

SHIELD

SHIELD ELECTRICS LTD

Shield Range NXDB MKIII TP&N Distribution Boards and Metering Solutions

- Individual boards are supplied with pre-fitted 4 Pole Isolators
- Power & Lighting boards come complete with dual metering and a 4 Pole 250A Isolator
- Removable gland plates
- Various locking options are available
- Can be installed together either Vertically OR Horizontally



Metering
Capability



Surge Arrester
Capability

SHIELD Electrics. **Powering The World**

Contents

SHIELD RANGE

NXDB 125A/200A TP&N Distribution Boards and Metering Solutions

	PAGE
Product Overview	3
Product Features	4
Part Numbers, Dimensions & Weights	5
Power and Lighting Boards	6
Wiring Diagrams	7
Metering	8
PAN Assemblies	9
NB1 10KA MCBs	10
NB3LEU RCB0s 1P+N, TYPE AC & NB3LEG RCB0s TYPE A	11
Overview of other Shield Products	12

SHIELD ELECTRICS LTD

MISSION STATEMENT

To supply product equal to the best
Be competitive in price, offering true value for money
React in a timely manner
Be easy to trade with

Product Overview

ROBUST ALL METAL TP&N BOARDS: 4, 6, 8, 12, 18 & 24 WAYS

Boards can be installed together, **vertically** or **horizontally** with or without **Meter kits. Extension Boxes** are available for use as Cable Spreader units, fitted with 35mm DIN rail to mount various components, alternatively with a 250A, 4 Pole Isolator to be used where 2 boards are combined.

Units are Powder Coated to RAL 7035 over pretreated Heavy Gauge Steel with welded corners.

A wide selection of laser pre cut cable entries which are easily removed without deforming the outer case.

A selection of **PAN assemblies** are available for mounting directly to Control Panels. 4, 6, 8 and 12 ways.

The boards are available as individual units as shown on the following pages.



PLEASE NOTE:

Where Shield assemble boards to customer requirements be aware that weight may be an issue. Shield will take responsibility for shipping to a UK site address with the equipment mounted where appropriate to pallets and off loaded at the Kerbside.

It is the client's responsibility to remove the equipment from the kerbside to a final installation point. We use 3rd party contractors for shipping, it is **crucial that firm arrangements are made to receive the goods.**

Product Features

SHIELD MKIII TYPE B BOARDS

Shield MKIII B Boards are manufactured from Sheet Steel to meet the requirements of **BS-EN 61439-3** with an **IP rating of IP3X**.

The main boards designed and manufactured in the UK are of pleasing appearance, finished in smooth powder coated pale grey paint to RAL 7035 over pre treated steel.

Available sizes are 4, 6, 8, 12, 18 and 24 Ways, a 4 Pole 125A Incomer is included as standard.

- **4, 6, 8, 12, 18 and 24 Way, boards made in the UK**
- **Accepts Chint NB1-6KA and NB1-10KA MCBs, NB3LEU 'AC' RCB0s and NB3LEG 'A' Type RCB0s**
- **Incomers Pre-fitted as standard**
- **Key Locking Capability**
- **Main Boards and Extension Boxes**
- **Can be mounted in either horizontal or vertical format as Power & Lighting Boards**



EX-MD20 Extension box to allow extra 20 modular spaces for control NCH8 contactor, SDTS-15 time clocks, bell transformers, etc.



Accessory: NXDB-Link with shroud



Circular Conduit holes and square cut out for trunking to give easy access without damaging the Gland Plates.



Pre fitted with 1/4 turn coin operated fasteners to both the main boards and the cable spreader boxes.



NXDB TP&N BOARDS & ACCESSORIES		Dimensions (mm)			APPROX. WEIGHT (KG)
PART. NO.	DESCRIPTION	HEIGHT	WIDTH	DEPTH	
125A 3 PHASE TP&N BOARDS - ALL METAL					
NXDB-125-4	4 Way	600	500	165	15
NXDB-125-6	6 Way	700	500	165	16.5
NXDB-125-8	8 Way	735	500	165	17
NXDB-125-12	12 Way	850	500	165	20
NXDB-125-18	18 Way	1000	500	165	23
NXDB-125-24	24 Way	1165	500	165	26.5
NXDB-125-IK4P	125A Incomer Kit for NXDB-125 (Pre-fitted)	-	-	-	0.1
200A 3 PHASE TP&N BOARDS - ALL METAL					
NXDB-200-4	4 Way	750	500	165	19
NXDB-200-6	6 Way	800	500	165	20.8
NXDB-200-8	8 Way	855	500	165	22.6
NXDB-200-12	12 Way	965	500	165	23.8
NXDB-200-18	18 Way	1125	500	165	28.4
NXDB-200-24	24 Way*	1300*	500	165	*
NXDB-200-IK4P	200A Incomer Kit for NXDB-200 (Pre-fitted)	-	-	-	2.2
ACCESSORIES					
EX-1803	Spreader Box	400	500	165	6
EX-4250	250A, 4P Incomer Unit with Cable Shrouds	400	500	165	10
EX-MD20	NXDB Extension box with Glazed Door – 20 modules	400	500	165	9
MRJ4M-LS01	Single Meter Kit for NXDB 125A board	-	-	-	1.2
MRJ4M-LS03	Single Meter Kit for NXDB-200A board	-	-	-	1.5
SBLK01	Din rail mounted MCB shape blanking module	-	-	-	-
NXDB-BP	18mm Single Blanking Plate	-	-	-	-
NXDB-LINK	3 Phase – Single Phasing Link for NXDB 125A board	-	-	-	-
LOCK01	Key Lock for NXDB doors (2 required for 18 & 24 ways)	-	-	-	-
NM8-PL-250	Padlock-able Lock off device for EX-4250 incomer	-	-	-	-

*TBC.

Pre assembled Metered Power and Lighting Boards and Meter Kits are available to order, see pages 6 & 7.

Power and Lighting Boards – Metered

The Shield solution to metering the output from individual 3 Phase Boards is both elegant and convenient and can be applied to all NXDB boards i.e. to Shield 4, 6, 8 and 12 Way boards.

We can supply the following as kits for assembly on site, alternatively we are happy to assemble to suit specific applications based on our basic format as shown.

Where we are asked to assemble boards to suit specific needs it is recommended that an initial telephone call is made to our office possibly followed by a site meeting. Please be aware that dependent on how the boards are to be configured, site, weight and handling will be a consideration.

Boards are assembled on slotted 41x41 mm channel for added strength during transport and can be used for mounting against a suitable wall.



Metered Boards		Dimensions (mm)			Approx. Weight (kg)
Part. No.	Description	Height	Width	Depth	
125A 3 Phase TP&N Boards (Including Pre-fitted Incomer) - All Metal					
NXDB-4MK	4 Ways 3 Phase Board with Meter Kit	600	500	165	16
NXDB-6MK	6 Ways 3 Phase Board with Meter Kit	700	500	165	17.5
NXDB-8MK	8 Ways 3 Phase Board with Meter Kit	735	500	165	18
NXDB-12MK	12 Ways 3 Phase Board with Meter Kit	850	500	165	21
NXDB-18MK	18 Ways 3 Phase Board with Meter Kit	1000	500	165	24
NXDB-24MK	24 Ways 3 Phase Board with Meter Kit	1165	500	165	27
200A 3 Phase TP&N Boards (Including Pre-fitted Incomer) - All Metal					
NXDB-200-4MK	4 Ways 3 Phase Board with Meter Kit	750	500	165	22
NXDB-200-6MK	6 Ways 3 Phase Board with Meter Kit	800	500	165	24
NXDB-200-8MK	8 Ways 3 Phase Board with Meter Kit	855	500	165	25.5
NXDB-200-12MK	12 Ways 3 Phase Board with Meter Kit	965	500	165	27
NXDB-200-18MK	18 Ways 3 Phase Board with Meter Kit	1125	500	165	31.5
NXDB-200-24MK*	24 Ways 3 Phase Board with Meter Kit	1300*	500	165	*

*TBC.

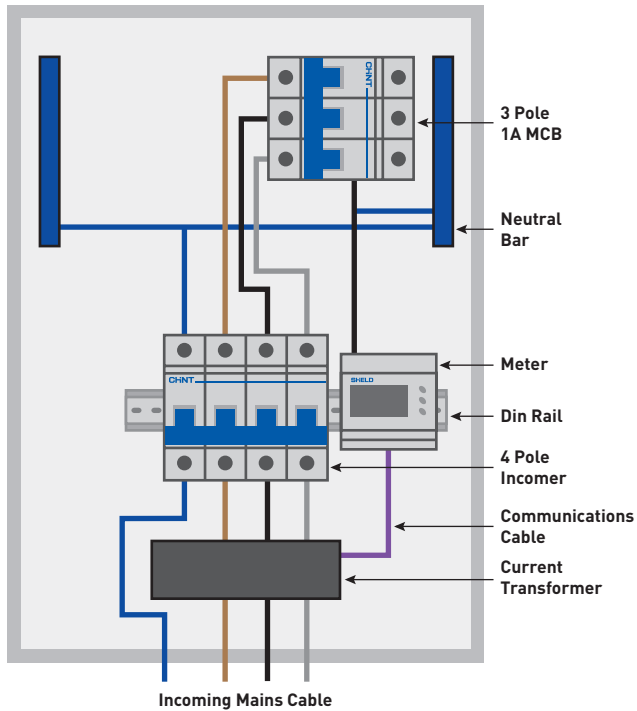
POWER AND LIGHTING BOARDS		Dimensions (mm)			APPROX. WEIGHT (KG)
PART. NO.	DESCRIPTION	HEIGHT	WIDTH	DEPTH	
VERTICAL MOUNTED 125A 3 PHASE TP&N BOARDS - ALL METAL					
NXDB-44MK	4 Way & 4 Way TP&N, 4 Pole Incomer & 2 meters	1600	500	165	45
NXDB-46MK	4 Way & 6 Way TP&N, 4 Pole Incomer & 2 meters	1700	500	165	46.5
NXDB-48MK	4 Way & 8 Way TP&N, 4 Pole Incomer & 2 meters	1735	500	165	48
NXDB-412MK	4 Way & 12 Way TP&N, 4 Pole Incomer & 2 meters	1850	500	165	50
NXDB-66MK	6 Way & 6 Way TP&N, 4 Pole Incomer & 2 meters	1800	500	165	48
NXDB-68MK	6 Way & 8 Way TP&N, 4 Pole Incomer & 2 meters	1835	500	165	48.5
NXDB-612MK	6 Way & 12 Way TP&N, 4 Pole Incomer & 2 meters	1950	500	165	51.5
NXDB-88MK	8 Way & 8 Way TP&N, 4 Pole Incomer & 2 meters	1870	500	165	49
NXDB-812MK	8 Way & 12 Way TP&N, 4 Pole Incomer & 2 meters	1985	500	165	52

Wiring Diagrams

There is a full range of **ASTA approved** B, C and D Curve MCBs and B and C Curve RCBOs readily available to complement the **Shield NXDB TP&N Distribution Boards**.

SINGLE BOARD

Part No. MRJ4M-LS01



IMPORTANT NOTE:

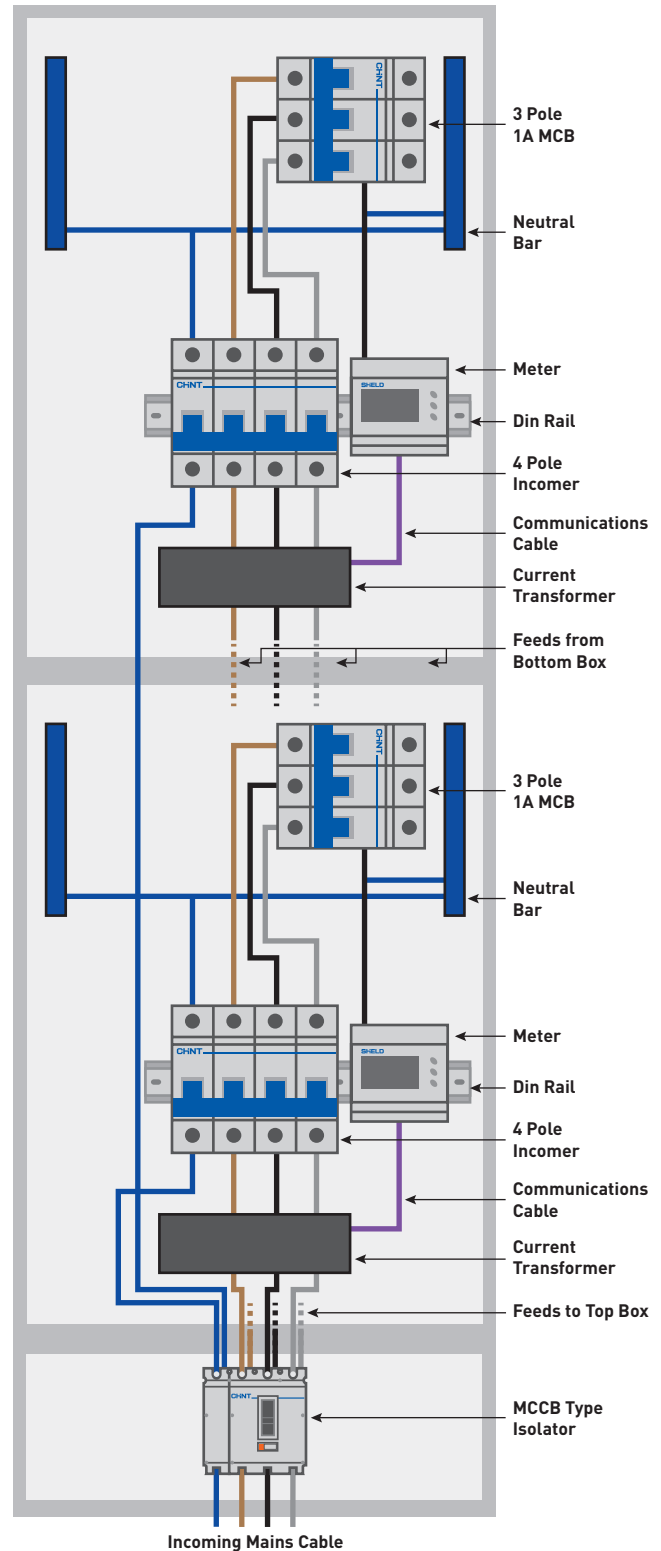
When sizing the correct size of board be aware that the MCB feeding the meter etc., takes up 1 full way (L1, L2, & L3), thereby reducing the effective size of each board by 1, 3 way module, i.e. A 4 Way board becomes 3, 6 Way becomes 5 etc.

*PLEASE NOTE:

Shield will take responsibility for shipping to an agreed UK location on appropriate pallets. Our carrier will deliver to the roadside after which it will be Client's responsibility to offload to the final location. **Carriage is charged extra.**

TWIN BOARD

Part No. MRJ4M-LS01 x 2



Metering

DIN RAIL MOUNTING & LCD DISPLAY

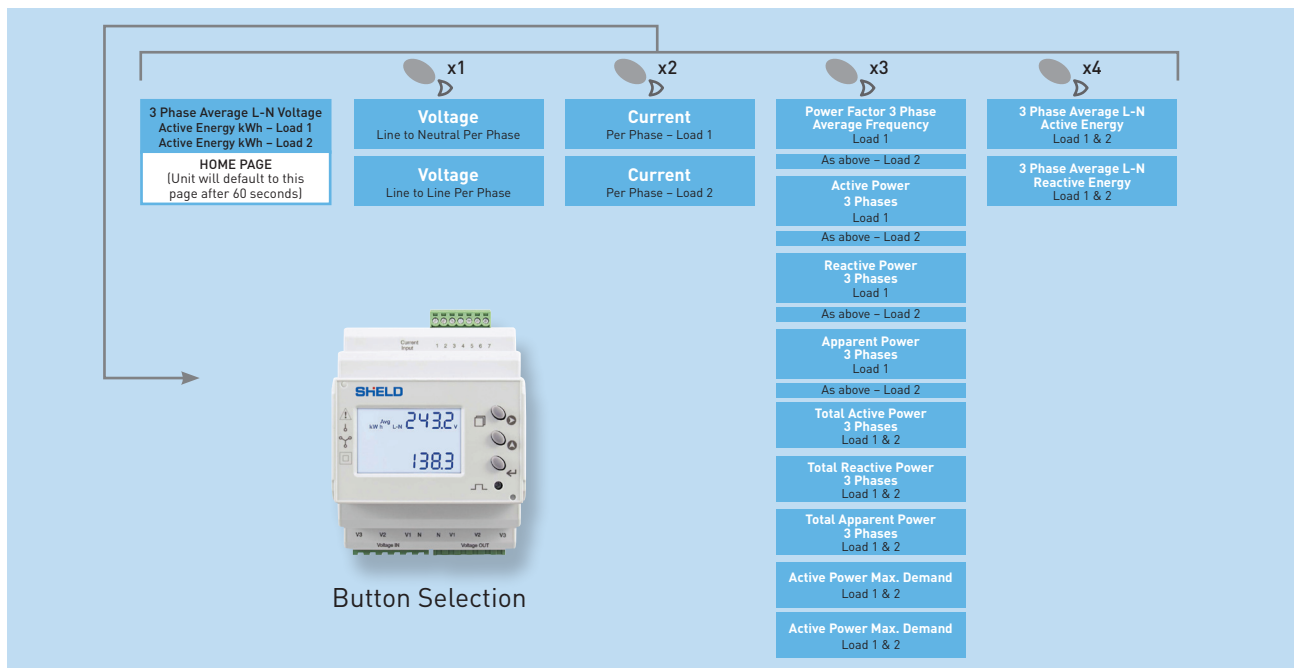


MRJ4M-LS01

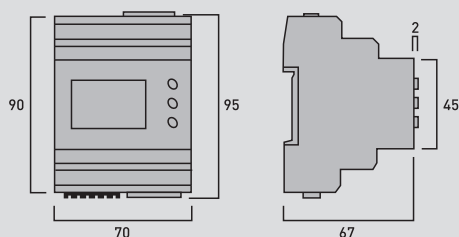
Displayed Parameters and Accuracies

Voltage	0.5% of full scale
Current	0.5% of full scale
Frequency	0.1% of full scale (L-N →20V)
Power Factor	1% of unity
Active Power	1%
Reactive Power	1%
Apparent Power	1%
Active Energy	Class 1 (IEC/EN62053-21)
Reactive Energy	Class 2 (IEC/EN62053-23)

- 4 Module DIN Rail mounting
- Single phase or 3 phase (4 wire) network balanced or unbalanced load
- Built-in energy pulse output, one for each load and RS485 MODBUS communication
- Wide range of measured parameters (see table below)
- High quality backlit LCD display
- 330mV current Transformer input
- Active energy class 1 (EN62053-21)
- Reactive energy class 2 (EN62053-23)
- 3 phase: 140...520Vac measured voltage
- Single phase: 60...300Vac measured voltage
- Self supplied auxiliary
- Programmable CT ratio 5...10,000A per load
- Programmable VT ratio
- Frequency 45/65Hz
- Selectable CT phase correction allows reversal of L1 and L3



Power Meter Dimensions



Please allow space above and below the meter for cable connections. Dimensions in mm.

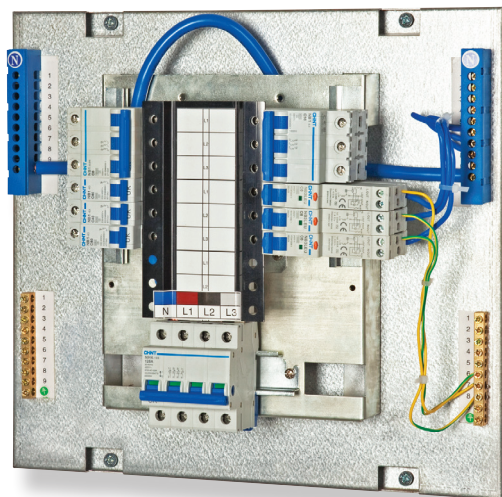
DISPLAYED PARAMETERS

Voltage	L-L, L-N and average
Current	Per Phase and average
Power Factor	Per Phase and average
FREQUENCY	
Power	Active, Reactive and Apparent (per phase and total)
Power Max. demand	Active and Apparent Power
Energy	Active, Reactive and Apparent (total)

PAN Assemblies

A range of 125A Panel Mounting **PAN Assemblies** that accept the ASTA approved Chint NB1 B, C or D Curve 6 or 10KA MCBs, NB3LEU or NB3LEG RCB0s.

Pan assemblies are supplied as standard with a 125A, 4 Pole Incomer.



POWER AND LIGHTING BOARDS		Dimensions (mm)			APPROX. WEIGHT (KG)
PART. NO.	DESCRIPTION	HEIGHT	WIDTH	DEPTH	
PA-04	4 Way Pan Assembly	354	428	120	4.5
PA-06	6 Way Pan Assembly	453	428	120	5
PA-08	8 Way Pan Assembly	482	428	120	5.5
PA-12	12 Way Pan Assembly	604	428	120	7

NB1

10KA MCBs



Boxed in 12s

In (A)	POLE	B CURVE	C CURVE	D CURVE
1A	1P	NB1-63BH1P01	NB1-63CH1P01	NB1-63DH1P01
2A	1P	NB1-63BH1P02	NB1-63CH1P02	NB1-63DH1P02
3A	1P	NB1-63BH1P03	NB1-63CH1P03	NB1-63DH1P03
4A	1P	NB1-63BH1P04	NB1-63CH1P04	NB1-63DH1P04
6A	1P	NB1-63BH1P06	NB1-63CH1P06	NB1-63DH1P06
10A	1P	NB1-63BH1P10	NB1-63CH1P10	NB1-63DH1P10
16A	1P	NB1-63BH1P16	NB1-63CH1P16	NB1-63DH1P16
20A	1P	NB1-63BH1P20	NB1-63CH1P20	NB1-63DH1P20
25A	1P	NB1-63BH1P25	NB1-63CH1P25	NB1-63DH1P25
32A	1P	NB1-63BH1P32	NB1-63CH1P32	NB1-63DH1P32
40A	1P	NB1-63BH1P40	NB1-63CH1P40	NB1-63DH1P40
50A	1P	NB1-63BH1P50	NB1-63CH1P50	NB1-63DH1P50
63A	1P	NB1-63BH1P63	NB1-63CH1P63	NB1-63DH1P63



Boxed in 6s

In (A)	POLE	B CURVE	C CURVE	D CURVE
1A	2P	NB1-63BH2P01	NB1-63CH2P01	NB1-63DH2P01
2A	2P	NB1-63BH2P02	NB1-63CH2P02	NB1-63DH2P02
3A	2P	NB1-63BH2P03	NB1-63CH2P03	NB1-63DH2P03
4A	2P	NB1-63BH2P04	NB1-63CH2P04	NB1-63DH2P04
6A	2P	NB1-63BH2P06	NB1-63CH2P06	NB1-63DH2P06
10A	2P	NB1-63BH2P10	NB1-63CH2P10	NB1-63DH2P10
16A	2P	NB1-63BH2P16	NB1-63CH2P16	NB1-63DH2P16
20A	2P	NB1-63BH2P20	NB1-63CH2P20	NB1-63DH2P20
25A	2P	NB1-63BH2P25	NB1-63CH2P25	NB1-63DH2P25
32A	2P	NB1-63BH2P32	NB1-63CH2P32	NB1-63DH2P32
40A	2P	NB1-63BH2P40	NB1-63CH2P40	NB1-63DH2P40
50A	2P	NB1-63BH2P50	NB1-63CH2P50	NB1-63DH2P50
63A	2P	NB1-63BH2P63	NB1-63CH2P63	NB1-63DH2P63



Boxed in 4s

In (A)	POLE	B CURVE	C CURVE	D CURVE
1A	3P	NB1-63BH3P01	NB1-63CH3P01	NB1-63DH3P01
2A	3P	NB1-63BH3P02	NB1-63CH3P02	NB1-63DH3P02
3A	3P	NB1-63BH3P03	NB1-63CH3P03	NB1-63DH3P03
4A	3P	NB1-63BH3P04	NB1-63CH3P04	NB1-63DH3P04
6A	3P	NB1-63BH3P06	NB1-63CH3P06	NB1-63DH3P06
10A	3P	NB1-63BH3P10	NB1-63CH3P10	NB1-63DH3P10
16A	3P	NB1-63BH3P16	NB1-63CH3P16	NB1-63DH3P16
20A	3P	NB1-63BH3P20	NB1-63CH3P20	NB1-63DH3P20
25A	3P	NB1-63BH3P25	NB1-63CH3P25	NB1-63DH3P25
32A	3P	NB1-63BH3P32	NB1-63CH3P32	NB1-63DH3P32
40A	3P	NB1-63BH3P40	NB1-63CH3P40	NB1-63DH3P40
50A	3P	NB1-63BH3P50	NB1-63CH3P50	NB1-63DH3P50
63A	3P	NB1-63BH3P63	NB1-63CH3P63	NB1-63DH3P63

NB3LEU

RCBOs Type AC

**NB3LEU, 10KA, 1P+N, Type AC**

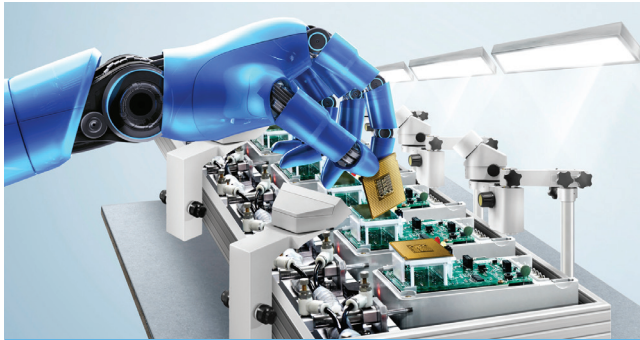
DESCRIPTION	B CURVE	C CURVE
6A 30mA	NB3LEU-B06	NB3LEU-C06
10A 30mA	NB3LEU-B10	NB3LEU-C10
16A 30mA	NB3LEU-B16	NB3LEU-C16
20A 30mA	NB3LEU-B20	NB3LEU-C20
25A 30mA	NB3LEU-B25	NB3LEU-C25
32A 30mA	NB3LEU-B32	NB3LEU-C32
40A 30mA	NB3LEU-B40	NB3LEU-C40
45A 30mA	NB3LEU-B45	NB3LEU-C45
50A 30mA	NB3LEU-B50	NB3LEU-C50

NB3LEG

RCBOs TYPE A

**NB3LEG, 6KA, 1P+N, Type A**

DESCRIPTION	B CURVE	C CURVE
6A 30mA	NB3LEG-B06	NB3LEG-C06
10A 30mA	NB3LEG-B10	NB3LEG-C10
16A 30mA	NB3LEG-B16	NB3LEG-C16
20A 30mA	NB3LEG-B20	NB3LEG-C20
25A 30mA	NB3LEG-B25	NB3LEG-C25
32A 30mA	NB3LEG-B32	NB3LEG-C32
40A 30mA	NB3LEG-B40	NB3LEG-C40



Energy Distribution

Energy distribution solutions for domestic, commercial and industrial installations. Includes MCCB panel boards, consumer units, circuit protection equipment and other modular devices.



Industrial Controls

Controls and switchgear for industrial installations. Includes Air Circuit Breakers (ACBs), Moulded Case Circuit Breakers (MCCBs), contactors, transformers and other control components.



LED Lighting

LED floodlight options for energy efficient security, garden landscape, or architectural lighting. Rechargeable work lamps and battery powered head torches for working on site when the power is off.



Wiring Accessories

Wiring accessories for any type of installation or environment. Includes IP66 weatherproof switches, brushed steel USB sockets, and a large selection suitable for use with steel conduit.

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