

# Consumer Unit Design 10 Garage Board

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

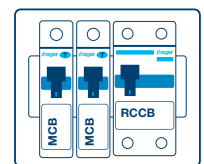
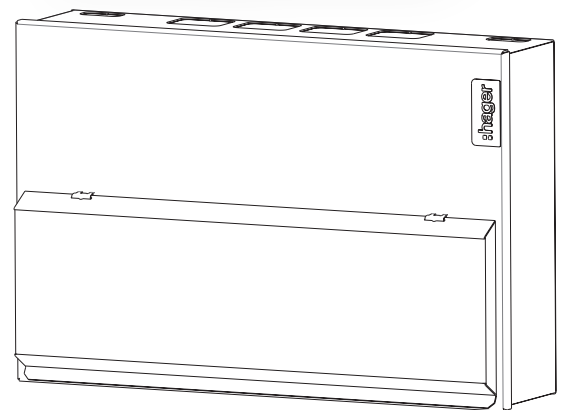
Design 10 consumer unit is an entry level board designed for all applications and allows compliance with BS 7671:2018;

Regulation 421.1.201 within domestics (household) applications consumer units and similar assemblies shall comply with BS EN 61439-3 and shall have their enclosure manufactured from a non-combustible material.

Regulation 411.3.3 additional protection by means of a 30mA RCD. Regulation 522.6.202 protection of wiring concealed in walls or partitions.

Regulation 531.3.3 Selection of appropriate RCD. Type A RCCBs can detect and respond to both AC and pulsating DC components.

Garage boards are designed to local final circuits in a garage or similar location. They comprise of a 4-module enclosure with a 40A, 30mA Type A RCCB providing earth leakage protection for a 6 A MCB for Lighting and a 32 A MCB for power outlets.



VML24AH

## Description

|   | Size   | Cat ref. |
|---|--------|----------|
| 2 Way Garage Board 40A 30mA Type A RCCB Incomer with 1*32 A and 1*6 A MCB | Size 2 | VML24AH  |

## Features & Benefits

- Type A RCCBs for general purpose circuits and circuits containing equipment incorporating electronic components.
- Square cable entry points top and bottom for use with cable trunking
  - Meter tail cable entry plate (VM04CE) provided
  - Rigid top wall – Enhances rigidity to prevent distortion when removing knockouts
  - Rear Knockouts for ease of cable entry – Cable protector plate (VM02CE) available as accessory
  - Front cover retained screws – Prevents loss during installation
- Full metal DIN rail – Secure and stable attachment of devices
- Quick release clip on MCB – Allows removal of MCB with busbar still in place
- Optimised cabling space – DIN rail position allows maximum cabling space.
- Top mounted terminal rail for each row makes the wiring of the neutral and earth connections neat and simple.
- Torque settings displayed inside front cover – easily accessible to electrician during installation and maintenance.

### 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 ( $I_{na}$ )   | 40A   |
| Rated Current of an Outgoing Circuit (InC)   | MCB 6A-32A (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   |
| 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   | 2 Way to 3 Way - 0.8<br>4 Way to 5 Way - 0.7<br>6 Way to 9 Way - 0.6<br>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.<br>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, surface type, enclosed assembly.  |
| Mechanical impact protection   | IK05  |
| Type of construction   | Fixed parts   |
| Incoming Line/Neutral terminal (80 - 100A board)   | 50mm <sup>2</sup>   |
| Incoming Line/Neutral terminal (63A board)   | 25mm <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

|                             |   |                |
|-----------------------------|---|----------------|
| Cable clamp                 | Secures supply cables on entry to main incoming device  | VA10MT         |
| Top wall cable entry plates | Provide more options for cable entry, when used with 50x50mm trunking IP ratings can be achieved. | VM03CE         |
| Blind cable entry plates    | A blank plate for drilling which allows the installation of cable glands etc.                     | VM04CB, VM03CB |
| Grommet strip               | For protecting cables against damage when entering board  | VM05GS         |
| Rear stand off plates       | To stand consumer unit off wall allowing surface mounted cables to enter through rear of unit.    | VM01SP         |

### Devices





MCB 6kA 6A to 63A B Curve

MTN\*\*\*

#### Design 10 Dimensions (mm)

|         | Enclosure Size |
|---------|----------------|
|         | 2              |
| Height  | 246            |
| Width   | 155            |
| Depth 1 | 83             |
| Depth 2 | 100            |

#### Number of Knockouts

|   |                          |   |
|---|--------------------------|---|
|  | Top Face 30 x 25 (mm)    | 2 |
|  | Top Face 40 x 30 (mm)    | 0 |
|  | Back 100 x 50 (mm)       | 1 |
|  | Bottom Face 30 x 25 (mm) | 2 |

