



Wylex consumer units
and the 17th edition



It's important to understand that the 17th Edition differentiates between installations depending on the user. E.g. the regulations talk of "installations not under the supervision of skilled or instructed persons" and "socket outlets for general use by ordinary persons" This type of installation requires "Additional Protection" by use of 30mA RCDs on many circuits that have not previously needed protection by RCDs.

Considering most domestic installations have a few socket circuits, a few lighting circuits a couple of bathroom circuits amongst others and, if all of these have been wired in the traditional manner, with twin & earth cable beneath the plaster surface, its difficult to come to any other conclusion than every circuit requires 30mA protection as well as protection by MCBs.

However, it's important to ensure that a single fault does not cause inconvenience, danger or other hazards

therefore more than one 30mA RCD will be required. For example a fault on the shower should not plunge the bathroom into darkness at the same time.

There are many types of property to consider from bed-sits to multi storey town houses. Dwellings with one bathroom to larger properties with two bathrooms and en-suites. Each will require its own design considerations.

There are many types of equipment to consider too. Some that can be grouped together onto one RCD like in a split load board but, there are other items of equipment that may require a dedicated supply such as smoke alarms, burglar alarms, warden call, door entry etc.

Wylex can offer a variety of consumer units and devices that will help the designer and installer to meet these new regulations.



CONSUMER UNITS FOR THE 17th EDITION

Under the 17th edition wiring regulations:

- All socket outlets should be protected by 30mA RCD whether on the ground floor of a house or the top floor of a high rise apartment block*
- All circuits in a room with a fixed bath or shower should be protected by one or more 30mA RCDs**
- All cables buried beneath the plaster surface of a wall or partition (at less than 50mm) should be protected by 30mA RCDs***
- All cables concealed in metal stud partitions (common in new builds) should be protected by 30mA RCDs***
- Installations should be divided up into circuits so as to take account of danger and inconvenience caused by a single fault - e.g. such as a lighting circuit ****
- Installations should be designed and arranged so as to prevent unwanted tripping of RCDs*****
- Safety services such as smoke alarms should be on independent circuits*****

SUMMARY TABLE

REGULATIONS	RELATING TO:	EXAMPLES	ADDITIONAL PROTECTION
411.3.3	Sockets up to 20A rating for general use by ordinary persons	Upstairs Sockets Downstairs Sockets Kitchen Sockets Cooker outlet with integral 13A socket Garage Sockets <i>Plus any other sockets up to 20A rated</i>	30mA RCD
701.411.3.3	All Circuits in a room with a fixed bath or shower	Shower circuit Lighting circuit Heating circuit Ventilation circuit Shaver Socket <i>Plus other circuits</i>	30mA RCDs
522.6.101 522.6.102 and 522.6.103	All circuits buried in a wall or partition at less than 50mm and without mechanical protection	Downstairs Lighting Upstairs Lighting Immersion heater Burglar Alarm Smoke Alarms <i>Plus any other circuits</i>	30mA RCD

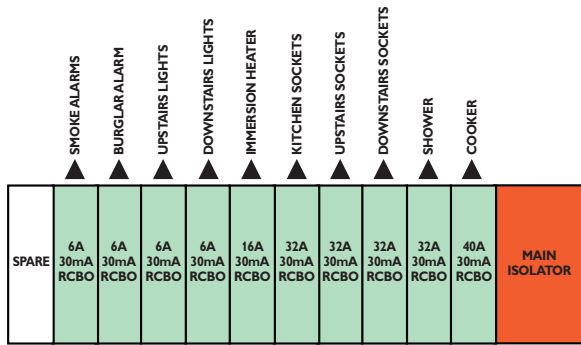
Note: Each circuit may have more than one reason for additional protection by 30mA RCD eg: firstly because of the equipment ie: a socket outlet and secondly because of the cable installation method. Additional protection is provided as additional protection. It does not obviate the need for circuit protection by circuit breakers or fuses.

- * Regulation 411.3.3 socket outlets with a rated current not exceeding 20A that are for general use by ordinary persons (exemption may be permitted).
- ** Regulation 701.411.3.3 Additional protection shall be provided for all circuits of the location by use of one or more 30mA RCD.
- *** Regulations 522.6.101 522.6.102 522.6.103 cables concealed in a wall or partition at less than 50mm depth and without earthed mechanical protection e.g. conduit.
- **** Regulation 314.1 Every installation shall be divided into circuits as necessary to avoid danger and inconvenience in the event of a fault, take account of danger that may arise from the failure of a single circuit such as a lighting circuit, reduce the possibility of unwanted tripping of RCDs etc.
- **** Regulation 314.2 Separate circuits to be provided for parts of the installation that need to be separately controlled in such a way that those circuits are not affected by the failure of other circuits.
- ***** Regulation 560.7.1 Chapter 56 circuits for safety services shall be independent of other circuits.

In addition Chapter 51 requires designers/installers to take account of all relevant British Standards and manufacturers instructions. For example BS5839 Part 6 is the British Standard for fire detection and alarm systems in dwellings. It states that power supplies to Grade D smoke alarms should be an independent circuit at the consumer unit, or a separately electrically protected local lighting circuit.

British Standards and IEE regulations are subject to change and amendments. This guide to Wylex consumer units is not a substitute for the regulations which should always be used for all types of electrical installation design and installation work.

WYLEX MAIN SWITCH (ALL INDEPENDENT CIRCUITS)

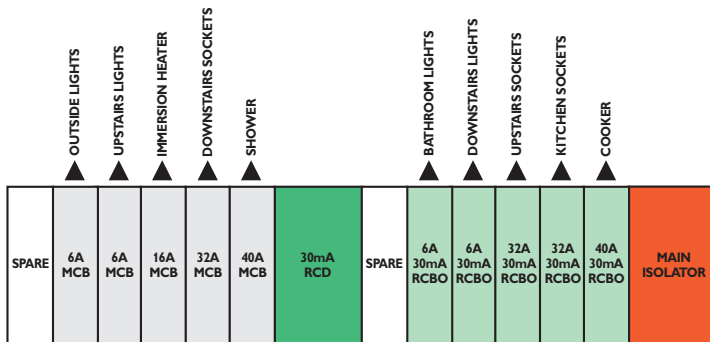


Utilising RCBOs throughout would provide a secure dedicated 30mA protected supply to every circuit.



NH1104

WYLEX SPLIT LOAD UNITS (HALF INDEPENDENT CIRCUITS)

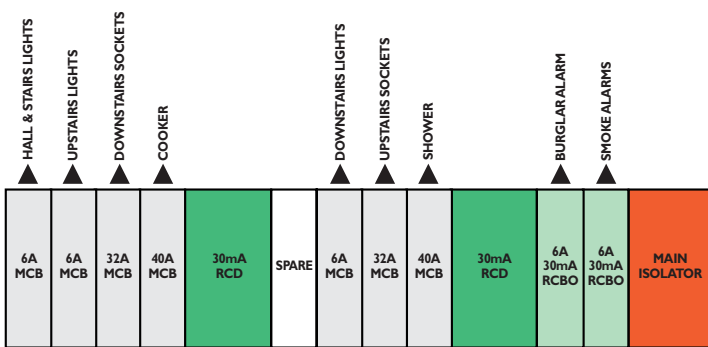


Split Load consumer unit with a small group of circuits on the RCD and all others on independent devices (RCBO).



NHRS6604

WYLEX HIGH INTEGRITY (SOME INDEPENDENT CIRCUITS)

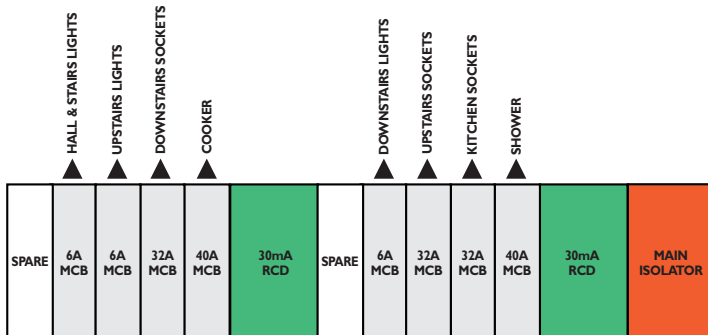


Uses two RCD protected sections and a number of ways for dedicated (High Integrity Circuits) using 30mA RCBOs.



NHRS44204

WYLEX DUAL RCD (NO INDEPENDENT CIRCUITS)



Dual RCD unit with two sections - each protected by a 30mA RCD. Suitable for smaller dwellings.



NHISS5504

MAIN SWITCH CONSUMER UNITS

Insulated	Metal	Description	Switch	Total
NH504	NH506	5 Way unit with 100A main switch	5	5
NH804	NH806	8 Way unit with 100A main switch	8	8
NH1104	NH1106	11 Way unit with 100A main switch	11	11
NH1404	NH1406	14 Way unit with 100A main switch	14	14
NH1904	NH1906	19 Way unit with 100A main switch	19	19

SPLIT LOAD CONSUMER UNITS

Insulated	Metal	Description	Switch	RCD	RCD	Total
NHRS6SL	NHRS6SLM	6 Way Flexible unit with 100A switch & 80A 30mA RCD	2 to 4	2 to 4	n/a	6
NHRS3304	NHRS3306	6 Way Unit with 100A switch & 80A 30mA RCD	3	3	n/a	6
NHRS4204	NHRS4206	6 Way Unit with 100A switch & 80A 30mA RCD	2	4	n/a	6
NHRS9SL	NHRS9SLM	9 Way Flexible unit with 100A switch & 80A 30mA RCD	3 to 6	3 to 6	n/a	9
NHRS3604	NHRS3606	9 Way Unit with 100A switch & 80A 30mA RCD	6	3	n/a	9
NHRS4504	NHRS4506	9 Way Unit with 100A switch & 80A 30mA RCD	5	4	n/a	9
NHRS5404	NHRS5406	9 Way Unit with 100A switch & 80A 30mA RCD	4	5	n/a	9
NHRS6304	NHRS6306	9 Way Unit with 100A switch & 80A 30mA RCD	3	6	n/a	9
NHRS12SL	NHRS12SLM	12 Way Flexible unit with 100A switch & 80A 30mA RCD	3 to 9	3 to 9	n/a	12
NHRS6604	NHRS6606	12 Way Unit with 100A switch & 80A 30mA RCD	6	6	n/a	12
NHRS7504	NHRS7506	12 Way Unit with 100A switch & 80A 30mA RCD	5	7	n/a	12
NHRS8404	NHRS8406	12 Way Unit with 100A switch & 80A 30mA RCD	4	8	n/a	12
NHRS9304	NHRS9306	12 Way Unit with 100A switch & 80A 30mA RCD	3	9	n/a	12
NHRS17SL	NHRS17SLM	17 Way Flexible unit with 100A switch & 80A 30mA RCD	5 to 12	5 to 12	n/a	17
NHRS61104	NHRS61106	17 Way Unit with 100A switch & 80A 30mA RCD	11	6	n/a	17
NHRS71004	NHRS71006	17 Way Unit with 100A switch & 80A 30mA RCD	10	7	n/a	17
NHRS8904	NHRS8906	17 Way Unit with 100A switch & 80A 30mA RCD	9	8	n/a	17
NHRS10704	NHRS10706	17 Way Unit with 100A switch & 80A 30mA RCD	7	10	n/a	17

HIGH INTEGRITY TWO RCD CONSUMER UNITS

Insulated	Metal	Description	Switch	RCD	RCD	Total
NHRS23204	NHRS23206	7 Way High Intergrity Dual RCD Consumer Unit	2	3	2	7
NHRS44204	NHRS44206	10 Way High Intergrity Dual RCD Consumer Unit	2	4	4	10
NHRS43304	NHRS43306	10 Way High Intergrity Dual RCD Consumer Unit	3	3	4	10
NHRS33404	NHRS33406	10 Way High Intergrity Dual RCD Consumer Unit	4	3	3	10
NHRS76204	NHRS76206	15 Way High Intergrity Dual RCD Consumer Unit	2	6	7	15
NHRS66304	NHRS66306	15 Way High Intergrity Dual RCD Consumer Unit	3	6	6	15
NHRS46504	NHRS46506	15 Way High Intergrity Dual RCD Consumer Unit	5	6	4	15
NHRS55504	NHRS55506	15 Way High Intergrity Dual RCD Consumer Unit	5	5	5	15
NHRS45604	NHRS45606	15 Way High Intergrity Dual RCD Consumer Unit	6	5	4	15
NHRS10SSLHI	NHRS10SSLMHI	10 Way High Intergrity Flexible unit with 100A main switch & 2x 30mA RCD	2 to 5	2 to 5	2 to 5	10
NHRS15SSLHI	NHRS15SSLMHI	15 Way High Intergrity Flexible unit with 100A main switch & 2x 30mA RCD	2 to 9	2 to 9	2 to 9	15

DUAL RCD SPLIT LOAD CONSUMER UNITS

Insulated	Metal	Description	Switch	RCD	RCD	Total
NHISS3404	NHISS3406	7 Way Dual RCD unit with 100A MS & 2x 30mA RCD	-	3	4	7
NHISS5504	NHISS5506	10 Way Dual RCD unit with 100A MS & 2x 30mA RCD	-	5	5	10
NHISS8704	NHISS8706	15 Way Dual RCD unit with 100A MS & 2x 30mA RCD	-	8	7	15
NHISS10SL	NHISS10SLM	10 Way Dual RCD Flexible unit with 100A main switch & 2x 30mA RCD	-	5	3 to 7	10
NHISS15SL	NHISS15SLM	15 Way Dual RCD Flexible unit with 100A main switch & 2x 30mA RCD	-	8	6 to 9	15
	NHDISS119	20 Way Dual RCD unit with 100A MS & 2x 30mA RCD duplex	-	11	9	20
	NHDISS1214	26 Way Dual RCD unit with 100A MS & 2x 30mA RCD duplex	-	12	14	26

OFF PEAK ELECTRIC HEATING CONSUMER UNITS

Insulated	Metal	Description	RCD	Total
NHRS504	NHRS506	5 Way unit with 100A 30mA main RCD	5	5
NHRS804	NHRS806	8 Way unit with 100A 30mA main RCD	8	8
NHRS1104	NHRS1106	11 Way unit with 100A 30mA main RCD	11	11
NHRS1404	NHRS1406	14 Way unit with 100A 30mA main RCD	14	14
NHRS1904	NHRS1906	19 Way unit with 100A 30mA main RCD	19	19

Ideal for heating installations where single fault will not cause inconvenience or danger

FAL SKELETON UNITS

Insulated	Metal	Description	Switch	RCD	RCD	Total
-	FALNHISS4606	10 Way Dual RCD Split Load unit with 2x 30mA RCD	-	4	6	10
-	FALNHRS10SL	10 Way Flexible unit with 100A switch & 80A 30mA RCD	4 to 7	4 to 7	-	10
-	FALNHRS15SL	15 Way Flexible unit with 100A switch & 80A 30mA RCD	5 to 9	5 to 9	-	15
-	FALNH806	8 Ways 100A main switch	8			8
-	FALNH1206	12 Ways 100A main switch	12			12

NSB MCB B CURVE SP	NSBS RCBO C CURVE SP	NSBS RCBO B CURVE SP	NSBS RCBO C CURVE DP	WAY BLANKS	
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NSB06	NSBS6/1	NSBS6-B/1	NSBS6/2	NHB1PP	Solid bus-bar and cover way blank
NSB10	NSBS10/1	NSBS10-B/1	NSBS10/2	NH00PP	Twist fit cover way blank
NSB16	NSBS16/1	NSBS16-B/1	NSBS16/2	NH00	Push fit cover way blank
NSB20	NSBS20/1	NSBS20-B/1	NSBS20/2		
NSB32	NSBS32/1	NSBS32-B/1	NSBS32/2		
NSB40	NSBS40/1	NSBS40-B/1	NSBS40/2		
NSB50	NSBS50/1	NSBS50-B/1	-		



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Although every effort has been made to ensure accuracy in the compilation of the technical detail within this publication, specifications and performance data are constantly changing. Latest details can be obtained from Wylex.

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