MODE

Multiple Occupancy Distribution Equipment
Low Voltage distribution up to 500A

www.schneider-electric.co.uk
Improved safety and reliability from Schneider Electric

Our low voltage distribution shielded fusegear meets your application requirements with IP2X operator protection.

Schneider Electric’s range of indoor wall mounted multiple occupancy distribution equipment provides increased safety, reliability and reduces installation time.

The MODE range provides increased safety giving operator protection to IPXXB with the door open. Improved reliability through design and rigorous testing plus the staggered outgoing phase banks increase cabling access ensuring multiple cable termination is easier, reducing costly installation time.

The MODE range is the ideal solution for providing low voltage supplies to multiple occupancy premises.

Utilising 100A house service cut outs to BS 7657 for the outgoing distribution circuits whilst the incoming supply can be directly connected up to 200A to the distribution equipment busbars or via a fused incoming device for ratings up to 500A.
MODE: Overview

The flexible range includes 7 unit types providing a total of 54 distribution solutions as standard from a 200A 2 way up to a 500A 20 way. A standard unit with dual incoming and outgoing fuseway including 10 way distribution is also available. If the solution you require is not listed as standard then please contact our customer information centre on 0870 608 8 608.

The MODE range includes accessories to accommodate different termination arrangements with the option for mechanical connectors and extension boxes for the larger incoming waveform cables up to 4C 240mm².
Safety
The operator is protected to IPXXB from live conductor with the door(s) open across the MODE range of distribution units. With the fused incoming devices over 315A IPXXB is maintained to BS EN 60529 during normal operation with the fuse handles in position. Solid plastic contact shrouds are provided as standard to cover the incoming contact once the fuse carriers have been removed. Test probe access is also provided to the upper and lower phase contacts of the incoming fused unit.

Reliability
The outgoing one piece busbar comb, manufactured from HDHC copper and electro-tin plated, limits the number of connections and potential heat spots. The busbar shrouded by a single moulded extrusion designed to mate to the majority of domestic single pole cut outs to BS 7657. The equipment range has been tested for temperature rise to ensure continued performance whilst in service and is routine tested to BSEN 61439-2 before despatch.

Ease of installation
The zinc coated steel enclosure is provided with four M8 holes punched proud of the enclosure to allow for installation to an uneven wall surface. The upper two of the M8 holes are a key way for ease of wall mounting. The IP31 ventilated enclosure is designed for indoor installation providing flexibility of installation in areas that can be accessed by the public. The enclosure has a dark admiral grey powder paint finish to No.632 to BS 381C. The process of electrostatically applying polyester powder paint and curing in an oven ensures a durable, scratch resistant high gloss long lasting paint finish.

The innovative staggered busbar design provides more than adequate cabling space for outgoing circuits. The outgoing circuit phase banks can also be removed to reduce weight during installation and also provide extra space during cabling if required.

Fast delivery
Typical lead times of 15-20 working days or less, please consult at time of order placement.
200A distribution board

STANDARD FEATURES

Incoming cable terminals
• Common cable termination area fully screened to IPXXB with a polycarbonate termination cover
• Accepts up to 3C 120mm² on M12 captive fixings
• Adjustable incoming cable clamp from 25mm to 50mm O/D

Enclosure
• Zinc coated 1.2mm steel ventilated enclosure to IP31 of BS EN 60529
• Dark admiralty grey No.632 to BS 381C
• LHS standard or can be site reconfigured to a RHS mounted door, opening to a minimum of 180 degrees
• Door is secured with captive screws
• Generous labelling card affixed to door for L1, L2 and L3 outgoing circuits
• Site reversible padlocking arrangement to prevent damage to accept a 6mm diameter padlock shackle
• 4 x M8 wall fixings punched proud of the enclosure to accommodate uneven wall surfaces

Outgoing fused units
• Mounted to solid hard drawn high conductivity electro-tin plated busbar
• Up to 4way 200A three pole solution
• 100A rated service cutouts, ENA approved design and manufactured to BS 7657
• Accept fuse links to BS 1361 (Not supplied)
• Electro-tin plated brass bar earth and neutral terminal rail with incoming M12 termination with 2 x M8 fine pinching screws per circuit
• Removable neutral/earth link
• External M12 earth stud to RHS of unit
• Incoming cable screen maintains operator protection to IPXXB from incoming cable terminations when door is opened
• Removable outgoing undrilled and centre popped steel gland plate that can be removed to facilitate cable entry via trunking if required

Accessories
Various accessories are available to add to the standard catalogue offer to suit the application these include:
• Kits for 3C or 4C incoming cables terminated with mechanical connectors
• Adaptable gland plate to suit mating to incoming 400A heavy duty cut out type SCHD6 from Merlin Gerin or GF200 or GF400/600
• Gland plate options including plywood cable exit cover, drilled steel gland plate with plastic stuffing glands or conical rubber grommets per outgoing circuit.
## Technical specification - 200A

<table>
<thead>
<tr>
<th>Specification</th>
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</tr>
</thead>
<tbody>
<tr>
<td>200A MODE range according to BSEN 61439-2</td>
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<tr>
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</tr>
<tr>
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</tr>
<tr>
<td>Rated frequency</td>
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</tr>
<tr>
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<td></td>
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<tr>
<td>Type of earthing systems</td>
<td>TN-C-S / TN-S</td>
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<tr>
<td>Enclosure rating to BS EN 60259</td>
<td>IP</td>
</tr>
<tr>
<td>Operator protection (doors open) to BS EN 60529</td>
<td>IP</td>
</tr>
<tr>
<td>Enclosure dark admiralty grey painted finish to BS 381C</td>
<td>No</td>
</tr>
<tr>
<td>Incoming cable termination</td>
<td>M12</td>
</tr>
<tr>
<td>Neutral and earth incoming cable terminations</td>
<td>M12</td>
</tr>
<tr>
<td>Maximum size of incoming cable to busbar</td>
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<tr>
<td>Maximum size of outgoing cable from house service cut outs</td>
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200A distribution board

TECHNICAL SCHEDULE

This document specifies those distribution boards for use indoor at 230/400V where multiple standard domestic 100A services are required within one building.

It is not intended to define the total extent of the offer, only those catalogued in this selection guide. Should your requirements not be defined or accommodated by this specification then please contact our customer information centre on 0870 608 8 608.

Standards

In order to be accepted, the distribution boards comply with the requirements of the following standards, specifications and recommendations.

- **BSEN 61439-2**: Specification of low voltage switchgear and control assemblies.
- **BS EN 60529**: Specification for degrees of protection provided by enclosures (IP codes).
- **BS 7657**: Specification for fuses (cut-outs), ancillary terminal blocks and interconnecting units up to 100A rating, for power supplies to buildings.
- **BS1361:1971**: Specification for cartridge fuses for A.C. circuits in domestic and similar premises.
- **IEC 60269-2-1**: Low voltage fuses Part 2 - 1: Supplementary requirements for fuses for use by authorised persons.
- **ENA TS 37-2**: Substation and cable distribution boards.
- **ISO 9001:2000**: Quality management system.
- **ISO 14001:1996**: Environmental management system.

Technical

1. **General**

   The only allowed types of distribution board will be a 2, 3 and 4 way TP&N distribution board.

2. **Incoming cable**

   The unit can be bottom cable entry side or Canalis. The unit shall be capable of accepting up to a 120mm² cable. The incoming cable shall be directly terminated to the busbars. The busbars are to be fully insulated to IPXXB in accordance with BS EN 60529, with no access to any bare live metalwork.

3. **Enclosure**

   The enclosure shall be IP31 rated in accordance with BS EN 60529. The doors shall be open to a minimum of 180 degrees whilst also being removable. The door shall hinge from the LHS as standard with the option to re-assemble the door to hinge on the RHS for single door enclosures.

4. **Outgoing cut-outs**

   The service cut-out shall be typically of the 100A rating. The cut-out shall be in accordance with the requirements of BS 7657. Every exit point shall have an individual fuse link to allow the de-energisation and isolation of their and only their supply. Service fuse links shall be of an ENA approved design.
315A to 500A distribution board
315A to 500A distribution board

STANDARD FEATURES

Enclosure
- Zinc coated 1.2mm steel ventilated enclosure to IP31 of BS EN 60529
- Dark admiralty grey No.632 to BS 381C
- LHS standard or can be site reconfigured to a RHS mounted door, opening to a minimum of 180 degrees
- Door is secured with captive screws
- Generous labelling card affixed to door for L1, L2 and L3 outgoing circuits
- Site reversible padlocking arrangement to prevent damage to accept a 6mm diameter padlock shackle
- Enclosure provides 4 x M8 (top two with key way) embossed wall fixings to accommodate uneven wall surfaces

Incoming fused unit
- IPXXB operator protection during normal service conditions
- Solid red plastic incoming contact shrouds provided to maintain protection from live conductors with incoming fuse carriers removed
- Removable engraveable circuit label
- Test probe access to top and bottom contacts whilst maintaining IPXXB
- Through-grip fuse carrier handles requires no tools to change fuselinks
- Rated current from 315A type YW4 and type YW6 for ratings up to 500A
- YW4 accepts 82mm centre and YW6 92mm centre type gU fuse links with wedge tightening contacts to IEC 60269-2-1 section VI
- Removable front bottom cross member to facilitate termination of up to 3C 300mm²
- Adjustable incoming cable clamp accepting 70mm² up to 300mm² for support of incoming cable
- Individual mouldings per phase to access four position incoming cable terminations eliminating phase core crossovers. YW4 or YW6 - M12 and M16 respectively

Outgoing fused units
- Mounted to solid hard drawn high conductivity electro-tin plated busbar comb
- Staggered phases front to back to allow for ease of cabling
- Phase banks can be removed for ease of cabling
- Up to 20 way 500A three pole solution
- 100A rated service cut outs, EA approved design and manufactured to BS 7657
- Accept fuselinks to BS 1361 (not supplied)
- Earth and neutral bars are manufactured from electro-tin plated brass bar with 2 x M12 and also 2 x M8 fine pinching screws per terminal
- Removeable outgoing undrilled and centre popped gland plate to facilitate cable entry via trunking if required. (see accessories for further gland plate options)
# Technical specification

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- YW4 HRC 82mm centre type gU wedge tightening contact fuselink
- House service cut out HRC fuselink
- IEC 60269-2-1
- BS 1361
- TN-C-S / TN-S

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<th>Enclosure rating to BS EN 60259</th>
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<tr>
<td>Operator protection (doors open) to BS EN 60529</td>
<td>IP XXB</td>
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<tr>
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<td>No 632</td>
</tr>
<tr>
<td>Incoming cable termination</td>
<td></td>
</tr>
<tr>
<td>Neutral and earth incoming cable terminations 12</td>
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- **BS 1361:1971** - Specification for cartridge fuses for A.C. circuits in domestic and similar premises.
- **IEC 60269-2-1** - Low voltage fuses Part 2 - 1: Supplementary requirements for fuses for use by authorised persons.
- **ENA TS 37-2** - Substation and cable distribution boards.
- **ISO 14001:1996** - Environmental management system.

Technical

1. General

The only allowed types of distribution board will be a 6, 10 and 20 way board.

2. Incoming cable

The unit shall be bottom cable entry. The unit shall be capable of accepting up to a 300mm² cable. The incoming cable shall be fused before feeding the busbars. The incoming fuse ways shall be ENA approved shielded pattern type. The busbars are to be fully insulated to IPXXB in accordance with BS EN 60529, with no access to any bare live metalwork at all possible, when the fuse carriers in place.

3. Enclosure

The enclosure shall be IP31 rated in accordance with BS EN 60529. The doors shall be open to a minimum of 180 degrees whilst also being removable. The door shall hinge from the LHS as standard with the option to re-assemble the door to hinge on the RHS.

4. Outgoing circuits

The service cut-out shall be typically of the 100A rating. The cut-out shall be in accordance with the requirements of BS7657. Every exit point shall have an individual fuse link to allow the de-energisation and isolation of their and only their supply. Service fuse links shall be of an ENA approved design.
Schneider Electric has extended the range of Canalis plug-on distribution boards to include a multi occupancy fused distribution board that connects directly to a rising main busbar. This can reduce both your installation time and costs.

Canalis is a comprehensive system of busbar trunking for lighting and power distribution, providing a simple, flexible and efficient alternative to traditional cabling in any building or structure.

The Canalis MODE range is the ideal solution for providing low voltage supplies to multi occupancy premises. Utilising 100A house service cut outs to BS 7657 for the outgoing distribution circuits, whilst the incoming supply is directly connected through a 250A switch.

The compact design of the product replaces a tap off unit, distribution board, cable tray and cabling.

Reliability

The outgoing one piece busbar comb limits the number of connections and potential heat spots. The busbar shrouded by a single moulded extrusion is designed to mate to the majority of domestic single pole cut outs to BS 7657. The range has been temperature rise tested to ensure continued performance whilst in service and is routine tested to BS EN 61439-6

Safety

The operator is protected to IPXXB with the door open. Solid plastic contact shrouds are provided as standard to cover the incoming contact once the fuse carriers have been removed.

Outgoing fused units

- Mounted to solid hard drawn high conductivity electro-tin plated busbar
- Up to 12 outgoing fuses, plug on solution
- 100A rated service cutouts, ENA approved design and manufactured to BS 7657
- Removable neutral/earth link
- Incoming conductor screen maintains operator protection to IPXXB from incoming cable terminations when door is opened

Enclosure

- Zinc coated 1.6mm steel ventilated enclosure to IP31 of BS EN 60529
- Finished to RAL 9003
- Door is secured with captive screws
- Site reversible padlocking arrangement to accept a 6mm diameter padlock shackle
### 200A plug on Canalis MODE boards according to IEC61439-1

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At Schneider Electric, we call this Life Is On.