Circuit Protection Systems for Domestic Household Premises

Electrium Sale Ltd. is a Siemens company,
Wylex is part of Electrium Sales Ltd.

Contents



As a leading manufacturer of electrical domestic and industrial circuit protection products, Wylex is committed to the continual improvement of all quality assurance procedures and performance.

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GOOD REASONS TO CHOOSE WYLEX
(THERE'S NO END OF THEM)

Every single Wylex product is developed around your needs. UK Based R&D development teams design products from scratch and look after every single stage of design and performance validation.

As part of the Siemens family Wylex reaps the benefits of being in a global manufacturing network, as well as adhering to safety standards Wylex also exceed the UK legal framework. Meaning you can be sure of the quality and the safety of the product.

The Wylex test laboratory is accredited by the United Kingdom Accreditation Service (UKAS). This ensures everyone from specifiers, purchasers and users can have complete confidence in the quality of goods and in the provision of services at every stage of the supply chain.

With the largest range of domestic circuit protection products in the UK, finding the right product for your needs from the catalogue should be easy. But if you need something specific Wylex offers a unique custom-built product service.

Wylex miniature RCBOs are the same size as MCBs but also switch the neutral and totally isolate faulty circuits. Installations are safer with Wylex miniature RCBOs

Miniature RCBOs are quicker and easier to install and test saving time and money

The latest range of miniature circuit breakers are designed with a no miss terminal arrangement to ensure that connections are not misaligned bringing added termination security with Siemens technology

Wylex offers specifiers & installers the widest range of residential circuit protection products in the UK, plus three phase MCB distribution boards and MCCB panelboards and devices for commercial applications

With award winning seamless non combustible enclosures specifiers & installers can cater for the latest regulations and meet client expectations on aesthetics by choosing NMX. It looks like the familiar curvy plastic units but its made of steel

WYLEX

WHY CHOOSE ANYTHING LESS?

NMX All Metal Consumer Units

NMX16

NMXRS14SL

MAIN SWITCH - WITH KNOCKOUTS ALL SIDES

CAT REF	MS RATING	MS WAYS	RCD WAYS	RCD WAYS	TOTAL WAYS	KNOCKOUTS
NMX16	100A	16	-	-	16	All sides
NMX20*	100A	20	-	-	20	All sides

MAIN SWITCH - PLAIN SIDES

CAT REF	MS RATING	MS WAYS	RCD WAYS	RCD WAYS	TOTAL WAYS	KNOCKOUTS
NMX16P	100A	16	-	-	16	Rear only (plain sides)
NMX20P*	100A	20	-	-	20	Rear only (plain sides)

NMX ACCESSORIES

CAT REF	PRODUCT	MODULE
NMXDR2	DIN Rail Insert	2
NMXBB2I	Comb Busbar	21
NMXLDK	Temporary Door Locking Device	-

PATTRESSES

CAT REF	PRODUCT
NMXPAT1618*	18 Module Pattress
NMXPAT1622*	22 Module Pattress

* Product available late 2017

SPLIT LOAD - WITH KNOCKOUTS ALL SIDES

CAT REF	MS RATING	MS WAYS	RCD WAYS	RCD WAYS	TOTAL WAYS	KNOCKOUTS
NMXRS14SL	100A	5 - 9	9 - 5	-	14	All sides
NMXRS18SL*	100A	7 - 11	11 - 7	-	18	All sides

SPLIT LOAD - PLAIN SIDES

CAT REF	MS RATING	MS WAYS	RCD WAYS	RCD WAYS	TOTAL WAYS	KNOCKOUTS
NMXRS14SLP	100A	5 - 9	9 - 5	-	14	Rear only (plain sides)
NMXRS18SLP*	100A	7 - 11	11 - 7	-	18	Rear only (plain sides)

NMX ACCESSORIES

CAT REF	PRODUCT	MODULE
NMXDR2	DIN Rail Insert	2
NMXBB2I	Comb Busbar	21
NMXLDK	Temporary Door Locking Device	-

PATTRESSES

CAT REF	PRODUCT
NMXPAT1618*	18 Module Pattress
NMXPAT1622*	22 Module Pattress

* Product available late 2017

NMX All Metal Consumer Units

NMXRS12SSLHI

NMXISS12

HIGH INTEGRITY - WITH KNOCKOUTS ALL SIDES

CAT REF	MS RATING	MS WAYS	RCD WAYS	RCD WAYS	TOTAL WAYS	KNOCKOUTS
NMXRS12SSLHI	100A	1 - 6	6 - 1	6 - 1	12	All sides
NMXRS16SSLHI*	100A	1 - 8	8 - 1	8 - 1	16	All sides

HIGH INTEGRITY - PLAIN SIDES

CAT REF	MS RATING	MS WAYS	RCD WAYS	RCD WAYS	TOTAL WAYS	KNOCKOUTS
NMXRS12SSLHIP	100A	1 - 6	6 - 1	6 - 1	12	Rear only (plain sides)
NMXRS16SSLHIP*	100A	1 - 8	8 - 1	8 - 1	16	Rear only (plain sides)

* Product available late 2017

NMX ACCESSORIES

CAT REF	PRODUCT	MODULE
NMXDR2	DIN Rail Insert	2
NMXBB2I	Comb Busbar	21
NMXLDK	Temporary Door Locking Device	-

PATTRESSES

CAT REF	PRODUCT
NMXPAT1618	18 Module Pattress
NMXPAT1622	22 Module Pattress

DUAL RCD - WITH KNOCKOUTS ALL SIDES

CAT REF	MS RATING	MS WAYS	RCD WAYS	RCD WAYS	TOTAL WAYS	KNOCKOUTS
NMXISS12	100A	-	2 - 6	6 - 2	12	All sides
NMXISS16*	100A	-	2 - 8	8 - 2	16	All sides

DUAL RCD - PLAIN SIDES

CAT REF	MS RATING	MS WAYS	RCD WAYS	RCD WAYS	TOTAL WAYS	KNOCKOUTS
NMXISS12P	100A	-	2 - 6	6 - 2	12	Rear only (plain sides)
NMXISS16P*	100A	-	2 - 8	8 - 2	16	Rear only (plain sides)

* Product available late 2017

NMX ACCESSORIES

CAT REF	PRODUCT	MODULE
NMXDR2	DIN Rail Insert	2
NMXBB2I	Comb Busbar	21
NMXLDK	Temporary Door Locking Device	-

PATTRESSES

CAT REF	PRODUCT
NMXPAT1618	18 Module Pattress
NMXPAT1622	22 Module Pattress

NM All Metal Consumer Units

NM1406L

NMRS10SSLMHI

MAIN SWITCH

CAT REF	MS RATING	WAYS
NM206/40	40A	2
NM206/63	63A	2
NM506L	100A	5
NM806L	100A	8
NM1106L	100A	11
NM1406L	100A	14
NM1906L	100A	19

FLEXIBLE MAIN SWITCH

CAT REF	MS RATING	WAYS
NM506FLEX	100A	5
NM806FLEX	100A	8
NM1106FLEX	100A	11
NM1406FLEX	100A	14
NM1906FLEX	100A	19

HIGH INTEGRITY

CAT REF	30mA RCD WAYS MCB	30mA RCD WAYS MCB	MS RATING	MS WAYS	TOTAL
NMRS23206L	2	3	100A	2	7
NMRS44206L	4	4	100A	2	10
NMRS43306L	4	3	100A	3	10
NMRS33406L	3	3	100A	4	10
NMRS76206L	7	6	100A	2	15
NMRS66306L	6	6	100A	3	15
NMRS46506L	4	6	100A	5	15
NMRS55506L	5	5	100A	5	15
NMRS45606L	4	5	100A	6	15

FLEXIBLE HIGH INTEGRITY

NMRS7SSLMHI	1 to 4	1 to 4	100A	1 to 4	7
NMRS10SSLMHI	2 to 5	2 to 5	100A	2 to 5	10
NMRS15SSLMHI	2 to 9	2 to 9	100A	2 to 9	15

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NM All Metal Consumer Units

NMRS12SLM

NMISS5506

SPLIT LOAD

CAT REF	RCD RATING	MCB WAYS	MS RATING	WAYS
NMRS2406L	80A 30mA	2	100A	4
NMRS3306L	80A 30mA	3	100A	3
NMRS4206L	80A 30mA	4	100A	2
NMRS5406L	80A 30mA	5	100A	4
NMRS4506L	80A 30mA	4	100A	5
NMRS3606L	80A 30mA	3	100A	6
NMRS6306L	80A 30mA	6	100A	3
NMRS3906L	80A 30mA	3	100A	9
NMRS4806L	80A 30mA	4	100A	8
NMRS6606L	80A 30mA	6	100A	6
NMRS5706L	80A 30mA	5	100A	7
NMRS7506L	80A 30mA	7	100A	5
NMRS8406L	80A 30mA	8	100A	4
NMRS9306L	80A 30mA	9	100A	3
NMRS12506L	80A 30mA	12	100A	5
NMRS11606L	80A 30mA	11	100A	6
NMRS10706L	80A 30mA	10	100A	7
NMRS61106L	80A 30mA	6	100A	11
NMRS71006L	80A 30mA	7	100A	10
NMRS9806L	80A 30mA	9	100A	8
NMRS8906L	80A 30mA	8	100A	9
NMRS51206L	80A 30mA	5	100A	12

FLEXIBLE SPLIT LOAD

CAT REF	RCD RATING	MCB WAYS MIN	MCB WAYS MAX	MS RATING	WAYS MIN	WAYS MAX	WAYS TOTAL
NMRS6SLM	80A 30mA	2	4	100A	2	4	6
NMRS9SLM	80A 30mA	3	6	100A	3	6	9
NMRS12SLM	80A 30mA	3	9	100A	3	9	12
NMRS17SLM	80A 30mA	5	12	100A	5	12	17

DUAL RCD 2x 80A 30mA RCD

CAT REF	MS WAYS	RCD 1 MCB WAYS	RCD 2 MCB WAYS	TOTAL No of MCB WAYS
NMISS3406L	-	3	4	7
NMISS4606L	-	4	6	10
NMISS5506L	-	5	5	10
NMISS8706L	-	7	8	15

FLEXIBLE DUAL RCD 2x 80A 30mA RCD

NMISS10SLM	-	6 Max	6 Max	10
NMISS15SLM	-	9 Max	9 Max	15

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NM All Metal Consumer Units

NMRS1106

NMSTM9SLM

RCD INCOMER

CAT REF	RCD RATING	MCB WAYS
NMRS206/40	40A 30mA	2
NMRS206/63	63A 30mA	2
NMRS506L	100A 30mA	5
NMRS806L	100A 30mA	8
NMRS1106L	100A 30mA	11
NMRM206/40	40A 100mA	2
NMRM206/63	63A 100mA	2
NMRM506L	100A 100mA	5
NMRM806L	100A 100mA	8
NMRM1106L	100A 100mA	11
NMTM506L	100A 100mA time delay	5
NMTM806L	100A 100mA time delay	8
NMTM1106L	100A 100mA time delay	11
NMTM1406L	100A 100mA time delay	14
MNTM1906L	100A 100mA time delay	19

SPLIT LOAD WITH TIME DELAY RCD INCOMER

CAT REF	RCD RATING	MCB WAYS	TD RCD RATING	WAYS
NMSTM2406L	80A 30mA	4	100A 100mA	2
NMSTM3306L	80A 30mA	3	100A 100mA	3
NMSTM3606L	80A 30mA	3	100A 100mA	6
NMSTM4206L	80A 30mA	2	100A 100mA	4
NMSTM4506L	80A 30mA	4	100A 100mA	5
NMSTM5406L	80A 30mA	5	100A 100mA	4
NMSTM6306L	80A 30mA	6	100A 100mA	3
NMSTM3906L	80A 30mA	3	100A 100mA	9
NMSTM4806L	80A 30mA	4	100A 100mA	8
NMSTM6606L	80A 30mA	6	100A 100mA	6
NMSTM7506L	80A 30mA	7	100A 100mA	5
NMSTM9306L	80A 30mA	9	100A 100mA	3
NMSTM8906L	80A 30mA	8	100A 100mA	9
NMSTM9806L	80A 30mA	9	100A 100mA	8
NMSTM71006L	80A 30mA	7	100A 100mA	10
NMSTM61106L	80A 30mA	6	100A 100mA	11
NMSTM51206L	80A 30mA	5	100A 100mA	12

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FLEXIBLE SPLIT LOAD (TIME DELAY)

CAT REF	RCD RATING	MCB WAYS		TD RCD	WAYS		WAYS
		MIN	MAX		MIN	MAX	TOTAL
NMSTM9SLM	80A 30mA	3	6	100A 100mA	3	6	9
NMSTM12SLM	80A 30mA	3	9	100A 100mA	3	9	12
NMSTM17SLM	80A 30mA	5	12	100A 100mA	5	12	17

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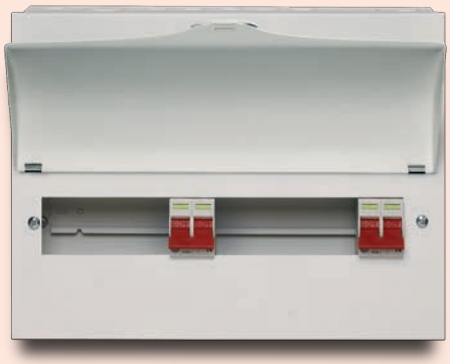
NM & Duplex All Metal Consumer Units



NMIIX4506

NMDIS1111

DUAL TARIFF 100A MAIN SWITCH & 100A MAIN SWITCH

CAT REF	MS RATING	WAYS	MS RATING	WAYS
NMIIX2406L	63A	2	100A	4
NMIIX3306L	100A	3	100A	3
NMIIX5406L	100A	5	100A	4
NMIIX4506L	100A	4	100A	5
NHIIX3906L	100A	3	100A	9
NHIIX4806L	100A	4	100A	8
NMIIX7506L	100A	7	100A	5
NMIIX6606L	100A	6	100A	6
NMIIX5706L	100A	5	100A	7
NMIIX9806L	100A	9	100A	8
NMIIX8906L	100A	8	100A	9
NMIIX51206L	100A	5	100A	12
NMIIX11606L	100A	11	100A	6

DUAL TARIFF 100A MAIN SWITCH & 100A 30mA RCD SWITCH

CAT REF	RCD RATING	MCB WAYS	MS RATING	WAYS
NMRSX5706L	100A 30mA	5	100A	7
NMRSX6606L	100A 30mA	5	100A	6
NMRSX7506L	100A 30mA	7	100A	5
NMRSX8906L	100A 30mA	8	100A	9
NMRSX9806L	100A 30mA	9	100A	8

SPLIT LOAD DUAL TARIFF 100A MAIN SWITCH & 100A 30mA RCD SWITCH

CAT REF	RCD RATING	MCB WAYS	MS RATING	WAYS
NMRS10SLMDT	100A 30mA	2-5	100A	2-5
NMRS15SLMDT	100A 30mA	2-5	100A	2-5

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SPLIT LOAD DUPLEX

CAT REF	TOP BANK MS RATING	TOP BANK WAYS	BOTTOM BANK RCD RATING	BOTTOM BANK MCB WAYS
NMDIS88	100A	8	80A 30mA	8
NMDIS1111	100A	11	80A 30mA	11
NMDIS1414	100A	14	80A 30mA	14
NMDIS1919	100A	19	80A 30mA	19

HIGH INTEGRITY DUPLEX 2 x RCDS, 1 x 100A MAIN SWITCH

CAT REF	80A 30mA RCD WAYS BOTTOM BANK	80A 30mA RCD WAYS BOTTOM BANK	80A 30mA RCD WAYS TOP BANK	MS WAYS	TOTAL
NMDRS14SSLHI	-	8	Flexi	Flexi	14
NMDRS20SSLHI	-	11	Flexi	Flexi	20
NMDRS26SSLHI	-	14	Flexi	Flexi	26
NMDRS36SSLHI	-	19	Flexi	Flexi	36

HIGH INTEGRITY DUPLEX 3 x RCDS, 1 x 100A MAIN SWITCH

CAT REF	80A 30mA RCD WAYS BOTTOM BANK	80A 30mA RCD WAYS BOTTOM BANK	80A 30mA RCD WAYS TOP BANK	MS WAYS	TOTAL
NMDRS12HI	Flexi	Flexi	Flexi	Flexi	12
NMDRS18HI	Flexi	Flexi	Flexi	Flexi	18
NMDRS24HI	Flexi	Flexi	Flexi	Flexi	24
NMDRS34HI	Flexi	Flexi	Flexi	Flexi	34

DUAL RCD DUPLEX 2 x RCDS, 100A MAIN SWITCH

CAT REF	BOTTOM BANK 80A 30mA RCD WAYS	BOTTOM BANK 80A 30mA RCD WAYS	TOP BANK 80A 30mA RCD WAYS	TOP BANK MS WAYS	TOTAL
NMDISS119	-	11	9	-	20
NMDISS1214	-	14	12	-	26

DUAL TARIFF DUPLEX

CAT REF	TOP BANK MS RATING	TOP BANK WAYS	BOTTOM BANK MS RATING	BOTTOM BANK WAYS
NMDIIX88	100A	8	100A	8
NMDIIX1111	100A	11	100A	11
NMDIIX1414	100A	14	100A	14
NMDIIX1919	100A	19	100A	19

CAT REF	MS RATING	WAYS	RCD RATING	MCB WAYS
NMDISX88	100A	8	80A 30mA	8
NMDISX1111	100A	11	80A 30mA	11
NMDISX1414	100A	14	80A 30mA	14
NMDISX1919	100A	19	80A 30mA	19

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Meter Cabinet Consumer Units - Metal Cased

FALNM806

FALNMISS7SLM

METAL CASED SKELETON UNITS - 273mm WIDE FIXING CENTRES

CAT REF	DESCRIPTION
Main Switch Metal Cased Skeleton Units	
FALNM806	Metal 8 way consumer unit 100A Fixed

Shroud extension from gland plate max 78mm min 14mm

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METAL CASED SKELETON UNITS - 320mm WIDE FIXING CENTRES

CAT REF	DESCRIPTION
Main Switch Metal Cased Skeleton Units	
FALNM1106	Metal 11 way consumer unit 100A Fixed
Split Load Metal Cased Skeleton Units	
FALNMRS5406	Metal Split Load consumer unit 5+4 Fixed
FALNMRS9SLM	Metal Split Load consumer unit 9 ways Flexible
High Integrity Metal Cased Units	
FALNMRS23206	7 Way High Integrity Consumer Unit 2+3+2 Fixed
FALNMRS7SSLMHI	7 Way High Integrity Consumer Unit Flexible
FALNMRS9SSLMHI	9 Way High Integrity Consumer Unit Flexible
Dual RCD Metal Cased Skeleton Units	
FALNMISS7SLM	Main Switch & Dual RCD Split 7 Way Flexible
FALNMISS9SLM	Main Switch & Dual RCD Split 9 Way Flexible
Dual Tariff Metal Cased Skeleton Units	
FALNMHIIX9DT	Dual Tariff 9 way Split Flexible

Shroud extension from gland plate max 78mm min 14mm

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Meter Cabinet Consumer Units - Metal Cased

F43NMRS10SSLHI

METAL CASED SKELETON UNITS - **430mm WIDE FIXING CENTRES**

CAT REF	DESCRIPTION
Main Switch Metal Cased Skeleton Units	
F43NM1406	Metal 14 way consumer unit 100A
Split Load Metal Cased Skeleton Units	
F43NMRS6606	Metal Split Load consumer unit 6+6 Fixed
F43NMRS12SLM	Metal Split Load consumer unit 12 ways Flexible
High Integrity Metal Cased Units	
F43NMRS44206	10 Way High Integrity Consumer Unit 4+4+2 Fixed
F43NMRS10SSLHI	10 Way High Integrity Consumer Unit Flexible
Dual RCD Metal Cased Skeleton Units	
F43NMISS10SLM	Main Switch & Dual RCD Split 10 Way Flexible
Dual Tariff Metal Cased Skeleton Units	
F43NMHIIX12DT	Dual Tariff 12 way Split Flexible

Shroud extension from gland plate max 78mm min 14mm

Consumer unit accessories pages 18-19

MICRO GENERATION CONSUMER UNITS

An off the shelf solution for reducing carbon footprints and bring benefits generation to individuals, small businesses & communities

This range caters for the requirements of DNO's through integral MID meters which are required to sell power back to the mains grid, and

Wylex Micro Generation PV Consumer Units comply with the relevant product standards and BS 7671 420.1.201 and are supplied fully equipped and ready to install

NM Micro Generation Consumer Units

NMB16MPV

NM15DSMPVF

PV CONSUMER UNIT

Metal metered consumer unit supplied with either Main Switch and 16A SP MCB or 16A RCBO with optional MID meter.

- 63A 320V AC DP Isolator
- 16A B Curve SP MCB
- 40A direct read MID Meter.
- Ready assembled consumer unit complete with MID Certified meter
- Combined unit simplifies and speeds up installation
- Complete with Isolator & MCB
- Easy read permanently displayed kWh reading
- Option available with RCBO or MCB

CAT REF.	DESCRIPTION
NMRCBO16BMPV	With DP 16A RCBO (with meter)
NMB16MPV	With SP 16A MCB (with meter)
NMRCBO16BPV	With DP 16A RCBO (no meter)
NMB16PV	With SP 16A MCB (no meter)

PV supplies should be connected to a dedicated circuit at the consumer unit (not share a final sub circuit)

PV supplies should be connected to the supply side of the MCB at the consumer unit (not reverse fed)

PV Meters must comply with MID2004/22/EC B&D or B&F

Note: Surge Protection devices and Type B RCDs are available on request

MAIN SWITCH DUAL SUPPLY PV CONSUMER UNIT WITH MID CERTIFIED GENERATION METER

CAT REF.	DESCRIPTION
NM15DSMPVF	15 Way unit with dual supply isolators & 16A SP MCB
NM10DSMPVF	10 Way unit with dual supply isolators & 16A SP MCB
NM14DSRCBMPVF	14 Way unit with dual supply isolators & 16A DP RCBO
NM9DSRCBMPVF	9 Way unit with dual supply isolators & 16A DP RCBO

NM Micro Generation Consumer Units

NM11DSMPVHI

NM13DSMPVSL

HIGH INTEGRITY DUAL SUPPLY PV CONSUMER UNIT WITH MID CERTIFIED GENERATION METER

CAT REF.	DESCRIPTION
NM11DSMPVHI	11 Way unit with dual supply isolators & 16A SP MCB
NM10DSRCBMPVHI	10 Way unit with dual supply isolators & 16A DP RCBO

HIGH INTEGRITY DUAL SUPPLY PV CONSUMER UNIT

NM12DSPVHI	12 Way unit with dual supply isolators & 16A SP MCB
NM11DSRCBPVHI	11 Way unit with dual supply isolators & 16A DP RCBO

Double Pole MCB options available on request

SPLIT LOAD DUAL SUPPLY PV CONSUMER UNIT WITH MID CERTIFIED GENERATION METER

CAT REF.	DESCRIPTION
NM13DSMPVSL	13 Way unit with dual supply isolators & 16A SP MCB
NM8DSMPVSL	8 Way unit with dual supply isolators & 16A SP MCB
NM12DSRCBMPVSL	12 Way unit with dual supply isolators & 16A DP RCBO
NM7DSRCBMPVSL	7 Way unit with dual supply isolators & 16A DP RCBO

DUAL RCD DUAL SUPPLY PV CONSUMER UNIT WITH MID CERTIFIED GENERATION METER

CAT REF.	DESCRIPTION
NM11DSMPVDR	11 Way unit with dual supply isolators & 16A SP MCB
NM6DSMPVDR	6 Way unit with dual supply isolators & 16A SP MCB
NM10DSRCBMPVDR	10 Way unit with dual supply isolators & 16A DP RCBO
NM5DSRCBMPVDR	5 Way unit with dual supply isolators & 16A DP RCBO

Double Pole MCB options available on request

NHDSMS

NHDC406006P **NHDC405004P**

COMBINATION DC & AC PV ISOLATOR

Two isolators DC & AC in a single enclosure that allows the installer to save time by comparison to other methods that utilise two separate enclosures. Class II construction.

- Available with or without local circuit protection devices (MCB, RCD or RCBO)
- Compact combined DC & AC Isolator in one enclosure
- Speeds up installation
- Securable in the Off position
- Robust metal enclosure with Knockout cable entries

CAT REF.	DESCRIPTION
NHDSMS	Dual Isolator
NHDS106B16	Dual Isolator with SP 16A MCB
NSPE-5359/15	Dual Isolator twin string 2 x DC & AC
NSPE-5359/12	Dual Isolator twin string 2 x DC & AC with SP 16A MCB

When circuit protection devices are provided at the inverter output, the installer must ensure that the characteristics of the protective device are suitable for the fault levels at that point in the circuit and will meet required disconnection times

PV supplies (DC & AC) must be arranged so that the converter can be isolated from both supplies for maintenance

DC ISOLATOR

DC Isolator in an all insulated enclosure with rotary handle and padlock locking Off facility.

- Multi Pole
- 25A, 32A, 40A
- 500V or 600V DC
- Insulated Enclosure
- Rotary Handle & padlock 'Off' facility
- DC - 21B utilization category

CAT REF.	DESCRIPTION
NHDC325004P	32A 500V 4 Pole
NHDC405004P	40A 500V 4 Pole
NHDC256006P	25A 600V 6 Pole
NHDC406006P	40A 600V 6 Pole

NM Micro Generation Switchgear & MID Meters

NHTPSD32

NHTPSD25

NHSPMTRA

NHSPMTRD

AC ISOLATOR

AC Isolator in an all insulated IP65 enclosure with rotary door interlock and padlock locking Off facility.

- Multi Pole
- 16, 25 or 32A, AC 21 & AC 23 rated
- 230V AC
- IP65 Enclosure
- Rotary Handle & padlock 'Off' facility

CAT REF.	DESCRIPTION
NHTPSD16	16A 230V AC 3 Pole
NHTPSD25	25A 230V AC 3 Pole
NHTPSD32	32A 230V AC 3 Pole

MID METERS IN ENCLOSURE

MID B&D certified meters c/w an IP40 insulated enclosure.

- Direct connected kWh meter
- Mechanical barell number or Liquid Crystal Display
- Pulsed output for BMS monitoring
- DIN Rail mounting

CAT REF.	DESCRIPTION
NHSPMTRA	1 Mod MID Meter (Analogue)
NHSPMTRD	1 Mod MID Meter (Digital)

Note: Surge Protection devices are available on request

For PV Installation Requirements see page xx.

NM Photo Voltaic Switchgear

NSPE-5359/11

NSPE-5359/10

NSPE-5580

COMBINATION DC & AC PV ISOLATOR WITH SUNCLIX PLUG IN CONNECTORS

A combination of DC and AC Isolators in a single enclosure. The DC Isolator(s) are connected to pre-wired Sunclix PV connectors that allows the installer to save even more time by comparison to other methods that utilise two separate enclosures. Class II construction.

- Available with or without local circuit protection devices (MCB, RCD or RCBO)
- Compact combined DC & AC Isolator in one enclosure
- Speeds up installation
- Outgoing Sunclix connections provided (no crimp tool required)
- Securable in the Off position
- Robust metal enclosure with Knockout cable entries

CAT REF.	DESCRIPTION
NSPE-5359/11	Dual Isolator with SP 16A MCB
NSPE-5359/10	Dual Isolator twin string 2 x DC & AC with SP 16A MCB

When circuit protection devices are provided at the inverter output, the installer must ensure that the characteristics of the protective device are suitable for the fault levels at that point in the circuit and will meet required disconnection times

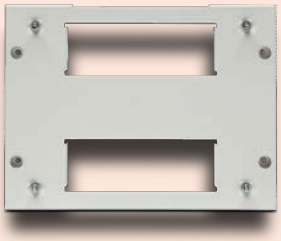
PV supplies (DC & AC) must be arranged so that the converter can be isolated from both supplies for maintenance

PV- DC TYPE B RCD IN ENCLOSURE

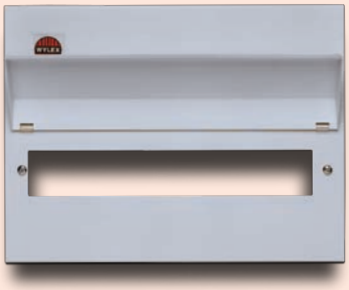
CAT REF.	DESCRIPTION
NSPE-5579	16A 30mA DP RCD
NSPE-5580	40A 30mA DP RCD
NSPE-5581	40A 300mA DP RCD

NM Consumer Unit Accessories

FLUSH KIT



PATTRESS



UPGRADE COVER

TIME DELAYED RCCB

FLUSH MOUNTING KITS FOR NM

CAT REF	PRODUCT
NM07FLA	7 module flush kit assembly
NM10FLA	10 module flush kit assembly
NM13FLA	13 module flush kit assembly
NM16FLA	16 module flush kit assembly
NM21FLA	21 module flush kit assembly

For use on upgrading NM metal units only

Not suitable for meter cabinet units

NM CONSUMER UNIT PATTRESSES

CAT REF TOP/BOTTOM	LEFT/RIGHT CABLE ENTRY	ENCLOSURE WIDTH	DEPTH
MNSPE-6462/BNR	MNSPE6668/7NR	7 Module	16mm
MNSPE-6462/CNR	MNSPE6668/10NR	10 Module	16mm
MNSPE-6462/DNR	MNSPE6668/13NR	13 Module	16mm
MNSPE-6462/ENR	MNSPE6668/16NR	16 Module	16mm
MNSPE-6462/FNR	MNSPE6668/21NR	21 Module	16mm

For use with NM consumer units. Allows surface cable entry through rear knockouts and automatically maintains enclosure IP rating to comply with BS7671 and BSEN61439-3

• Cable entry slot may be positioned top or bottom, or left/right

Not suitable for meter cabinet units

NH UPGRADE / REPLACEMENT COVER

CAT REF	PRODUCT
NH7/MCLA255G	7 module cover assembly
NH10/MCLA255G	10 module cover assembly
NH13/MCLA255G	13 module cover assembly
NH16/MCLA255G	16 module cover assembly
NH21/MCLA255G	21 module cover assembly

For use on upgrading existing NH metal units only (replacing cover, plastic visor and hinges). Colour Grey RAL 7035

TIME DELAYED (S TYPE) RCCB AND ENCLOSURE

CAT REF	PRODUCT
P.O.A	100A 100mA time delay RCCB

Products made to order. Contact Wylex technical

Also see data on page XX, items (A) & (B)

Consumer Unit Accessories for NMX & NM Units

EIU NMCE1

INTUMESCENT STRIPS

CAT REF	PRODUCT	CONSUMER UNIT	WIDTH
NMFS07	Intumescent fire barrier	7MOD	188mm
NMFS10	Intumescent fire barrier	10MOD	241mm
NMFS13	Intumescent fire barrier	13MOD	292mm
NMFS16	Intumescent fire barrier	16MOD	343mm
NMFS21	Intumescent fire barrier	21MOD	438mm

Application guidance covering the full consumer unit range is available from Wylex Technical Department

NON COMBUSTIBLE BLANK

CAT REF	PRODUCT	MODULE
NMMB	Metal blanking plate - Twist fit	1

CABLE ENTRY ACCESSORIES

MAINS TAILS GLAND

CAT REF	PRODUCT
EIU	Moulded cable gland kit for metal consumer unit to provide additional support and supplementary insulation similar to Class II construction for the incoming cables. Suitable for 16mm^2 or 25mm^2 double insulated cable and 16mm^2 earth cable 32mm knockout
NMTG32	Moulded cable gland kit for metal consumer unit to provide additional support and supplementary insulation similar to Class II construction for the incoming cables. Suitable for 16mm^2 or 25mm^2 double insulated cable and 16mm^2 earth cable 32mm knockout

As recommended in the IET On Site Guide

FIRE RETARDENT MEMBRANE CABLE ENTRIES

CAT REF	PRODUCT
NMCE1	Membrane cable entries kit 1 3 x 32mm & 7 x 20mm
NMCE2	Membrane cable entries kit 2 10 x 20mm

WYLEX MINIATURE RCBOs

WITH SWITCHED NEUTRAL AS STANDARD

A range of MCB sized RCBOs for use in domestic household premises and similar installations.

Wylex miniature RCBOs bring higher levels of safety to an electrical installation and its users because they include switched neutral as standard and bring cost savings by reducing installation and testing times.

Safer installations means safer homes
Wylex Miniature RCBOs with switched neutral built in as standard will fully isolate a faulty or damaged circuit by disconnecting live and neutral conductors.

Using Wylex Miniature RCBOs will guarantee that healthy circuits remain in service and that only a faulty circuit is switched off. This avoids danger and prevents inconvenience in the event of a fault (as required by regulation 314.1)*.

Miniature RCBOs take up less space in the consumer unit and so provide more wiring space for the installer, making the installation process easier and quicker.

Wylex RCBOs go one step further, they have switched neutral built in as standard, live and neutral conductors do not have to be disconnected for insulation resistance testing. This saves time and money, particularly for responsible landlords who regularly test installations during occupancy voids.

ACTUAL SIZE

*** BS 7671 IET Wiring Regulations**

NHXS MINIATURE RCBO (MCB sized 1 module with switched neutral)

B CURVE	C CURVE	CURRENT RATING	RCD RATING	POLES	MODULES
NHXS1B06	NHXS1C06	6A	30mA	2	1
NHXS1B10	NHXS1C10	10A	30mA	2	1
NHXS1B16	NHXS1C16	16A	30mA	2	1
NHXS1B20	NHXS1C20	20A	30mA	2	1
NHXS1B25	-	25A	30mA	2	1
NHXS1B32	NHXS1C32	32A	30mA	2	1
NHXS1B40	NHXS1C40	40A	30mA	2	1

• Type A - Pure AC and pulsating DC sensitivity

WRCBL MINIATURE RCBO (MCB sized 2 module with switched neutral)

B CURVE	C CURVE	CURRENT RATING	RCD RATING	POLES	MODULES
WRCBL45B2	WRCBL45C2	45A	30mA	2	2
WRCBL50B2	WRCBL50C2	50A	30mA	2	2

• Type A - Pure AC and pulsating DC sensitivity

NHXL MINIATURE CIRCUIT BREAKERS (6kA)

B CURVE	C CURVE	CURRENT RATING	POLES	MODULES
-	NHXLC03	3A	1	1
NHXLB06	NHXLC06	6A	1	1
NHXLB10	NHXLC10	10A	1	1
NHXLB16	NHXLC16	16A	1	1
NHXLB20	NHXLC20	20A	1	1
NHXLB25	-	25A	1	1
NHXLB32	NHXLC32	32A	1	1
NHXLB40	NHXLC40	40A	1	1
NHXLB50	NHXLC50	50A	1	1

Consumer Unit Accessories

MESB-40NO

DIN RAIL MODULAR DEVICES FOR USE IN + UNITS & FLEXIBLE UNITS

CAT REF	PRODUCT	MODULE
ME242/230	Staircase timer	1
SMSCD11	Digital time clock 1 channel 1xNO/NC contact 16A	1
TMSCD21	Digital time clock 1 channel 1xNO contact 16A	2
TMTCD22	Digital time clock 2 channel 24 hour 7Day prog	2
MESB-20NO	20A 2 pole contactor	1
MESB-24NO	24A 4 pole contactor	2
MESB-40NO	40A 4 pole contactor	3
MESB-63NO	63A 4 pole contactor	3
MTS8	Bell transformer 12V 8VA	2
TRMSCT31	Disc type time clock 1 channel 1xNC contact 16A	3
TRMSCT11	Disc type time clock 1 channel 1xNC contact 16A	3
SMSCT11	Disc type time clock 1 channel 1xNO contact 16A	1

When fitting in NM Consumer Units contact Wylex technical services department

Requires DIN Rail Clip (NMXDR2) when fitting into NMX consumer unit

NM ACCESSORIES

CAT REF	PRODUCT	MODULE
NMMB	Metal blanking plate - Twist fit	1
NHB1PP	Blanking plate - Busbar & cover	1
NH00PP	Blanking plate - Twist fit	1
NHET25	25mm Earth Terminal	-
NMLDK	Angled visor locking kit	
NMTLK2	Curved visor locking kit	
MCBLDX	MCB locking device	
WPL	Padlock for NHLDK & MCBLDX	
NH13CBKIT	13 pin comb busbar c/w labels and 5 protection covers	

Retrofit Consumer Unit MCBs & RCBOs

NHXB06 NHXB16 NHXB32 NHXB50
NHXB10 NHXB20 NHXB40

NHXSBS1B06 NHXSBS1B16 NHXSBS1B32 NHXSBS1B50
NHXSBS1B10 NHXSBS1B20 NHXSBS1B40

MINIATURE CIRCUIT BREAKERS (6kA)*

B CURVE	C CURVE	RATING	POLES	MODULES
NHXB06	NHXC06	6A	1	1
NHXB10	NHXC10	10A	1	1
NHXB16	NHXC16	16A	1	1
NHXB20	NHXC20	20A	1	1
NHXB32	NHXC32	32A	1	1
NHXB40	NHXC40	40A	1	1
NHXB50	NHXC50	50A	1	1

ACCESSORIES

MCBLDX	MCB Locking device
WPL	Padlock for MCBLDX

*** For fixed balcony connection consumer units NM/NH**

NHXSBS RCBO (combined MCB/RCD device)*

B CURVE	C CURVE	CURRENT RATING	RCD RATING	POLES	MODULES
NHXSBS1B06	NHXSBS1C06	6A	30mA	1	1
NHXSBS1B10	NHXSBS1C10	10A	30mA	1	1
NHXSBS1B16	NHXSBS1C16	16A	30mA	1	1
NHXSBS1B20	NHXSBS1C20	20A	30mA	1	1
NHXSBS1B32	NHXSBS1C32	32A	30mA	1	1
NHXSBS1B40	NHXSBS1C40	40A	30mA	1	1
NHXSBS1B50	NHXSBS1C50	50A	30mA	1	1
-	WRCBL6C2+	6A	30mA	2	2
-	WRCBL10C2+	10A	30mA	2	2
-	WRCBL16C2+	16A	30mA	2	2
-	WRCBL20C2+	20A	30mA	2	2
-	WRCBL32C2+	32A	30mA	2	2
-	WRCBL40C2+	40A	30mA	2	2

+ Suitable for flexible comb busbar consumer units only

*** For fixed balcony connection consumer units NM/NH**

Type A devices

ARC FAULT DETECTION DEVICES (AFDDs)

Arc fault detection devices offer extremely effective protection against fires that are started by electrical faults. Typically these occur at loose connections, in damaged cables, in crushed cables or where insulation is aged and allows current to leak between conductors.

AFDDs detect electrical faults that MCBs, RCDs and RCBOs cannot detect.

Arching faults generally fall into one of three types:

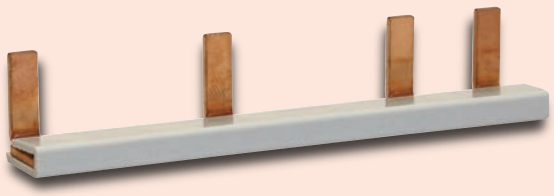
Serial arcing faults:
These are typically caused by a loose connection in the circuit or a damaged conductor. In this arc fault condition current flow is always lower than the operational load current. Miniature Circuit Breakers and Residual Current protective devices will not detect these electrical faults.

Parallel arcing faults between phase/neutral conductor or phase/phase conductor:
These are caused by electric arcs resulting from damage to the insulation that permits minimum contact between the two live conductors. MCBs or RCBOs may trip depending on the magnitude of the fault current. However AFDDs are extremely sensitive and will disconnect parallel arcing faults greater than 2.5A

Parallel arcing faults between phase or neutral/protective conductor:
AFDDs will detect arcing faults against the protective conductor and provide adequate fire protection where no residual current protective device is implemented. However these AFDDs are combined with 30mA Miniature RCBOs that reliably detect and shut down this type of parallel arc fault.

The combined use of AFDD and Miniature RCBO provides the highest levels of protection for the installation and its users.

AFDD Units



COMBINED RCBO AFDD

B CURVE	C CURVE	CURRENT RATING	RCD RATING	POLES	MODULES
TBA	TBA	6A	30mA	2	2
TBA	TBA	10A	30mA	2	2
TBA	TBA	16A	30mA	2	2
TBA	TBA	20A	30mA	2	2
TBA	TBA	25A	30mA	2	2
TBA	TBA	32A	30mA	2	2
TBA	TBA	40A	30mA	2	2

AFDD FLEXIBLE BUSBAR

CAT REF	DESCRIPTION
TBA	1W AFDD
TBA	2W AFDD
TBA	3W AFDD
TBA	4W AFDD
TBA	5W AFDD
TBA	6W AFDD
TBA	7W AFDD
TBA	8W AFDD
TBA	9W AFDD

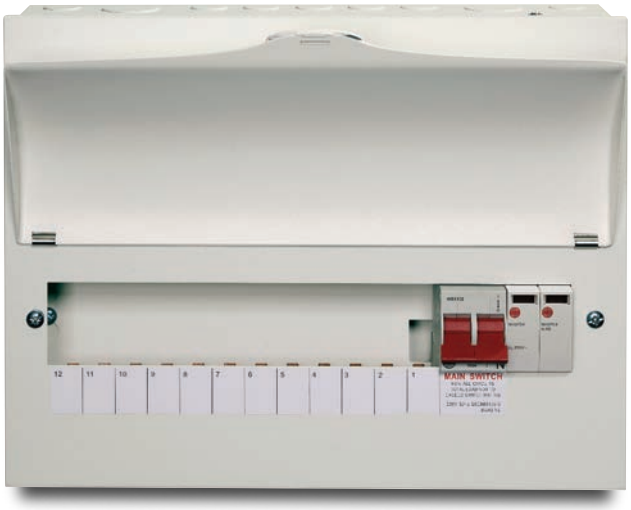
AFDD NMX BUSBAR

CAT REF	DESCRIPTION
TBA	1W AFDD
TBA	2W AFDD
TBA	3W AFDD
TBA	4W AFDD
TBA	5W AFDD
TBA	6W AFDD
TBA	7W AFDD
TBA	8W AFDD
TBA	9W AFDD
TBA	10W AFDD

SURGE PROTECTED CONSUMER UNITS OFFER AN OFF THE SHELF SOLUTION FOR OVER VOLTAGE PROTECTION

Chapter 44 of the IET wiring regulations allows the selection of surge protection devices to protect against over voltage disturbances from specific causes of atmospheric origin (lightning strikes) or due to switching.

Protection against transient overvoltage's due to direct or nearby lightning strikes on the structure is covered by BS EN 62305-2. Even though protection against over voltages of atmospheric origin is deemed not necessary, additional Surge protection against switching transient over voltage's may still need to be provided.



Transient overvoltage protection shall be used where the consequences of the over voltage affects:

1. Human life
2. Public Services and cultural heritage
3. Commercial or Industrial activity
4. A larger number of individuals

For all other cases a risk assessment shall be performed to regulation 443.5.
If the risk assessment is not carried out the electrical installation shall be provided with transient Surge Protection, unless the total value of the installation and electrical equipment within a single dwelling doesn't justify the additional cost of supplying surge protection.

Type 1 Lightning Arresters

NHSPD4123T1

3 CONDUCTOR SYSTEM; L, N, PE

LIST NO.	DESCRIPTION
NHSPD4123T1	2 mod DIN mounting SPD with remote indication contact

TN-S/TT
Single Phase Supply - Separate Protective Earth & Neutral

Type 1 Lightning Arresters are installed at an electrical installations intake position in conjunction with an external Lightning Protection System. These devices have a high impulse current withstand (10/350µs) associated with direct lightning strikes.

Surge and lightning arresters have a lifespan directly related to the number and magnitude of their operations.

All Wylex devices provide visual life status indication.

The plug in unit must be removed during installation insulation resistance testing.

Type 2 Surge Arresters

NHSPD4621T2

3 CONDUCTOR SYSTEM; L, N, PE

LIST NO.	DESCRIPTION
NHSPD4621T2	2 conductor system; L, N / PEN

TN-S/TT
Single Phase Supply - Separate Protective Earth & Neutral

Type 2 Surge Arresters provide protection against overvoltage originating from switching and the secondary effects of lightning strikes. These devices will discharge current having an 8/20µs waveform and provide a low voltage protection level of ≤1.5kV (Up) for sensitive electronic equipment exceeding the requirements for category II equipment identified within table 44.3 (BS7671).

Surge and lightning arresters have a lifespan directly related to the number and magnitude of their operations.

All Wylex devices provide visual life status indication.

The plug in unit must be removed during installation insulation resistance testing.

Type 1+2 Surge Arresters

Replacement Surge Arrester Plugs

NHSPD4421T12

3 CONDUCTOR SYSTEM; L, N, PE

LIST NO.	DESCRIPTION
NHSPD4421T12	4 mod DIN mounting SPD with remote indication contact

TN-S/TT
Single Phase Supply - Separate Protective Earth & Neutral

REPLACEMENT PLUGS

LIST NO.	DESCRIPTION
NHSPD4182T1	**T1 N-PE GDT plug 50kA** NHSPD4123T1 NHSPD4143T1
NHSPD4183T1	**T1 L-N varistor plug 12.5kA** NHSPD4123T1 NHSPD4143T1
NHSPD4481T12	**T1 L-N spark gap plug 25kA** NHSPD4421T12 NHSPD4441T12
NHSPD4281T12	**T2 L-N varistor plug 20kA** NHSPD4421T12 NHSPD4441T12
NHSPD4180T12	**T1 N-PE spark gap plug 100kA** NHSPD4421T12 NHSPD4441T12
NHSPD4681T2	**T2 L-N varistor plug 20kA** NHSPD4641T2 NHSPD4621T2
NHSPD4880T2	**T2 N-pe GDT plug 20kA (12.5kA)** NHSPD4621T2 NHSPD4641T2

Type 1+2 Surge Arresters combine the benefits of both type 1 and type 2 having both high impulse current withstand (10/350µs) associated with direct lightning strikes and a low voltage protection level of ≤1.5kV (Up) exceeding the requirements for category II equipment identified within table 44.3 (BS7671).

Surge and lightning arresters have a lifespan directly related to the number and magnitude of their operations.

All Wylex devices provide visual life status indication.

The plug in unit must be removed during installation insulation resistance testing.

Surge and lightning arresters have a lifespan directly related to the number and magnitude of their operations.

All Wylex devices provide visual life status indication.

The plug in unit must be removed during installation insulation resistance testing.

NM13ED6

ESE2 ESE4 ESM6 ESM8

NM METAL DIN ENCLOSURES

CAT REF.	DESCRIPTION
NM4ED6	4 modules
NM7ED6	7 modules
NM10ED6	10 modules
NM13ED6	13 modules
NM16ED6	16 modules
NM21ED6	21 modules

Supplied with earth & neutral terminal bars cover and visor

DIN ENCLOSURES

CAT REF. INSULATED	CAT REF. METAL	DIN MODULES	IP RATING
ESE2	ESM6	2	IP40
ESi2S	-	2	IP40
ESE2L*	-	2	IP40
-	ESM7	2	IP54
ESE4	-	4	IP20
ESi4	ESM8	4	IP40
-	ESM11	4	IP54
-	ESM13**	4	IP54

* Supplied with earth connection link
** Enclosure for larger cables

WBE4/NK installed in WBE4

IP65 DIN ENCLOSURES AND ACCESSORIES

CAT REF.	DESCRIPTION
WBE3	2/3 module enclosure
WBE4	4 module enclosure
WBE3/EK	Earth block
WBE3/NK	Neutral block
WBE4/EK	Earth block
WBE4/NK	Neutral block
WBE/BS	Blanks

Plastic enclosures - not recommended for use in domestic household premises

LIFELINE RCCB RANGE

Residual Current Circuit Breakers are a critical device that help installers meet the requirements of the BS 7671 IET Wiring Regulations, BS 7671 prescribes the circumstances under which additional protection is necessary.

These RCCBs and enclosures are ideal for installations with an existing consumer unit that is not being replaced but additional circuits need to meet current regulations.

One of the largest ranges available in the UK today offers other features which include:-

- Fully shrouded terminals
- Contact position indication on the dolly handle
- Both AC and Type A (DC sensitive) devices available to meet the requirements of the 18th Edition
- A range of enclosures from IP20 up to IP65
- Time delay versions available in 2 and 4 pole configurations

Lifeline RCCB Range

WRS32/2 WRS80/2

WRS100/2 WRM100/2

WRS63/4

WRMT100/4

2 POLE RCDs – TYPE AC

CAT REF.	RATED CURRENT	SENSITIVITY
WRS16/2	16A	30mA
WRS25/2	25A	30mA
WRS32/2	32A	30mA
WRS40/2	40A	30mA
WRM40/2	40A	100mA
WRS63/2	63A	30mA
WRM63/2	63A	100mA
WRL63/2	63A	300mA
WRS80/2	80A	30mA
WRM80/2	80A	100mA
WRS100/2	100A	30mA
WRM100/2	100A	100mA
WRL100/2	100A	300mA

2 POLE RCDs DC SENSITIVE – TYPE A

CAT REF.	RATED CURRENT	SENSITIVITY
WRDVS32/2	32A	10mA
WRDS40/2	40A	30mA
WRDM40/2	40A	100mA
WRDS63/2	63A	30mA
WRDS80/2	80A	30mA
WRDS100/2	100A	30mA
WRDM100/2	100A	100mA

NSBS RCBO (combined MCB/RCD device)

C CURVE	CURRENT RATING	RCD RATING	POLES	MODULES
WRCBX6C2	6A	30mA	2	2
WRCBX10C2	10A	30mA	2	2
WRCBX16C2	16A	30mA	2	2
WRCBX20C2	20A	30mA	2	2
WRCBX32C2	32A	30mA	2	2
WRCBX40C2	40A	30mA	2	2

4 POLE RCDs – TYPE AC

CAT REF.	RATED CURRENT	SENSITIVITY
WRS32/4	32A	30mA
WRS40/4	40A	30mA
WRM40/4	40A	100mA
WRS63/4	63A	30mA
WRM63/4	63A	100mA
WRL63/4	63A	300mA
WRS100/4	100A	30mA
WRM100/4	100A	100mA
WRL100/4	100A	300mA

4 POLE RCDs DC SENSITIVE – TYPE A

CAT REF.	RATED CURRENT	SENSITIVITY
WRDS40/4	40A	30mA
WRDM40/4	40A	100mA
WRDS63/4	63A	30mA
WRDM63/4	63A	100mA
WRDS100/4	100A	30mA
WRDM100/4	100A	100mA

TIME DELAY UNITS (100ms) TYPE S

CAT REF.	DESCRIPTION	RATED CURRENT	SENSITIVITY
WRMT100/2	2P	100A	100mA
WRMT100/4	4P	100A	100mA

TYPE B DC SENSITIVE RCD

CAT REF.	DESCRIPTION
NSPE-5579	16A 30mA DP RCD
NSPE-5580	40A 30mA DP RCD
NSPE-5581	40A 300mA DP RCD

DOMESTIC SWITCH FUSE

Wylex Domestic Switch Fuse units are fully enclosed in non combustible material to meet the requirements of BS 7671 IET Wiring Regulations 421.1.201 for consumer units and similar switchgear.

Designed for stand alone applications or for conversion projects where a large building is being converted to several apartments these domestic switch fuse units are available in 60, 80 or 100A ratings and supplied complete with fuse.

All units have been designed and tested by Wylex engineers in the UK and fully meet the product standards and wiring regulations requirement.

Domestic Switch Fuse

ALL METAL SWITCH FUSE UNIT - FOR USE IN DOMESTIC HOUSEHOLD PREMISES

CAT REF		
DSF100M	Switch Fuse including fuse	100A
DSF80M	Switch Fuse including fuse	80A
DSF60M	Switch Fuse including fuse	60A
DSFNFM	Switch Fuse - Unfused	100A max.
EIU	Cable gland for meter tails	16/25mm^2
NMTG32	Cable gland for meter tails	16/25mm^2

Enclosed in a robust all metal enclosure

32mm diameter standard knock out for cable gland (top & bottom)

Metal door and robust metal enclosure, 1.0mm thick steel with low smoke & fume Epoxy paint finish

Live and Neutral cable capacity 16mm^2 min 35mm^2 max

16mm Earth terminating point inside enclosure

Replacement HRC Fuses
DSF40FL (40A) DSF45FL (45A) DSF50FL (50A)
DSF60FL (60A) DSF80FL (80A) DSF100FL (100A)

Lockable for safe isolation

Rotating fuse carrier for easy withdrawal

INSULATED SWITCH FUSE UNIT - FOR USE IN OTHER (NON DOMESTIC) PREMISES

CAT REF		
DSF100	Switch Fuse including fuse	100A
DSF80	Switch Fuse including fuse	80A
DSF60	Switch Fuse including fuse	60A
DSFNF	Switch Fuse - Unfused	100A max.

Bussman cartridge fuse included with device

Twin terminal screw connections

Live and Neutral cable capacity 16mm^2 min, 35mm^2 max

In built meter cable guides - clamps

Fuse cover inside carrier preventing accidental contact

Lockable switch mechanism for safe isolation

Replacement HRC Fuses
DSF40FL (40A) DSF45FL (45A) DSF50FL (50A)
DSF60FL (60A) DSF80FL (80A) DSF100FL (100A)

REC ENCLOSURE ISOLATORS

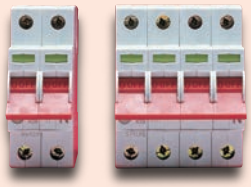
Wylex REC Isolators are installed between the meter and the consumer unit. Many meter operators install these switches as a convenient device to complete the meter installation process.

This provides a secure and convenient method for the electrical contractor to connect the consumer unit tails to the supply.

Many electrical contractors, local authorities and housing associations have standardised the installation of these REC Isolators when the consumer unit is changed. This makes provision for future works to be carried out quicker and safer than before.

REC Enclosed Isolators & DIN Rail Isolators

REC2S REC4



WS102 WS104

SUPPLY AUTHORITY TWIN TERMINAL ISOLATOR ASSEMBLIES

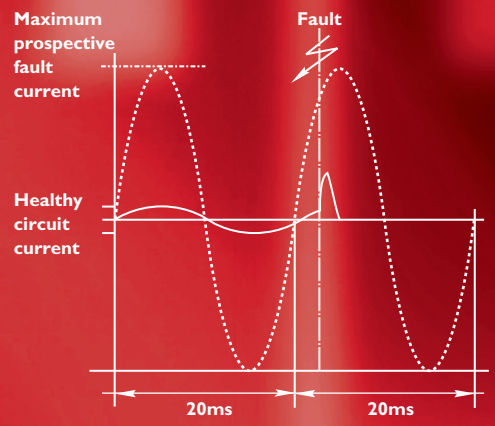
CAT REF.	DESCRIPTION	CURRENT RATING
REC2STT	DP Isolator Hex Socket Screw & 2 Mod Enclosure	100A
RECSW2S	DP Isolator Combi Screw & 2 Mod Enclosure	100A
RECSW3	TP Isolator Combi Screw & 4 Mod Enclosure	100A
RECSW4	4P Isolator Combi Screw & 4 Mod Enclosure	100A

A wide range of custom built variations is also available. Contact Wylex Technical for full details.

WS RANGE OF MODULAR ISOLATORS

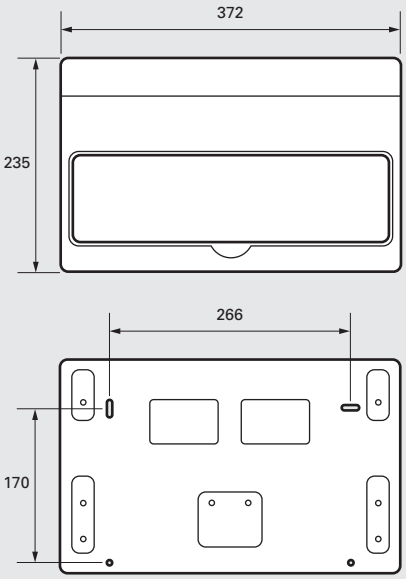
CAT REF.	DESCRIPTION	CURRENT RATING
WS601	1 Pole, 1 module	63A
WS101	1 Pole, 1 module	100A
WS121	1 Pole, 1 module	125A
WS602	2 Pole, 2 module	63A
WS102	2 Pole, 2 module	100A
WS122	2 Pole, 2 module	125A
WS603	3 Pole, 3 module	63A
WS103	3 Pole, 3 module	100A
WS123	3 Pole, 3 module	125A
WS604	4 Pole, 4 module	63A
WS104	4 Pole, 4 module	100A
WS124	4 Pole, 4 module	125A

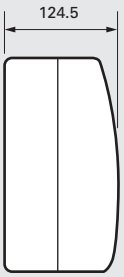
TECHNICAL DATA & DIMENSIONS



NMX Dimensions & Drawings

NMX METAL CONSUMER UNITS

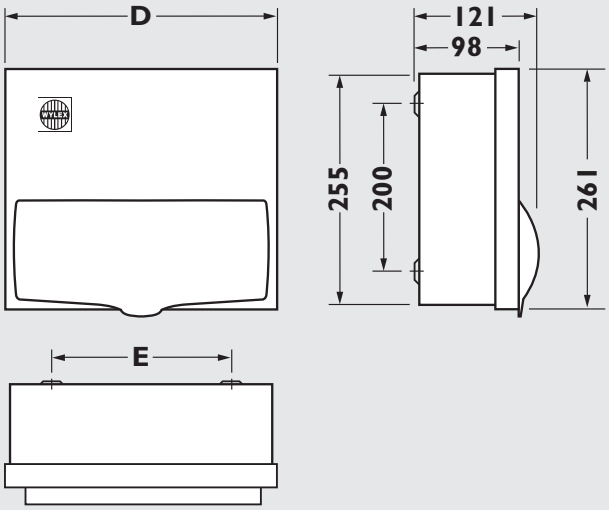




18 MODULE

NMX16	NMX16P	NMXRS14SL
NMXRS14SLP	NMXRS12SSLHI	NMXRS12SSLHIP
NMXISS12	NMXISS12P	

NM Metal Consumer Units - Dimensions



DIMENSIONS 185(H) 130(W) 104(D)

4 MODULE

NM206/40	NMRS206/40
NM206/63	NMRS206/63

DIMENSIONS D=188mm(7.4"), E=138mm(4.2")

7 MODULE

NM506L	NMRS506L
NMTM506L	NMRM506L
NM7ED6	NM506FLEX

DIMENSIONS D=241mm(9.5"), E=160mm(6.3")

10 MODULE

NMRM806L	NMRS4206L	NMSTM2406L
NM10ED6	NMRS6SLML	NMSTM3306L
NMRS2406L	NM806L	NMTM806L
NMRS3306L	NMRS806L	NM806FLEX

DIMENSIONS D=292mm(11.5"), E=210mm(8.3")

13 MODULE

NMRM1106L	NMIIX2406L	NMIIX3306L
NMSTM3606L	NMRS1106L	NMRS23206L
NM1106L	NMRS5406L	NMRS7SSLMHI
NMRS4506L	NM13ED6	NM1106FLEX
NMSTM5406L	NMSTM4506L	
NMRSS5406L	NMRS6306L	
NMRS9SLM	NMTM1106L	

DIMENSIONS D=343mm(13.5"), E=260.4mm(10.2")

16 MODULE

NM1406L	NMRS3906L	NMISS10SLM
NMRS4806L	NMSTM7506L	NMRS44206L
NMRS1406L	NMTM1406L	NMRS43306L
NMRS6606L	NMRS12SLM	NMRS33406L
NM16ED6	NMSTM8406L	NMRS10SSLMHI
NMRM1406L	NMISS5506L	NM1406FLEX

DIMENSIONS D=438mm(17.2"), E=356mm(10.1")

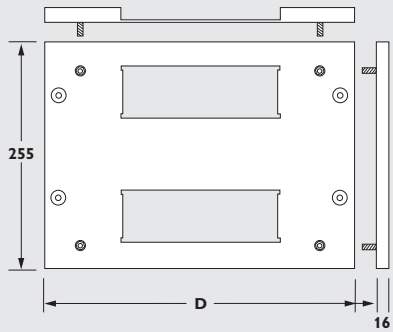
21 MODULE

NM1906L	NMRS1906L	NMISS15SLM
NMRS61106L	NMRS8906L	NMRS76206L
NMRS9806L	NMSTM71006L	NMRS66306L
NMRS17SLM	NMSTM9806L	NMRS46506L
NMSTM9806L	NMTM1906L	NMRS55506L
NM21ED6	NMIIX51206L	NMRS45606L
NMSTM8906L	NMIIX11606L	NMRS15SSLMHI
NM1906FLEX	NMISS8706L	

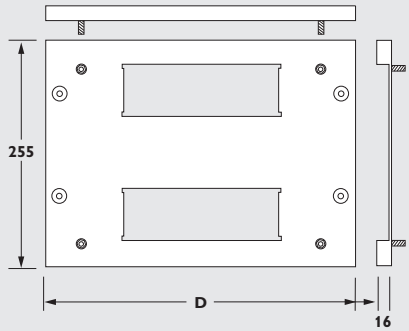
CABLE ENTRY PATTRESS

CONSUMER UNIT ENCLOSURE SIZE (D)		TOP/BOTTOM CABLE ENTRY	LEFT/RIGHT CABLE ENTRY
7 Module	188mm	MNSPE6463/BNR	MNSPE6668/7NR
10 Module	241mm	MNSPE6463/CNR	MNSPE6668/10NR
13 Module	282mm	MNSPE6463/DNR	MNSPE6668/13NR
16 Module	343mm	MNSPE6463/ENR	MNSPE6668/16NR
21 Module	438mm	MNSPE6463/FNR	MNSPE6668/21NR

TOP/BOTTOM CABLE ENTRY PATTRESS

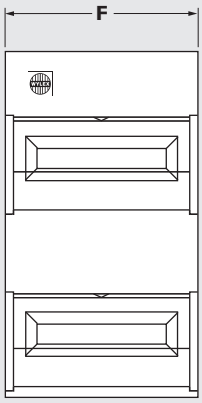


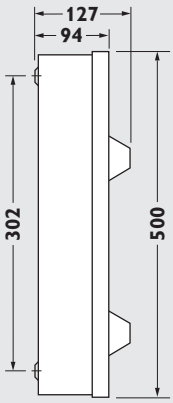
LEFT/RIGHT CABLE ENTRY PATTRESS

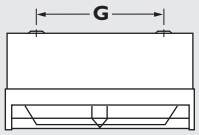


NM Metal Consumer Units - Dimensions

DUPLEX METAL







DIMENSIONS
F=241mm (9.5"), G=160mm (6.3")
10 MODULE

NHDIS88	NHDRS12HI
NHDIIX88	NHDRS14SSLHI
NHDISX88	

DIMENSIONS
F=292mm (11.5"), G=210mm (8.3")
13 MODULE

NHDIS1111	NHDRS18HI
NHDIIX1111	NHDRS20SSLHI
NHDISX1111	NHDISS119

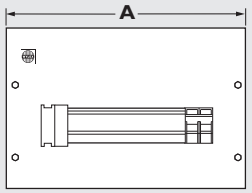
DIMENSIONS
F=343mm (13.5"), G=260mm (10.2")
16 MODULE

NHDIS1414	NHDRS24HI
NHDIIX1414	NHDRS26SSLHI
NHDISX1414	NHDISS1214

DIMENSIONS
F=430mm (17.2"), G=235mm (10.1")
21 MODULE

NHDIS1919	NHDRS34HI
NHDIIX1919	NHDRS36SSLHI
NHDISX1919	

SKELETON



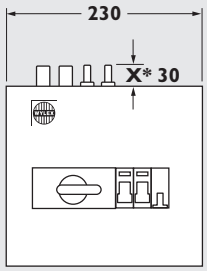
DIMENSIONS
A=333mm (13.2"), B=165mm (6.5"), C=90mm (3.5")
D=230mm (9")

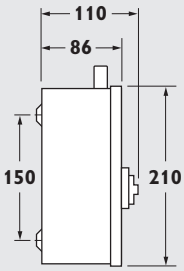
FALNHRS8SSL	FALNHISS5506
FALNHISS4606	FALNHISS10SL
FALNHRS10SL	FALNH806

DIMENSIONS
A=444mm (17.5"), B=165mm (6.5"), C=90mm (3.5")
D=230mm (9")

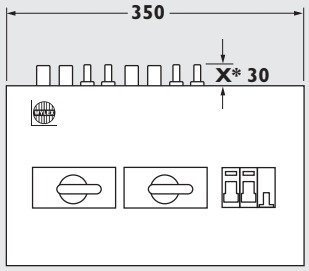
FALNHRS13SSL	FALNHISS8706	
FALNHISS15SL	FALNHRS46506	
FALNHRS55506	FALNHRS66306	
FALNHRS76206	FALNHRS15SL	FALN1206
FALNH1706		

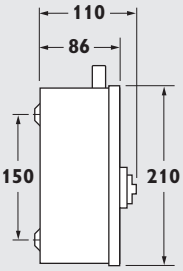
PV NH RANGE

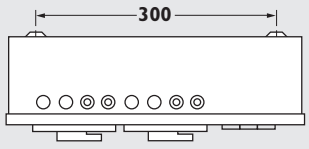




NHDSMS
NHDS106B16
NSPE-5359/11* dimension X applies

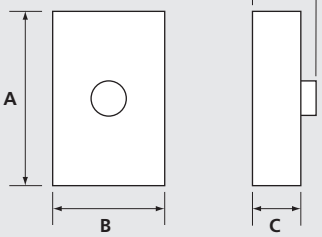






NSPE-5359/15
NSPE-5359/12
NSPE-5359/10* dimension X applies

PV AC ISOLATORS



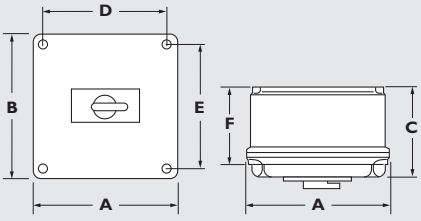
DIMENSIONS
A=130mm, B=85mm,
C=75mm, D=105mm

NHTPSD16
NHTPSD25

DIMENSIONS
A=175mm, B=125mm,
C=100mm, D=137mm

NHTPSD32

PV DC ISOLATORS



DIMENSIONS
A=160mm, B=160mm,
C=92mm, D=140mm,
E=140mm, F=69mm

NHDC325004P
NHDC405004P
NHDC256006P
NHDC406006P

STANDARDS

Consumer units Designed to BS5486 Part 13: 1989 Factory Built Assemblies BSEN60439-3 when fully assembled.
Degree of protection IP2X to BS EN60529. Switches BS5419. Double pole 240V 50Hz. Category of duty AC21 or BS EN 60947-3.
RCDs 30mA BS EN 61008. RCBOs 30mA BS EN 61009. MCBs B,C,D Switching Curve BS EN 60898.

Consumer Unit RCBO RCDs - Application Data

THE 17th EDITION WIRING REGULATIONS INCLUDING AMENDMENT 3

Under the latest 17th edition wiring regulations certain installations require "additional protection" on many MCB circuits that were not previously protected by the supplementary use of 30mA RCDs.

Extracts from the regulations and examples of these 'newly' protected RCD circuits are given in the summary table below.

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 **Plus any other sockets up to 20A rated**	**30mA RCD** Taking into account 3.14.1 **** 3.14.2 ****
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 **Plus Other circuits**	**30mA RCDs** Taking into account 3.14.1 **** 3.14.2 ****
522.6.101 522.6.102 522.6.103 and 560.7.1*****	All circuits buried in a wall or partition at less than 50mm and without mechanical protection	Downstairs Lighting Upstairs Lighting Immersion heater Smoke Alarms Burglar Alarm (Safety service) **Plus any other circuits**	**30mA RCD** Taking into account 3.14.1 **** 3.14.2 ****

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.

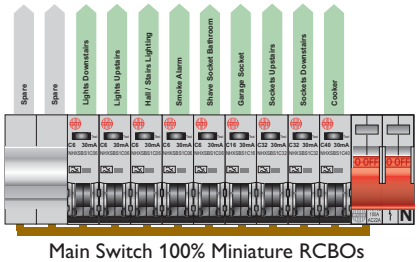
In addition Chapter 51 requires designers/installers to take account of all relevant British Standards and manufacturers instructions. For example BS5839 Part 6 is the British Standard for fire detection and alarm systems in dwellings. It states that power supplies to Grade D smoke alarms should be an 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.

TYPICAL APPLICATIONS

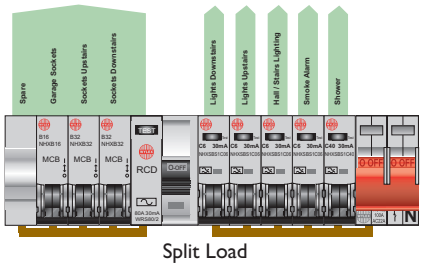
Regulation 421.1.201 requires consumer unit enclosures to be manufactured from non combustible material e.g. steel and comply with BS EN 61439-3

ALL INDEPENDENT CIRCUITS - with switched neutral RCBO



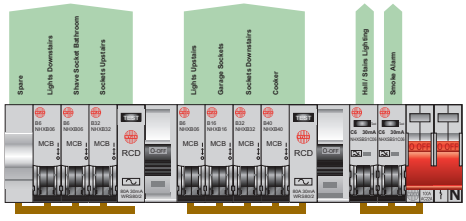
Main Switch 100% Miniature RCBOs

HALF INDEPENDENT CIRCUITS - with switched neutral RCBO



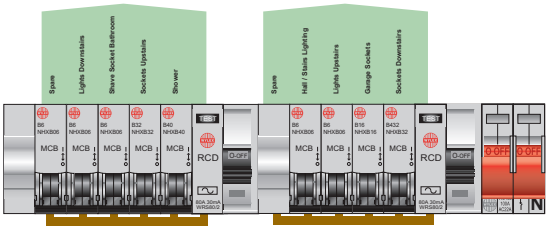
Split Load

SOME INDEPENDENT CIRCUITS - with switched neutral RCBO



High Integrity

NO INDEPENDENT CIRCUITS



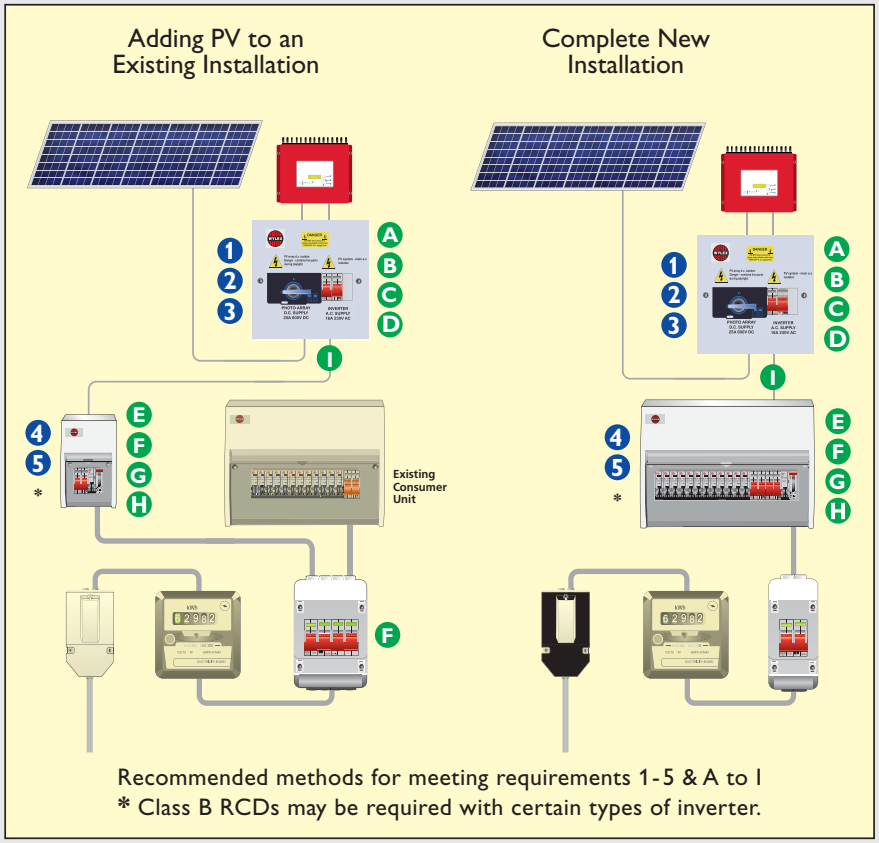
Dual RCD

30mA Earth leakage Protection - for illustrative purposes only

Cables with a power supply at each end need special considerations.
Using Two pole RCBOs on a dedicated circuit could be the simplest answer.

1. Circuit protection for both power supplies may be required (subject to inverter operating characteristics)
2. PV supplies with an RCD providing additional protection for the final circuit must be DP and disconnect Line and Neutral conductors (e.g. Double pole RCBO). Use of DP RCBOs may negate the need to take account of inverter shut down times
3. PV supplies require DC and AC Isolators so that the inverter can be isolated from both supplies for maintenance
4. PV supplies should be connected to a dedicated circuit at the consumer unit (not share a final sub circuit)
5. PV Meters must comply with MID2004/22/EC B&D or B&F

Typical Installation Diagrams



Class B RCDs & Surge Protection Devices also available

A 411.3.2.2
The maximum disconnection time shown in Table 41.1 applies to circuits not exceeding 32A. 0.4s TN System & 0.2s TT Systems.

B 551.4.1
Fault protection shall be provided for of each source of supply or combination of sources of supply.
(Also, refer to chapter 55, regulation group 551 - Low Voltage Generating Sets)

C 551.5.1
Over current protection should be located as near as practical to the generator terminals (where required).

D 712.537.2.1.1
To allow maintenance of the PV Inverter, means of isolating the PV inverter from the DC side and the AC side shall be provided.
(Also, refer to chapter 53, regulation group 537 - Isolation and Switching)

E 712.434.1
The PV supply cable (AC side) shall be protected against fault current by an overcurrent protective device installed at the connection to the AC mains. Also, refer to Part 7, all regulations in Section 712 - Solar Photovoltaic (PV) Power Supply Systems)

F 712.411.3.2.1.1
The PV Supply cable (on the AC side) shall be connected to the supply side of the protective device for automatic disconnection of circuits supplying current - using equipment.

G 314.1
Every installation shall be divided into circuits as necessary to: (ii) facilitate safe inspection testing & maintenance (vi) prevent the indirect energising of a circuit intended to be isolated.

H 314.4
In an installation comprising more than one final circuit, each final circuit shall be connected to a separate way in a distribution board.
The wiring of each final circuit shall be electrically separate from that of every other final circuit, so as to prevent the indirect energising of a final circuit intended to be isolated.

I 522.6.101 522.6.102 & 522.6.103
Installers must consider the need for Additional Protection by 30mA RCD in accordance with regulations (Previously 522.6.6 & 522.6.8) that relate to concealed cables in walls & partitions.

Isolation - Locked Consumer Units

Although Wylex in the past have offered a lockable consumer unit (access to the devices MCBs /RCBOs and Isolating Switch is covered by a lockable door); this unit can only be specified and used in certain mitigating circumstances for example power to fire alarm circuits is locked in the 'On' position (via interlocks) to ensure the safety circuit is never isolated unless authorised (via interlocking procedure).

Wylex's view on "lockable consumer units" is inline with good safety practice; in that you should object to locking power in an "On" position without the means of local isolation, especially in the case of an 'Emergency' to achieve immediate electrical shut down. The Main Switch / Isolator provided in a consumer unit is deemed the main isolation point for the installation and is automatically classed as the Emergency Switching point for isolating the complete installation in an crisis situation.

In the case of an emergency and the immediate need to isolate the power; if the Main Switch of the consumer unit can only be actuated (turned off) by obtaining a key (kept separate away from the unit) to unlock the door, to gain access to the switch, this can be interpreted by its numerous operations as against good safety practice.

Extracts from various regulations that support this view are as follows:-

BS 7671:2008 17th Edition wiring regulations: Incorporating amendment No3:2015

CHAPTER 13 FUNDAMENTAL PRINCIPLES

132.15.201 Effective means, suitably placed ready for operation, shall be provided so that all voltage may be cut off from every installation, from every circuit thereof and from all equipment, as may be necessary to prevent or remove danger.

537 ISOLATING AND SWITCHING

537.1.3 Each installation shall have the provision for disconnection from supply.

537.1.4 A main linked switch or linked circuit-breaker shall be provided as near as practicable to the origin of every of every installation as a means of switching the supply on load and as a means of isolation. A main switch intended for operation by ordinary persons, e.g. of a household or similar installation, shall interrupt both live conductors of a single-phase supply.

537.4 Emergency Switching

537.4.1.1 Means shall be provided for emergency switching of any part of an installation where it may be necessary to control the supply to remove an unexpected danger.

537.4.1.3 Means for emergency switching shall act as directly as possible on the appropriate supply conductors. The arrangement shall be that one single action only will interrupt the appropriate supply.

537.4.1.4 The arrangement of the emergency switching shall be such that its operation does not introduce a further danger or interfere with the complete operation necessary to remove the danger.

537.4.2.7 A device for emergency switching shall so be placed and durably marked so as to be readily identifiable and convenient for the intended use.

ELECTRICAL SAFETY COUNCIL: (ADVICE TAKEN FROM THEIR WEB SITE/ LITERATURE).

A consumer unit or fusebox is used to control and distribute electricity around our homes.

They usually contain:

A) Mains switch, B) Fuses or Circuit Breakers, C) Residual Current Device

Mains Switch

The mains switch allows you to turn off the electricity supply to your electrical installation. Some electrical installations have more than one mains switch, for example, if your home is heated by electric storage heaters, you may have a separate consumer unit (fuse box) for them. The consumer unit should be easy to get to, so find out where the mains switch is to turn the electricity off in an emergency.

LOCKING A CONSUMER UNIT TO STOP UNAUTHORISED ACCESS / ACTUATION OF THE PROTECTION DEVICES.

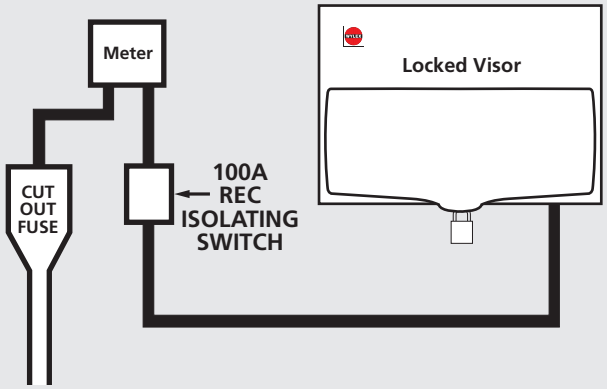
A request is sometimes made to lock the consumer unit because the installer / user don't want unauthorised access to switch devices 'On' and/or 'Off'. In this case, the isolation point to switch 'Off' the installation and Emergency Switching requirements still applies to the consumer unit and may be achieved in several ways. Wylex offer 3 cost effective options as follows:-

Option 1. Use a standard consumer unit with a MCB/ RCBO locking device and padlock on the individual outgoing circuits to lock in the 'On' or 'Off' position's. When locked in the 'On' position the MCB / RCBO will still 'trip' due to a fault condition on the circuit. (Note: you will need to open the padlock and remove the locking device to reset a tripped unit). The Main Switch Isolator is still accessible on the consumer unit to isolate the installation under emergency conditions.

Option 2. Have all the outgoing protection devices MCBs / RCBOs under a separate lockable door / cover to stop unauthorized access / operation of the individual circuits. The operation of the Main Switch Isolator is 'outside' of this lockable door / cover; via a protruding toggle switch or door interlocked rotary handle connected to the Main Switch Isolator. The operation of the Main Switch Isolator is still accessible / unhindered on the consumer unit to isolate the installation under emergency conditions.

Option 3. Have a lockable door on the complete consumer unit stopping unauthorised access to all the outgoing devices and Main Switch Isolator fitted into the unit. In this case, the Consumer unit must also be fed by a separate Isolation Point that is "still local" (near as practicable) to the consumer unit. This separate Isolation Device is used to isolate the installation under emergency conditions. This Isolation Point /Device should have easy access and is marked as the Emergency / Isolation Point for the particular consumer unit. The consumer unit should also be marked in a way to indicate the emergency isolation point is separate / next to the unit and not part of the consumer unit. In this case, because it is not intuitive that the Isolation Point is not within / accessible directly on this consumer unit; Instructions should be given to each user of the installation on how to isolate in emergency conditions using the separate Isolation Point device.

Typical arrangement with REC Isolating Switch



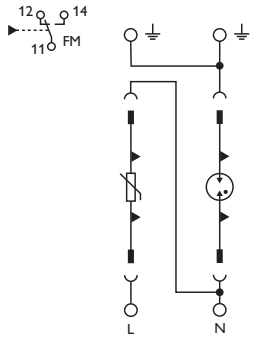
Type 1 + 2 Lightning / Surge Arresters Technical Data

Type 1 Lightning Arresters

- Plug-In Lightning Arresters
- Disconnect facility for each individual module
- Visual end of life indication for each module
- Remote Indication auxiliary contact
- Mechanical keying of all slots
- IEC61643-1 / EN61643-11
- DIN rail mounting
- Temperature Range -40… +80°C
- IP20
- Replacement plug in modules are available

NHSPD4123T1

Total width 35.8mm



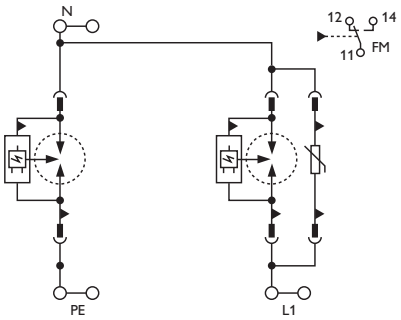
	NHSPD4123T1	
Protective system	TN-S / TT / TN-C L, N, PE	
Lightning protection level	III, IV	
Highest continuous voltage U_C	(L-N) 335 V a.c. 50/60 Hz	(N-PE) 264 a.c. 50/60 Hz
Nominal voltage U_N	240 V a.c. (230/400 V a.c. ... 240/415 V a.c.) 50/60 Hz	
Lightning test current I_{MP} (10/350) µs per path	(L-N) 12.5 kA / 6.25 As / 39 kJ/Ω	(N-PE) 50 kA / 25 As / 625 kJ/Ω
Nominal discharge surge current I_N (8/20) µs per path	(L-N) 12.5 kA	(N-PE) 50 kA
Maximum discharge surge current I_{MAX} (8/20) µs per path	(L-N) 50 kA	(N-PE) 50 kA
Protection level U_P	(L-N) ≤ 1.2 kV	(N-PE) ≤ 1.7 kV
U_{TOV} (withstand, 5 sec. (L-N)/withstand, 200 msec. (N-PE))	(L-N) 415 V a.c.	(N-PE) 1200 V a.c.
Short circuit resistance I_P with maximum backup fuse	25 kA_{MS}	
Maximum backup fuse	160 A gL/gG	
Ø minimum L, N, PE	1.5mm² (solid)	1.5mm² (stranded)
Ø maximum L, N, PE	35mm² (solid)	25mm² (stranded)

Type 1 + 2 Lightning / Surge Arresters

- Plug-In Lightning and Surge Arresters
- Disconnect device for each individual module
- Visual end of life indication for each module
- Remote Indication auxiliary contact
- Mechanical keying of all slots
- IEC61643-1 / EN61643-11
- DIN rail mounting
- Temperature Range -40… +80°C
- IP20
- Replacement plug in modules are available

NHSPD4421T12

Total width 71.6mm



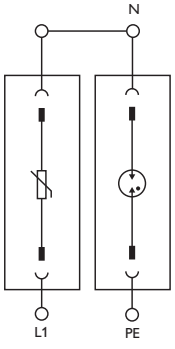
	NHSPD4421T12	
Protective system	TN-S / TT L1, N, PE	
Lightning protection level	III / IV, 50 kA	
maximum continuous operating voltage U_C	350 V a.c. 50/60 Hz	
Nominal voltage U_N	230/400 V a.c. ... 240/415 V a.c. 50/60 Hz	
Rated load current I_L	125 A (T_A = 55°C)	
Lightning peak current I_{MP} (10/350) µs	(L-N) 25kA	(N-PE) 100kA
Nominal discharge current I_N (8/20) µs	(L-N) 25kA	(N-PE) 100kA
Protection level U_P	≤ 1.5 kV	
Short circuit resistance with maximum backup fuse I_P	25 kA_{RMS}	
Follow current limitation	25 kA (264 V a.c.)	
Maximum back-up fuse	Application A: 125 A gL/gG	Application B: 315 A gL/gG
Ø minimum L, N, PE	2.5mm² (solid)	2.5mm² (stranded)
Ø maximum L, N, PE	35mm² (solid)	25mm² (stranded)

Type 2 Surge Arresters

- Plug-In Surge Arresters
- Disconnect facility for each individual module
- Visual end of life indication for each module
- Remote Indication auxiliary contact
- Mechanical keying of all slots
- IEC61643-1 / EN61643-11
- DIN rail mounting
- Temperature Range -40… +80°C
- IP20
- Replacement plug in modules are available

NHSPD4621T2

Total width 35.8mm

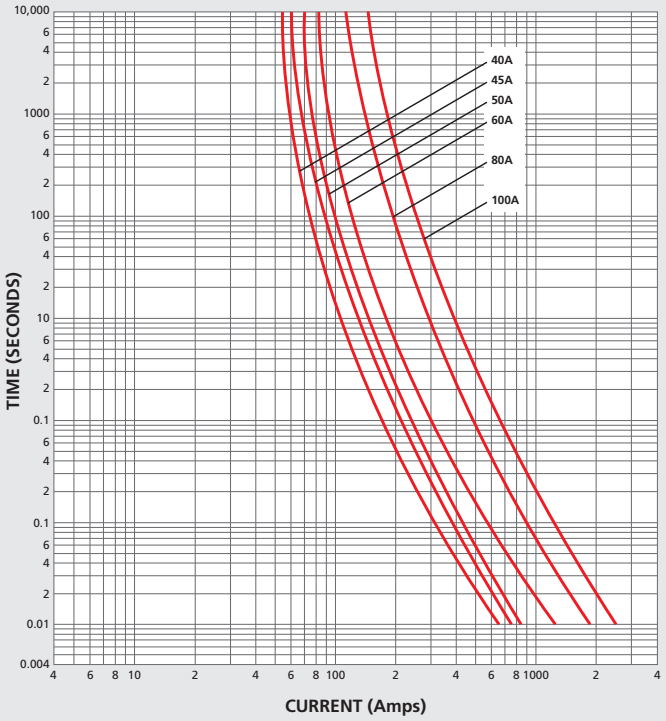


Connections found within Wylex consumer units.

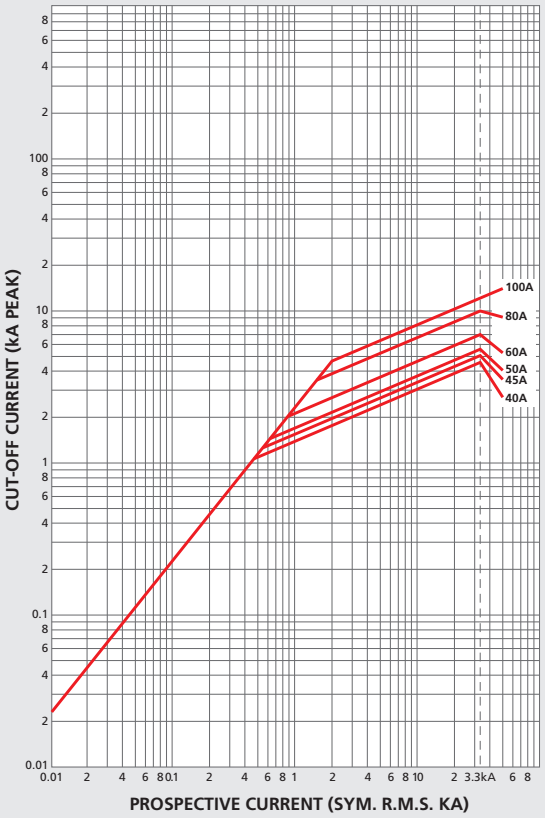
	NHSPD4621T2	
Protective system	TN-S / TT / TN-C / IT	
Rated surge arrester voltage U_C	L-N / L-PEN 350 V a.c.	N-PE 260 V a.c.
Nominal voltage U_N	230 ... 240 V a.c. 50/60 Hz	
Nominal discharge current I_N (8/20) µs	20 kA	
Maximum discharge current I_{MAX} (8/20) µs	40 kA	
Protection level U_P	≤1.4 kV	≤1.5 kV
Maximum backup fuse	125 A gL	-
Short circuit resistance I_P with max. backup fuse	25 kA_{rms}	-
Ø minimum L, N, PE	2.5mm² (solid)	2.5mm² (stranded)
Ø maximum L, N, PE	35mm² (solid)	25mm² (stranded)

Domestic Switch Fuse Units - Technical Data

TIME-CURRENT CURVE CHARACTERISTICS



CUT-OFF CURRENT CURVES



FUSE LINKS SPECIFICATION

Class of Operation:	gG
Standards/Approvals:	• ASTA Certified • BS 1361 : 1971 including anendments 1, 2 and 3
TECHNICAL DATA	
Rated Voltage:	415Vac
Amps:	5 to 100A
Rated breaking capacity:	33kA

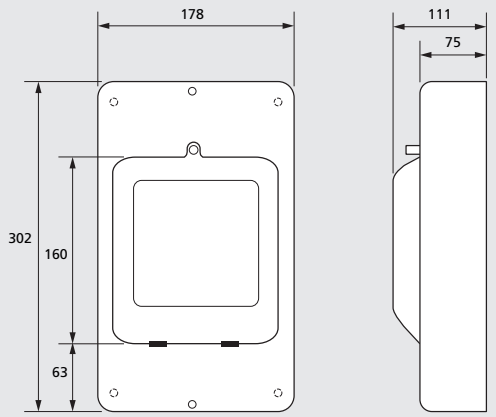
RECOMMENDED TIGHTENING TORQUES

Live and Neutral terminal cage	Earth Terminal cage	Earth Terminal bar (metal clad only)
2.3Nm	0.7Nm	1.2Nm
16mm² min	10mm² min	10mm² min
35mm² max	16mm² max	16mm² max

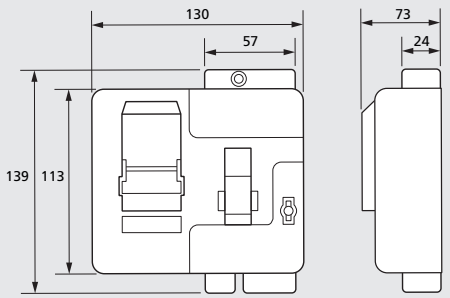
FUSE LINKS DATA

CAT REF	AMP RATING	I^2t (AMP² SECONDS) PRE-ARCING	TOTAL at 240V	TOTAL at 415V	NOM. WATTS LOSS
DSF040FL	40	2500	6800	14000	3.8
DSF045FL	45	3600	9880	20500	3.8
DSF050FL	50	4720	13000	27000	4.2
DSF060FL	60	9100	25000	52000	4.3
DSF080FL	80	24500	41500	58500	5.4
DSF100FL	100	43500	73500	105000	6.1

ALL METAL SWITCH FUSE UNIT



INSULATED SWITCH FUSE UNIT

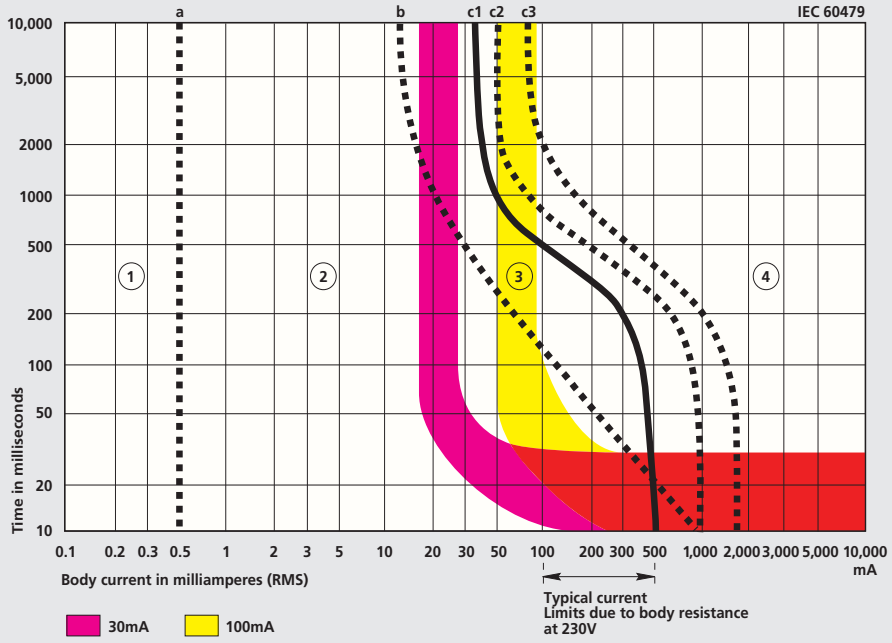


MCBs - Technical Data

MODEL	RCBO	MCB
Product brand name	NHXS	NHXL
Product designation	RCD operated circuit breaker	Miniature circuit breaker
GENERAL TECHNICAL DATA		
Product standard	IEC 61009-1	BS EN 60898-1
Number of poles	2	1
Number of poles / Note	1P+N	1P
Number of poles / with protection	1	1
Tripping characteristics class	B or C	B or C
RCD type	A	-
Mechanical service life (switching cycles) / typical	10,000	-
Overvoltage category	III	3
PRODUCT FUNCTION		
Product function / neutral conductor switching	Yes	N/A
VOLTAGE		
Surge current resistance / at (8/20) µs	1kA	N/A
SUPPLY VOLTAGE		
• at AC / rated value	240V	250V
• for testing equipment / minimum	195V	-
Supply voltage frequency / rated value	50Hz	50Hz
PROTECTION CLASS		
Protection class IP	IP20	IP20
Energy limiting class	3	3
SWITCHING CAPACITY CURRENT		
• acc. to EN 60898 / rated value	6kA	6kA
DISSIPATION		
Power loss (W)		
• for rated value of the current / at AC / in hot operating state / per pole	1.5W	2.6W
• maximum	2.6W	2.6W
ELECTRICITY		
Tripping residual current / rated value	30mA	N/A
Rated current in / IEC, DIN/VDE / at 40 cel	9.4A	15.08A
Current / at AC / rated value	6A - 40A	3A - 50A
CONNECTIONS		
Connectable conductor cross-section / stranded		
• minimum	0.75mm^2	0.75mm^2
• maximum	16mm^2	25mm^2
Connectable conductor cross-section		
• solid - minimum	0.75mm^2	0.75mm^2
• solid - maximum	16mm^2	25mm^2
• finely stranded / with core end processing - minimum	0.75mm^2	0.75mm^2
TIGHTENING TORQUE / WITH SCREW-TYPE TERMINALS		
Line terminal		
• minimum	2.5Nm	2.3Nm
• maximum	3.0Nm	3.0Nm
Load terminal		
• minimum	1.2Nm	2.3Nm
• maximum	2.0Nm	3.0Nm
MECHANICAL DESIGN		
Height x Width x Depth	90mm x 18mm x 77mm	90mm x 18mm x 77mm
Mounting position	Any	Any
Installation depth	70mm	70mm
Number of width units	1	1
Net weight	130g - 168g	116g - 156g
ENVIRONMENTAL CONDITIONS		
Degree of pollution	2	2
Influence of the surrounding temperature	Maximum 95% humidity	Maximum 95% humidity
Ambient Temperature		
• minimum	-25°C	-25°C
• maximum	55°C	45°C
• during storage / minimum	-40°C	-40°C
• during storage / maximum	75°C	75°C

IEC PUBLICATION (60479) CURVES WITH WYLEX RCD CHARACTERISTICS SUPERIMPOSED

TIME/CURRENT ZONES OF EFFECT OF AC CURRENT (15–100Hz) ON PERSONS



Zone Physiological effects

1 Usually no reaction effects (no danger).

2 Usually no harmful physiological effects (usually no effects).

3 Usually no organic damage to be expected. Likelihood of muscular contraction and difficulty of breathing, reversible disturbances of formation and conduction of impulses in the heart, and transient cardiac arrest without ventricular fibrillation increases with current magnitude and time.

4 In addition to the effects of zone 3, probability of ventricular fibrillation increased up to 5% (Curve C2), up to 50% (Curve C3) and above 50% beyond Curve C3. Increasing with magnitude and time, pathyphysiological effects such as cardiac arrest, breathing arrest and heavy burns may occur.

FAULT CURRENT SENSITIVITY

As the equipment is fed from the mains electrical supply, in the event of an earth fault the presence of semi-conductors may result in the normal ac waveform being replaced by a non-sinusoidal fault current. In some cases the waveform may be rectified or chopped. These waveforms are said to contain a pulsating dc component which can either partially desensitise or totally disable a standard Type AC RCD.
International standards IEC 61008 (RCCBs) and IEC 61009 (RCBOs) divide RCDs into two performance classes:

Type AC
RCDs for which tripping is ensured for residual sinusoidal alternating currents, whether suddenly applied or slowly arising.

Type A
RCDs for which tripping is ensured for residual sinusoidal alternating currents and residual pulsating direct currents, whether suddenly applied or slowly arising.

OPERATION

The RCD employs the current balance principle which involves the supply conductors to the load (phase and neutral) being wound onto a common transformer core to form the primary windings. Under healthy circuit conditions, the current in the phase conductor is equal to the current in the neutral, and the vector sum of the current is zero.
In the event of an earth fault, an amount of current will flow to earth, creating an out of balance situation in the transformer assembly.
This out of balance is detected by the secondary winding of the transformer and at a pre-determined level of out of balance will activate the trip mechanism.
Single phase and neutral or three phase and neutral units (suitable for 3 or 4 wire systems) are available, the latter being suitable for balanced or unbalanced 3 phase loads.
The RCD trip mechanism will operate at a residual current of between 50–100% of its rating tripping current (sensitivity).

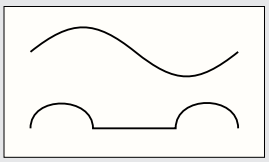
TRANSIENT EARTH LEAKAGE CURRENTS

All Wylex residual current devices incorporate a high level of immunity to tripping when subjected to transient earth leakage currents.
Such transients can occur when there is a significant level of capacitance to earth as can result from cable capacitance (particularly MICC) or RF filter networks. Wylex RCDs are therefore less susceptible to nuisance tripping due to transient earth leakage currents.

To ensure the correct level of protection, check for the following symbols:

TYPE AC
normal ac sensitivity

TYPE A
pulsating dc sensitivity



Wylex RCDs are available as both Type AC and Type A devices.

Technical details for Type B RCDs available on request.

RESIDUAL TRIPPING CURRENTS

10mA -
Used in special applications where additional protection against contact is essential due to the nature of the installation.

30mA -
Tripping current designated by the IEE Wiring Regulations to provide additional protection.

100mA -
Suitable for use where protection is provided to guard against firehazard, etc, rather than to provide additional protection to personnel, and where the earthing requirements need supplementing by RCD protection.

100mA time delay -
Suitable for use when total RCD protection is required to supplement the system earthing and where local 30mA RCDs are used to give additional protection. The time delay RCD will discriminate with the 30mA RCD.

300mA -
For use in large installations where plant and equipment protection are the main considerations and high levels of earth leakage are experienced.

If using RCDs in series, discrimination can only be achieved by using Type S devices in series with Types A or AC. See chart below.

BSEN61008-1:1995 RCBOs BSEN61009-1:1995

Type of RCD	Rated Residual Current (In) RCD to Trip between 50%-100% In	Tripping times 1x In	2x In	5x In	500Amps	Scope
Standard A & AC	Any Value, eg 10, 30, 100mA	300ms	150ms	40ms	40ms	Maximum-Trip
Time Delay (S)	Greater than 30mA, eg 100mA	500ms 130ms	200ms 60ms	150ms 50ms	150ms 40ms	Maximum-Trip Minimum-Non Trip

Metering - Technical Data

MID approval

Under the Electricity Act 1989 all electricity meters used for billing purposes must be approved.
The approval for these meters is obtained by conforming to the European Measuring Instruments Directive (MID) 2004/22/EC (replacing OFGEM approval). This directive covers a number of different Instruments that are used to measure products or services for reselling. Therefore not only does it apply to Electrical Meters but you may see MID approval on a range of items such as the charge meter in a taxi, beer and wine glasses (the volume measurement line) in a Public House or on the petrol pumps when you are filling up your vehicle.

Who should be using MID certified meters?

By Law, anyone who is taking a meter reading that is then used for billing purposes and for which they subsequently receive a payment from the user for the electricity consumed.

Some typical examples:

- A Retail shopping centre owner wants to measure the individual consumption of all the store owners in his shopping mall and send them separate invoices for the electricity that each has used to run their business.
- A Landlord who wants to measure the electricity used by tenants renting apartments in his building and then send them a bill for the electricity they have used.
- A caravan/mobile home Leisure Park wants to measure the consumption of its customers and charge them an exact amount for the electricity used at the end of their rental period.

All of these examples must have the electricity consumption reading taken from a certified MID approved meter. The MID certification validates that the meter is manufactured using quality components, assures the meter is accurate for electricity billing purposes and that it maintains this accuracy over time for consistent readings.

Standard Meters - Non MID approved

If a meter is being used purely for a "check meter reading" and not being used to resell or charge for electricity consumed, then a standard meter that is reasonably accurate may be used to measure energy used at that point in time. For example, a check meter reading is required to meet L2 Building Regulations and Chartered Institution of Building Services Engineers TM39 guide to Building Energy Metering. The reading taken is used as a 'check point' to help reduce energy consumption.

Single Phase and Three Phase Measuring Devices

Direct Connected kW Meters -
No external current transformers required.
Standard reading or MID calibrated options.
All meters have pulsed output for Building Management Systems. (BMS)

General Characteristics		
Housing Width	2 modules DIN	4 modules DIN
Mounting	35mm DIN rail	35mm DIN rail
Depth	70mm	70mm
Reference standard	EN 50470-1-3 ***(B)***, EN 62053-23-31	EN 50470-1-3 ***(B)***, EN 62053-23-31
Operating Features		
Connectivity	2	2-3-4
Storage of energy values and configuration	yes	yes
Display tariffs identifier	T1 and T2	T1 and T2
Supply		
Rated control supply voltage Un	230 VAC	230 VAC
Operating range voltage	184 … 276 V	184 … 276 V
Rated frequency fn	50 Hz	50 Hz
Rated power dissipation (max.) Pv	≤8 (0.6) VA (W)	≤8 (0.6) VA (W)
Display (readouts)		
Connection errors and phase out	-	PHASE Err
Display type LCD - Digits	7 (1 decimal) - 6mm x 3mm	8 (1 decimal) - 6mm x 3mm
Active energy: 1 display, 7-digit	000000.0 … 999999.9 kWh	0000000.0 … 999999.9 kWh
+ display import or export (arrow)	999999.9 … 000000.0 kWh	9999999.9 … 000000.0 kWh
Reactive energy: 1 display, 7-digit	000000.0 … 999999.9 kWh	0000000.0 … 999999.9 kWh
+ display import or export (arrow)	999999.9 … 000000.0 kWh	9999999.9 … 000000.0 kWh
Instantaneous active power: 1 display, 3-digit	000 … 999 W, kW or MW	000 … 999 W, kW or MW
Instantaneous reactive power: 1 display, 3-digit	000 … 999 var, kvar or Mvar	000 … 999 var, kvar or Mvar
Instantaneous tariff measurement	1 display, 1 digit T1 or T2	1 display, 1 digit T1 or T2
Display period refresh (seconds)	1	2
Measuring accuracy		
Active energy and power	±1% ***(B)***	±1% ***(B)***
Reactive energy and power	±2 %	±2 %
Pulse output SO		
Pulse output	yes	yes
Pulse quantity	1000 imp/kWh	500 imp/kWh
Pulse duration	30 ±2 ms	30 ±2 ms
Required voltage	5 … 230 ±5% (5 …300) VAC (DC)	5 … 230 ±5% (5 …300) VAC (DC)
Permissible current	90 mA	90 mA
Permissible current	1µA	1µA

MID meters used for billing have a limited lifespan prior to recalibration or replacement.

CUSTOM BUILT

To meet the ever changing requirements and designs of the modern electrical installation, Wylex offers a service to the electrical installer for all the catalogued NH range of products - Consumer Units, and Distribution Boards to be modified and assembled to their own particular specification and meeting specific customer needs.

The levels of adaptation may vary from the basic pre-population and assembly of outgoing protective devices MCBs, RCBOs into the units with personalised labelling, to the complete customisation and wiring of additional accessory devices within a unit:- for example meters, energy monitors, control switching equipment:- contactors, relays and timers, and over voltage surge protection devices plus almost any other DIN rail mounted piece of electrical accessory equipment that is available.

This Custom Built service can save time on site, reduce labour costs, and help achieve early completion & ultimately save money for the installer of these units.

Electrium

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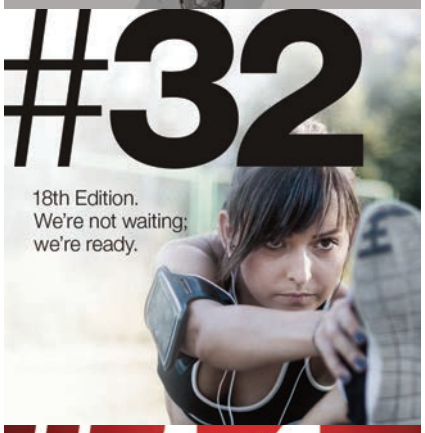

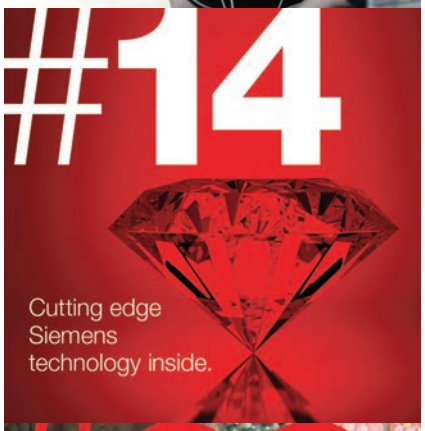

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