

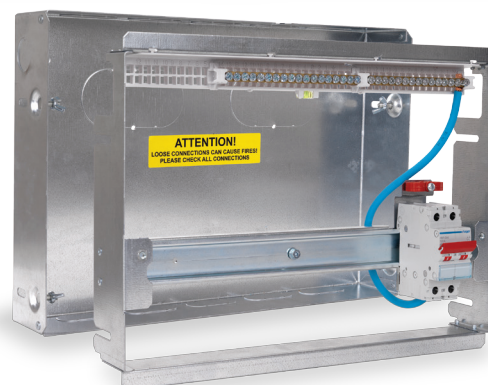
# Consumer Unit Design 50 Flush Switch Disconnecter

For the distribution of power in a residential application, conforming to BS EN 61439-3 including Annex ZB (16kA rating).

Design 50 has been created to fulfil the requirements in the market for an aesthetically pleasing consumer unit which meets the requirements of the wiring regulations (BS 7671) and allows the consumer unit to be installed flush at the height stated in the building regulations (Part M), with minimum impact on the area.

The board when fitted with RCBO on outgoing circuits is designed to allow compliance with BS 7671:2008 regulations; 411.3.3 additional protection by means of a 30mA RCD, 314.1&2 segregation of circuits to avoid danger and minimise inconvenience in the event of a fault, 522.6.202 protection of wiring concealed in walls or partitions.

The curved lines remove the harsh appearance of a surface mounted enclosure on the wall. The ability to provide bespoke colour and pattern finishes allows the board to become part of the interior design by either blending in or making a statement.



VSR110

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

### Devices

Single Pole, Single Mod RCBO 6kA, 6A - 45A	ADN***
Single Pole, Single Mod Reduced Height RCBO 6kA, 6A - 32A	ADA3**G

## Features & Benefits

- Cable clamp - Secures supply cables on entry to main incoming device preventing any movement being transmitted through metertails to device
- Rear Knockouts for ease of cable entry – Cable protector plate (VM02CE) provided
- 2 piece base allows for first fix, second fix option
- Adjustable Depth Base - Base assembly is adjustable from 72mm to 92mm, at 72mm allows for 60mm studwork and 12mm plasterboard
- Full metal DIN rail – Secure and stable attachment of devices
- Quick release clip on MCB/RCBO – Allows removal of MCB/RCBO with busbar still in place
- Optimised cabling space – DIN rail position allows maximum cabling space
- Top mounted terminal rail makes the wiring of the neutral and earth connections neat and simple.
- Health and Safety lock allows the door to be secured with circuits isolated during construction (via accessory, see overleaf).
- Torque settings displayed inside front cover so they're easily accessible by the electrician.
- Lockable front door via an accessory (see overleaf).
- Available in a full range of colours, anodised finishes and vinyl wrap options, please contact the Estimation Team on 01952 675600.
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### Technical Characteristics

Standards	BS EN 61439-3
Classification	Consumer Unit
Rated & Operational Voltage ( $U_N/U_e$ )	230V a.c 50 Hz
Rated Insulation Voltage ( $U_i$ )	320V a.c. 50Hz
Rated Frequency (fn)	50 Hz
Rated impulse withstand voltage ( $U_{imp}$ )	4kV
Rated Current of the Assembly ( $I_{na}$ )	100A
Rated Current of an Outgoing Circuit $I_{nC}$	MCB 6A - 63A (Marked Rated Current on Device)
Rated Conditional Short Circuit of the Assembly ( $I_{cc}$ )	Annex ZB: 16kA rms at 250V, power factor 0.6 with equipment and arrangements specified in Hager's technical documentation/catalogue
Rated Current of outgoing unit ( $I_{nC}$ )	RCCB 63A - 80A (marked rated current on device)
Protection against electric shock	Consumer Unit shall be installed in an electrical system conforming to IEC 60364 / BS 7671
Rated Diversity Factor (RDF) / Values of assumed loading	6 way - 9 way = 0.6 10 way and above - 0.5

Note: RDF only applies to continuously and simultaneously loaded circuits. In principle, this means adjacent circuit breakers having a load on time exceeding 30 minutes or where a load not exceeding 30 minutes has an 'off' time less than the 'on' time will need to have the rated diversity factor applied as indicated.

Pollution Degree	2
Types of System Earthing for which the assembly is designed	TNC-S and TN-S when installed in an electrical system conforming to BS 7671
Intended locations	Indoor use only
Stationary assembly	
Degree of protection	IP2XC with door open / closed and full compliment of devices / blanks fitted. Note: Where cables are installed through the top wall of the enclosure, gaps of IP4X to be maintained.
Intended use	Intended for use in domestic (residential) or similar premises
Electromagnetic compatibility (EMC) classification	EMC environment B
External design	Wall mounted, flush type, enclosed assembly.
Mechanical impact protection	IK05
Type of construction	Fixed parts
Incoming Line/Neutral terminal	50mm <sup>2</sup>
Incoming Earth Terminal	16mm <sup>2</sup>





Warranty - Hager undertakes to replace or repair at its discretion products should they become inoperable within the time periods as stated - 2 Years.

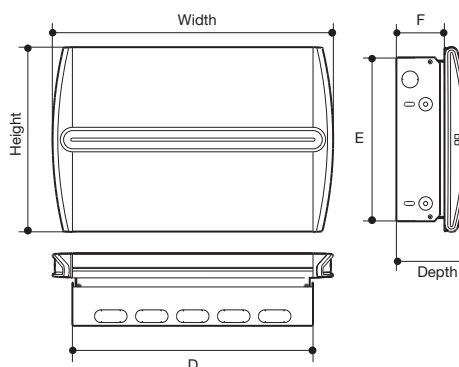
### Accessories

Design 50 Locking bracket	Provides the ability to lock the consumer unit during the installation process	VSRHBL
Design 50 Padlock	Used with VSRHBL	JK25A
Design 50 Door Lock	Allows door to be lockable	VSRLOCK
38mm Open Grommet	Allows protection of cables entering top or bottom of the enclosure	VMGROM
Grommet strip	For protecting cables against damage when entering the board	VM05GS

### 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			
 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



#### Adjustable Depth Base

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