



Installation instructions, AM3 SKELETON (L TYPE) FIXED BUSBAR RANGE



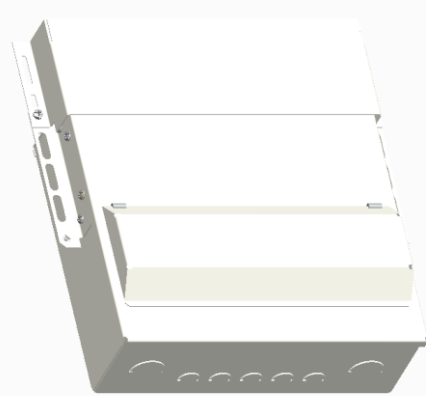
IMPORTANT INFORMATION

This unit should be installed by a qualified competent person in accordance with all relevant legislation and regulations including building regulations and wiring regulations BS7671. If in doubt contact a qualified competent person.

- Turn off all power supplying this equipment before working on or inside the equipment.
- Always use a properly rated volt-sensing device to confirm the power is off.
- Replace all devices, doors and covers before turning on the power to this equipment.
- To avoid ingress of swarf and similar material, always remove gland plates to allow cutting/slotting for cable entries.

Failure to follow these instructions could result in serious injury or death.

DO NOT USE POWER TOOL SCREWDRIVERS ON ELECTRICAL CONNECTIONS



devices. In these situations, and in common with other manufacturers, we recommend a 60% diversity factor is applied to the MCB nominal rated current where it is intended to load the MCB's continuously (in excess of 1 hour)

Before fitting the front cover, check the tightness of all connections, including factory made connections.

Device	Max. Cable Capacity	Recommended tightening torque
Main Switch / RCD	50mm ²	2.3Nm
MCB	25mm ²	2.3Nm
Standard RCBO	Outgoing connection - 16mm ²	2.0Nm
	Busbar connection	2.5Nm
Miniature RCBO	Outgoing connection - 16mm ²	2.0Nm
	Busbar connection	2.5Nm
Earth & neutral terminals	16mm ²	1.7Nm

Use No.2 Pozidrive bit

- After installation, tests must be carried out in accordance with the requirements of the current edition of the IET Wiring Regulations. It is essential that the user guide is drawn to the attention of the person responsible for its operation and is at all times available for ready reference.
- The total current supplied by the unit must not exceed the rating of the incoming main switch or RCD or any additional limitation (as shown on the way label).
- The total sum of the individual MCB ratings may exceed this value where there is appropriate diversity on the installation. It is expected that only one outgoing circuit will exceed 32A rating and it is recommended that this is installed adjacent to the incoming main switch or RCD. Others may be fitted if the diversity allows and the total load is not exceeded.
- The consumer unit must be de-rated as follows: - Max. 100% rating, continuous load (in excess of 1 hour) 90% of in-come rating. A diversity factor of 90% should be applied to all RCDs.
- This product is suitable for mounting within a meter cabinet only and is rated at IP2XC.
- The consumer unit and associated components are designed for use with copper cables and have been type tested to the following specifications: -

Consumer Unit	BSEN61439-3
MCB's	BSEN 60898-1
RCD's	BSEN 61008-1
RCBO's	IEC 61009-1
Main Switch	BSEN 60947-3

Ambient Temperature Considerations

The NH Range of MCB's are calibrated to meet the 30°C Ref Calibration Temperature requirements of BSEN 60898.

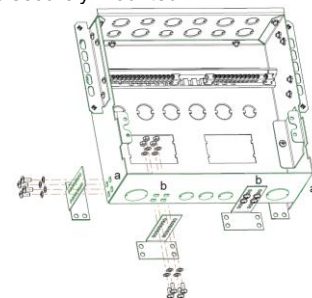
At other temperatures the following rating factors should be used:-

At 60°C	0.9	At 20°C	1.0	At 0°C	1.1
---------	-----	---------	-----	--------	-----

Adjacent thermal-magnetic MCBs should not be continuously loaded or approaching their nominal rated currents when mounted in enclosures. It is good engineering practice to apply generous derating factors or make provision for adequate free air between

1. Enclosure Mounting

- Remove appropriate KO's, cover and outer cable shroud from the enclosure. Note, the top gland plate can be removed for ease of KO removal.
- The unit must be mounted with the gland plate facing upwards.
- Mount the unit into its installation position, Both 'L' brackets provided must be fitted in positions 'a' OR 'b', see Fig 2.1. When installed the base of both 'L' brackets should sit flush against the enclosure back wall in order to support the unit. Assess which 'L' bracket position (a OR b) best suits the installation and which bracket fixing holes should be used (the depth of the bracket fixing can be adjusted using the various bracket holes). Remove the unit from the installation.
- Remove the appropriate 'L' bracket fixing blanks from positions 'a' OR 'b' (4 per bracket) by drilling or knocking out from the inside of the unit. The baseplate should be removed to aid the 'L' bracket installation.
- Use the following fasteners provided to attach each 'L' bracket to the box: 4 x M5 screws, 4 x M5 nuts and 8 x M5 serrated washers, See Fig. 2.1.
- Mount the unit into its installation position. Secure the wing fixings first using M6 fixings. Both 'L' brackets should then be screw-fixed with M6 size screws (not supplied) to the cabinet back wall. See Fig. 2.2.
- Check the unit is securely mounted.



Electrium Sales Limited, Walkmill Lane, Cannock, WS11 0XE
Tel: 01543 455000 Fax: 01543 455001



Waste electrical products should not be disposed of with household waste. Please recycle where waste disposal facilities exist. Check with your retailer, wholesaler or local authority for recycling advice.



Installation instructions, AM3 SKELETON (L TYPE) FIXED BUSBAR RANGE



Fig. 1.1

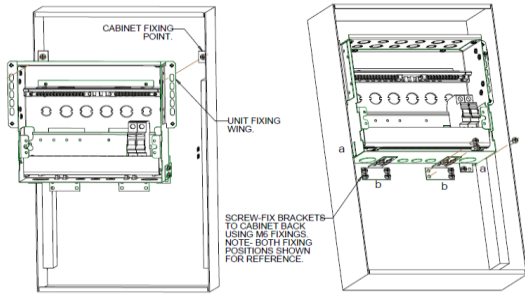


Fig. 1.2

- Bring cables through appropriate apertures.
- Route main incoming cables to desired position.

2. Connection of Main Incoming Device

- Cut and dress the main incoming cables and earth conductor. Fit them into the appropriate terminals. (Fig 2.1)

Note: Extra holes are provided on the earth bar for bonding purposes.

- Tighten the main incoming terminals securely. (See recommended tightening torque.)

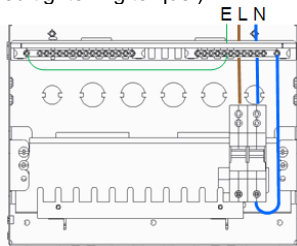


Fig 2.1 Incoming Terminal Connections

3. Installation of MCB's and RCBO's

- Only NHX range MCBs and NHXSBS range RCBOs must be used within Wylex AM3 skeleton range consumer units.
- Slide MCB onto busbar (Fig 3.1)

Locate under edge of mounting rail

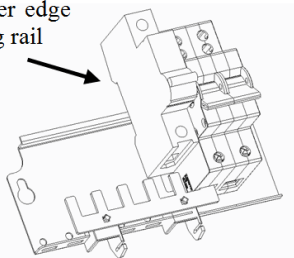


Fig 3.1

- Ensure MCB engages onto the mounting rail
- Tighten terminal screw. (See recommended tightening torque.)
- NOTE: Cage type terminals are used in these devices. Ensure the terminals are opened fully before inserting cables (suitable for copper cables only).
- It is recommended that the highest rated MCB or RCBO is fitted nearest to the main incoming device (or split-load RCD where relevant).

4. Circuit Connections to MCB's and RCBO's

- Cut, dress and connect circuit conductors to appropriate MCB, RCBO, neutral and earth terminals. (Figs 4.1 and 4.2)
- Ensure that each neutral outgoing circuit is correctly made to its corresponding numbered terminal (Figs 4.1 and 4.2)

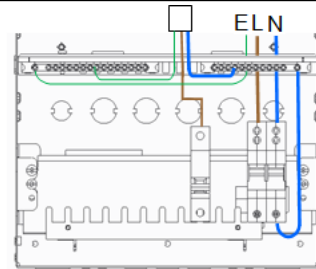


Fig 4.1 Connections to MCB's

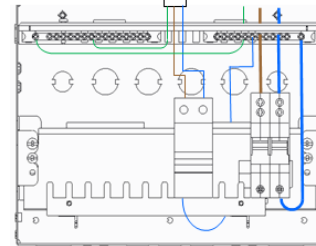


Fig 4.2 Connections to RCBO's

5. Installation of Control Devices

- Control devices such as timers, transformers and contactors can only be fitted to the consumer units supplied with an accessory rail. The incoming supply for the device must be fed from an MCB (not directly from the busbar).

6. Circuit Identification

- The consumer unit way label is fixed on the front cover of the consumer unit.
- Pre-printed identification labels are provided and should be fixed in position on the way label according to the outgoing circuit.

7. Replacement of Covers.

- It is important to replace the busbar insulation shield and fit the front cover to complete the installation.
- The outer cable shroud should be fitted after the front cover is fitted. The shroud is screwed directly to the unit fixing wings. The shroud can be adjusted vertically to ensure all cables entering the top gland plate are shrouded. See Fig. 7.1. and 7.2.

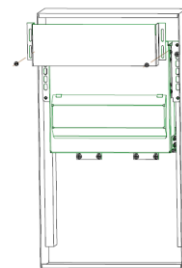


Fig. 7.1



Fig. 7.2

8. Blanking of Unused Ways

- Blanking plates should be fitted to cover any spare modular ways. Blanking plates are available if required.

9. Testing of the Installation

- After completion of the installation, it is essential that it is tested in accordance with the latest Edition of the IET Wiring Regulations for Electrical Installations (BS7671).
- It is important that the following are included in the above:
 - Operation of the test button of any RCD's fitted.
 - Verification that the earth loop impedance requirements are satisfactory.

