Installation instructions,
NM RANGE FLEXIBLE BUSBAR
Consumer Units
230 / 240V a.c.
BSEN61439-3

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.**

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

DO NOT USE POWER TOOL SCREWDRIVERS ON ELECTRICAL CONNECTIONS



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 32 A 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.
This product is suitable for indoor use 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
MCBs	BSEN60898-1 Type B or C
RCDs	BSEN61008-1
RCBOs	BSEN61009-1 Type B or C
Main Switch	BSEN60947-3
SPD	BSEN61643-11
AFDD	BSEN62606 Type B or C

Ambient Temperature Considerations
The NH Range of MCB's are calibrated to meet the 30 °C Ref Calibration Temperature requirements of BSEN 60898-1. At other temperatures the following rating factors should be used:-

At 60 °C use 0.9	At 20 °C use 1.0	At 0 °C use 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 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	50 mm^2	2.3 Nm	
MCB	25 mm^2	2.3 Nm	
RCBO	Outgoing connection – 16 mm^2	2.0 Nm	
AFDD	Outgoing connection – 16 mm^2	1 MOD	2.0 Nm
Earth & neutral terminals	16 mm^2	1.7 Nm	
SPD	1.5 mm^2 to 16 mm^2	3.0 Nm	

Use No.2 Pozidrive bit

1. Introduction
Each flexible unit is designed to cover a range of split load configurations simply by sliding the RCD into the appropriate position on the DIN rail.

2. Fix unit to Wall
Remove the front cover by unscrewing the two screws under the visor. Fasten the base of the enclosure to a flat wall or rigid surface.

3. Installation of MCBs, RCBOs and AFDDs
Only NHX range MCBs and NHX range RCBOs, RCCBs, AFDDs, SPDs and main switches must be used within Wylex NM range flexible consumer units.
Fasten all devices directly onto the DIN rail.

4. Cut busbar
Each unit is supplied with 2 or 3 busbars, which should be cut to suit the required number of outgoing ways on the isolator and the RCDs. NOTE – BUSBARS MUST BE CUT FROM THE LEFT HAND SIDE, see Fig 1 for orientation. Unused ways should be insulated using the yellow busbar insulation supplied with the unit.

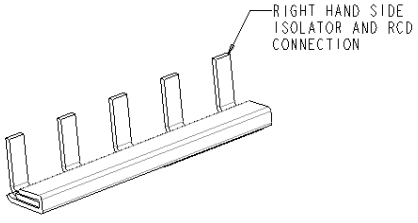


Fig. 1

5. Install busbars
Undo the bottom terminal screws on all MCBs / RCBOs, and the live terminal of the isolator and/or RCD. Insert the busbars into the terminal cages. The right hand pin is to be inserted in the main switch or RCDs the other pins are for the outgoing devices. Ensure the busbars are fully inserted above any cable links and then tighten all terminal screws adequately (see Fig 2.1). For Dual RCD units, both busbars connect to their appropriate RCD.

Electrium Sales Limited, Walkmill Lane, Cannock, WS11 0XE
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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.

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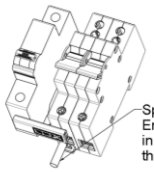


Fig 2.1

Split Load Units:
Ensure stripped welded cable end is fully in position under the busbar before tightening the busbar terminal screw

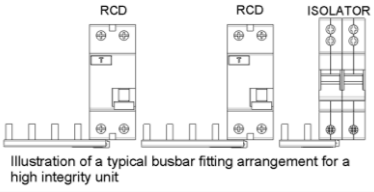


Fig 2.2

Illustration of a typical busbar fitting arrangement for a high integrity unit

6. Circuit identification for split load units

Cut the circuit identification labels to suit the number of outgoing ways on both of the isolating devices and apply the labels to the front surface of the front cover.

7. Blanking unused ways

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

8. Testing and commissioning

After completion of the installation, it is essential that it is tested in accordance with the current Edition of the IET Wiring Regulations (BS7671).

It is important that the following are included in the above: -

- Operation of the test button of any RCDs, RCBOs, AFDD/RCBOs fitted.
- Verification that the Earth loop impedance requirements are satisfactory.

9. Consumer Unit Accessories

CABLE ENTRY PATTRESSES used with all metal consumer units allowing compliance with BS7671 416.2.2. IP4X can be maintained on the consumer unit's horizontal top surface by providing cable entry via rear knock outs.

Pattress cable entry slots can be provided top or bottom or left or right.

Top / Bottom	Width	Left / Right	Width
MNSPE-6462/BNR	7 module	MNSPE6668/7NR	7 module
MNSPE-6462/CNR	10 module	MNSPE6668/10NR	10 module
MNSPE-6462/DNR	13 module	MNSPE6668/13NR	13 module
MNSPE-6462/ENR	16 module	MNSPE6668/16NR	16 module
MNSPE-6462/FNR	21 module	MNSPE6668/21NR	21 module

Fire retardant CABLE MEMBRANE ENTRIES protect cables from damage and support compliance with the IP4X requirement BS7671 416.2.2.

NMCE1	Kit 1 3 x 32 mm & 7 x 20 mm
NMCE2	Kit 2 10 x 20 mm

In line with published IET formal recommendation MAINS TAILS GLANDS will protect mains tails at their point of entry into all metal consumer units. Furthermore disturbance of mains tails within the consumer unit, up to their point of connection to the isolator, is restricted.

EIU	Tails Gland Kit

INTUMESCENT STRIPS will dramatically subdue or fully extinguish any fire which may occur within a consumer unit. The addition of an intumescent strip within a correctly installed all metal consumer unit will support the requirement of BS7671 421.1.201 effectively containing and suppressing a fire at source.

NMFS07	7 module
NMFS10	10 module
NMFS13	13 module
NMFS16	16 module
NMFS21	21 module

TEMPORARY LOCKING KIT for use with consumer units with curved visors while installing on site. (Fig 3)

NMTLK2	Temp locking kit for curved visor

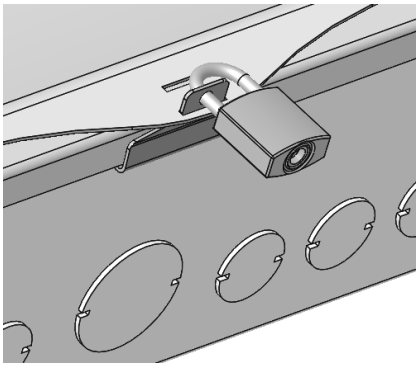


Fig 3

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