8	34.6	33.3	32	30.7	29.4	28.2	26.9	25.6	24.3
40	57.6	56	54.4	52.8	51.2	49.6	48	46.4	44.8	43.2	41.6	40	38.4	36.8	35.2	33.6	32	30.4
50	-	-	-	-	-	62	60	58	56	54	52	50	48	46	44	42	40	38
63	-	-	-	-	-	-	-	-	-	-	-	63	60.5	58	55.4	52.9	50.4	47.9

SPA201 Technical Characteristics

		SPA201
Tested to		EN 61643-11 2002-12
SPD type / class		Type 1 + Type 2 / Class I
Energy-coordinated protection effect on terminal equipment		Type 1 + Type 2
Energy-coordinated protection effect on terminalequipment ≤ 5 m		Type 1 + Type 2 + Type 3
Type of connection		Parallel connection
Type of power supply system		TT / TN system
Type of protection		common and differential modes
Nominal voltage	U_N	230V/400V ac
Rated voltage	U_C	255V ac
Voltage protection level	U_P	≤ 1.5 kV
TOV Voltage	U_T	440V / 5s 1200V / 200ms
Rated load current	$I(L)$	n/a
	$I(L-L)$	n/a
Follow current interrupting rating	I_{fi}	25kA rms 100A rms
Nominal discharge current (8/20)	I_n	12.5kA 25kA
Impulse current (10/350)	I_{imp}	12.5kA 25kA
Max. rating of overcurrent protection	fuse	160A gL / gG
	MCCB	n/a
Short-circuit withstand capability with max. overcurrent protection	fuse	25kA rms
	MCB	n/a
Response time	t_A	≤ 100 ns
Operating temperature range		- 40°C+ 80°C
Indication of SPD disconnector		Green/Red flag on L and N
Cross sectional area	min	1,5mm ² solid / flexible
	max	35mm ² stranded / 25mm ² flexible
Tightening torque for terminals		4 Nm
Mounting on		35mm DIN rail in accordance with EN 60715
Enclosure material		grey thermoplastic, UL 94V-0
Degree of protection		IP20
Modular width		2
Weight		275 g
Approval marking		KEMA

SPN215D/R Technical Characteristics

		SPN215D/R
Tested to		EN 61643-11 (VDE0675-6-11) 2002-12
SPD type		Type 2 according to EN 61643-11
SPD class		Class II according to IEC 61643-1
Type of connection		Parallel connection
Maximum continuous operating voltage U_C	Line / Neutral	≤ 255 V
	Neutral/ PE	≤ 275 V
Voltage protection level	U_P	≤ 1 kV
Nominal discharge current (8/20 μ s) [(DC+/DC-) --> PE]	I_n	5kA
Max. discharge current (8/20 μ s) [(DC+/DC-) --> PE]	I_{max}	15kA
Short-circuit withstand capability with max. overcurrent protection		10kA - 32A
Operating temperature range		- 40°C+ 80°C
Indication of SPD disconnector		Green - Yellow - Red
Cross sectional area	min	1,5mm ² solid / flexible
	max	35mm ² multi-stranded / 25mm ² flexible
Tightening torque for terminals		4.0 Nm
Mounting on		35mm DIN rail in accordance with EN 60715
Enclosure material		grey thermoplastic, UL 94V-0
Degree of protection		IP20
Modular width (DIN 43880)		2
Auiliary contact. Voltage/ nominal current (only applicable on the R suffix products)		230V/ 0.5A 12Vdc 10mA

SPV325 Technical Characteristics

		SPV325
Tested to		EN 61643-11 (VDE0675-6-11) 2002-12
SPD type		Type 2 according to EN 61643-11
SPD class		Class II according to IEC 61643-1
Type of connection		Parallel connection
Maximum continuous operating voltage	U_{cpV}	$\leq 1000V$
Voltage protection level	U_p	$\leq 4kV$
Voltage protection level for 5kA	U_p	$\leq 3,5kV$
Total discharge current (8/20 μs)	I_{total}	40kA
Nominal discharge current (8/20 μs) [(DC+/DC-) --> PE]	I_n	12.5kA
Max. discharge current (8/20 μs) [(DC+/DC-) --> PE]	I_{max}	25kA
Short-circuit withstand capability with max. overcurrent protection	I_{scwPV}	50 A / 1000 V DC
Response time	t_A	$\leq 25ns$
Operating temperature range		- 40°C 80°C
Indication of SPD disconnector		green - red
Cross sectional area	min	1.5mm ² solid / flexible
	max	35mm ² multi-stranded / 25mm ² flexible
Tightening torque for terminals		4.0 Nm
Mounting on		35mm DIN rail in accordance with EN 60715
Enclosure material		Grey thermoplastic, UL 94V-0
Degree of protection		IP20
Installation width		3 modules, DIN 43880
Weight		316g

SPN203N Technical Characteristics

		SPN203N
Tested to		EN 61643-11 (VDE0675-6-11) 2007-08
SPD type / class		T3 / III
Ports		one port
Type of connection		Parallel connection
Type of power supply system		TT / TN system
Nominal voltage	U_N	230V ac
Rated voltage	U_c	255V ac
Voltage protection level (L - N)	U_p	$\leq 1.25kV$
Voltage protection level (L/N - PE)	U_p	$\leq 1.5kV$
TOV - Characteristic (L - N)	U_T	335V / 5s
TOV - Characteristic (L/N - PE) (I)	U_T	400V / 5s
TOV - Characteristic (L/N - PE) (II)	U_T	1200V / 200 ms
Rated load current	I_L	16 Aeff
Nominal discharge current (8/20)	I_n	3kA
Maximal discharge current (8/20)	I_{max}	5kA
Combination wave (1,2/50 - 8/20) (L - N)	U_{oc}	6 kV
Combination wave (1,2/50 - 8/20) (L/N - PE)	U_{oc}	10 kV
Residual current	I_{PE}	$\leq 5\mu A$
Replacement cartridge		NO
Maximal rating of overcurrent protection	fuse	25A gL / gG
	MCB	25A B curve
Short-circuit withstand capability with max. overcurrent protection	fuse	6kA eff ac
	MCB	1kA eff ac
Response time	t_A	$\leq 25ns$
Operating temperature range		- 25°C 40°C
Indication of SPD disconnector		NO
Remote signalisation contact		Green light off
Cross sectional area	min	1.5mm ² solid / flexible
	max	10mm ² stranded / 6mm ² flexible
Tightening torque for terminals		1.2 Nm
Mounting on		35mm DIN rail in accordance with EN 60715
Enclosure material		Grey thermoplastic, UL 94V-2
Degree of protection		IP20
Installation width		2 modules, DIN 43880

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