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Axiom devices and accessories

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section four





Axiom MCB's features and benefits



SPNX MCB 2 pole

- SP and SP&SN MCB's to BSEN 60898.
- 6kA breaking capacity.
- 18mm SP MCB.
- 18mm SP RCBO.
- 36mm DP RCBO.
- 18mm SP&SN MCB.
- B and C curve.
- Positive contact indication.
- Trip free mechanism.
- Auxiliary switch.
- Alarm contact.
- Undervoltage release.
- Lockable in "ON" or "OFF" position.

Additional benefits of SP&SN MCB's:

- Isolation of neutral to earth faults.
- Added protection against the dangers of reverse polarity.
- Easier and safer commissioning and testing.
- Easier fault finding.
- Easier wiring provided by adjacent phase and neutral terminals.

A unique flexible range

The combination of devices and enclosures available provides a unique and versatile range of consumer units. Axiom is the first unit available which accepts both SP and SP&SN products without the need for product adaptation. Axiom units are suitable for use on special installations which demand the use of SP&SN products or standard installations providing the opportunity to upgrade from SP and SP&SN at a later date. There is also a large range of command and control products available.



C60X MCB single pole

C60 features and benefits



Miniature circuit breaker

- MCB's are rated up to 10,000A to BSEN 60-898.
- All MCB's positively indicate the true position of their main contacts directly on the toggle handle.

Available in the following configurations:

- 1, 2, 3 and 4 pole.
- B, C and D ratings 1 - 63A.

Vigi earth fault module

A range of residual current protection devices which can be added to any MCB providing combined overcurrent and earth fault protection to any circuit.

- Personnel, fire or system protection available.
- Unwanted tripping filter incorporated.
- Independent 'tripped' flag indication can be arranged to identify earth fault tripping only.

Alarm switch - SD

- Provides remote indication of fault trip.
- Provides a signal to drive other circuits (via contactor or impulse relay).
- Independent test facility.
- Independent 'tripped' flag indicator.

Auxiliary switch - OF

- Provides remote status indication (ON/OFF).
- Provides a signal to drive other circuits (via contactor or impulse relay).
- Independent test facility.

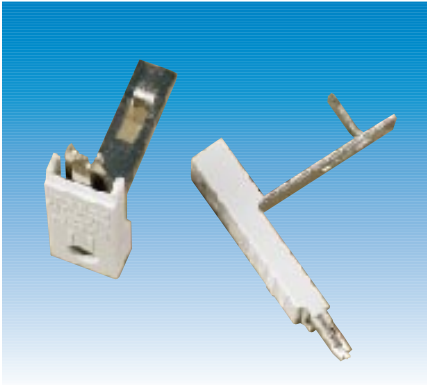
Shunt trip - MX

- Remote 'OFF' facility of the MCB when the shunt trip coil is energised.
- Can be used with switches or sensors (overheating etc).
- Independent 'tripped' flag indicator.
- Includes one auxiliary changeover switch.

Undervoltage release - MN

- 'Failsafe' remote 'OFF' facility of the MCB when the UV coil is de-energised.
- Trips breaker in the event of mains failure.
- Ideal for use with emergency 'OFF' pushbuttons.
- Independent 'tripped' flag indicator.

C60H 2 and 4 pole MCB's additional features and benefits



All Isobar 4 distribution boards can also accept 2 and 4 pole devices making Isobar 4 C60 suitable for all applications including those which demand isolation of the neutral on outgoing circuits.

The circumstances under which the neutral conductor should be switched are recognised in basic statutory requirements such as BS 7671 (Wiring Regulations), which class the neutral as a "live conductor". It is also supplemented by guidance produced by the Health and Safety Commission for special applications which demand the use of products which simultaneously switch and isolate the phase and neutral conductors.

Neutral switching provides additional safety over the generally accepted levels, and is becoming increasingly accepted.

A selection of installations where the neutral must be switched

- Caravans, motor caravans and caravan parks - BS 7671.
- Petrol forecourts - HSC guidance.
- Paint spray shops - HSC guidance.
- Petrochemical industry - HSC guidance.
- Car parks (multi story/subterranean) - HSC guidance.
- Marinas - BS 7671 special installations.
- IT distribution systems - BS 7671.
- Emergency switching applications - BS 7671.
- Construction sites - BS 7671.
- Systems where the neutral cannot be reliably regarded as being at earth potential - BS 7671.
- Circuits outside the equipotential zone.

Benefits of switching the neutral

- The circuit is totally isolated.
- There is no risk of an electric shock from the neutral.
- There is no risk of fire as a result of a potential on the neutral.
- Although polarity checks are part of standard commissioning procedure, DP and SP&SN devices provide extra protection against serious endangerment.
- Insulation resistance tests can be carried out more easily and with greater speed than conventional methods.
- Neutral conductors are more easily identified.
- Wiring is easier to trace.

C60X single pole (SP) miniature circuit breakers (MCB's)



Functions

- Overload protection.
- Short circuit protection.
- Earth fault protection when used in accordance with BS7671.
- On load switching and isolation
- Positive contact indication (PCI) to BS7671.
- Energy limitation classification of 3.
- Lockable in "ON" or "OFF" position.
- Trip free mechanism.

Applications

For use in installations where loads are resistive or moderately reactive.
e.g. lighting, heating and supplies to socket outlets.

Part number	Device type	Current rating (In)	Curve type	Operating voltage (Ucn)	Breaking capacity	Standards approval	No. ways occupied	Max. cable cap.
C60XB104	MCB	4A	B	230/240V	6kA	BSEN 60898	1	25mm ²
C60XB106	MCB	6A	B	230/240V	6kA	BSEN 60898	1	25mm ²
C60XB110	MCB	10A	B	230/240V	6kA	BSEN 60898	1	25mm ²
C60XB116	MCB	16A	B	230/240V	6kA	BSEN 60898	1	25mm ²
C60XB120	MCB	20A	B	230/240V	6kA	BSEN 60898	1	25mm ²
C60XB132	MCB	32A	B	230/240V	6kA	BSEN 60898	1	35mm ²
C60XB140	MCB	40A	B	230/240V	6kA	BSEN 60898	1	35mm ²
C60XB145	MCB	45A	B	230/240V	6kA	BSEN 60898	1	35mm ²
C60XB150	MCB	50A	B	230/240V	6kA	BSEN 60898	1	35mm ²
C60XC106	MCB	6A	C	230/240V	6kA	BSEN 60898	1	25mm ²
C60XC110	MCB	10A	C	230/240V	6kA	BSEN 60898	1	25mm ²
C60XC116	MCB	16A	C	230/240V	6kA	BSEN 60898	1	25mm ²
C60XC132	MCB	32A	C	230/240V	6kA	BSEN 60898	1	35mm ²
C60XC140	MCB	40A	C	230/240V	6kA	BSEN 60898	1	35mm ²

C60X products are only suitable for use in Axiom units

SPNX single pole and switched neutral miniature circuit breakers



Functions

- Overload protection.
- Short circuit protection.
- Earth fault protection when used in accordance with BS7671.

- On load switching and isolation.
- Energy limitation classification of 3.
- Positive contact indication (P.C.I.).

Applications

For use in any installation where the neutral should be switched, i.e. where the neutral represents a hazard. Both phase and neutral are disconnected in the event of a fault, offering higher levels of safety and complying with requirements of special installations in BS 7671.

For use in installations where loads are resistive or moderately reactive.

e.g. lighting, heating and supplies to socket outlets.

Part number	Device type	Current rating (In)	Curve type	Operating voltage	Breaking capacity (Icn)	Standards approval	No. ways occupied	Max. cable cap.
SPNXB6	MCB	6A	B	230/240V	6kA	BSEN 60898	1	16mm ²
SPNXB10	MCB	10A	B	230/240V	6kA	BSEN 60898	1	16mm ²
SPNXB16	MCB	16A	B	230/240V	6kA	BSEN 60898	1	16mm ²
SPNXB20	MCB	20A	B	230/240V	6kA	BSEN 60898	1	16mm ²
SPNXB32	MCB	32A	B	230/240V	6kA	BSEN 60898	1	16mm ²
SPNXB40	MCB	45A	B	230/240V	6kA	BSEN 60898	1	16mm ²

SPNX products are only suitable for use in Axiom units

C60HB/HC/HD

miniature circuit breakers



Technical data

- **Current ratings:** BSEN 60898
1A to 63A at 30°C.
- **Voltage ratings:** 240/415V AC.
- **Breaking capacity:**
BSEN 60898 Icn.

Rating (A)	Type	Voltage (V AC)	Breaking capacity
1-63	1P	240	10,000
1-63	2,3,4P	240/415	10,000

- **Positive contact indication:** in accordance with the 16th Edition of the IEE Wiring Regulations (537-02-04, 537-03).
- **Operating cycles (O-C):**
on load 20,000.
- **Operating temperature:**
-30°C to +70°C.

Width in 9mm modules

1P	2P	3P	4P
2	4	6	8

Weight (g):

1P	2P	3P	4P
110	220	340	450

Auxiliaries

- VIGI residual current devices.
- Undervoltage trip release MN.
- Auxiliary switch OF.
- Alarm switch SD.
- Shunt trip module MX.

Installation

- Direct panel mounting.
- Panel mounting on symmetrical DIN rail.
- In Merlin Gerin Isobar 4 distribution boards and standard enclosures.

Information

- Electrical auxiliaries Page 48
- Accessories Page 49
- Add on earth leakage (Vigi) Page 66

For motor applications,
DC applications Page 170
400Hz operation contact Merlin Gerin.

C60HB/HC/HD

miniature circuit breakers

C60HB type B

Applications

Protection and control of circuits against overloads and short circuits.

- In commercial and industrial electrical distribution systems.
- In domestic installations.
- Tripping characteristics:
BSEN 60-898 type B: magnetic setting between 3 and 5 In.
- Cable capacity: ²
1 - 25A = 25mm ²
32 - 63A = 35mm

C60HB miniature circuit breaker Part No's

Ratings (A)	1P	2P	3P	4P
1	C60HB 101	C60HB 201	C60HB 301	C60HB 401
2	C60HB 102	C60HB 202	C60HB 302	C60HB 402
4	C60HB 104	C60HB 204	C60HB 304	C60HB 404
6	C60HB 106	C60HB 206	C60HB 306	C60HB 406
10	C60HB 110	C60HB 210	C60HB 310	C60HB 410
16	C60HB 116	C60HB 216	C60HB 316	C60HB 416
20	C60HB 120	C60HB 220	C60HB 320	C60HB 420
25	C60HB 125	C60HB 225	C60HB 325	C60HB 425
32	C60HB 132	C60HB 232	C60HB 332	C60HB 432
40	C60HB 140	C60HB 240	C60HB 340	C60HB 440
50	C60HB 150	C60HB 250	C60HB 350	C60HB 450
63	C60HB 163	C60HB 263	C60HB 363	C60HB 463

C60HC type C

Applications

Protection and control of circuits against overloads and short circuits.

- In commercial and industrial electrical distribution systems.
- In applications with moderate inrush currents, such as certain lighting systems.
- Tripping characteristics:
BSEN 60-898 type C: magnetic setting between 5 and 10 In.
- Cable capacity: ²
1 - 25A = 25mm ²
32 - 63A = 35mm

C60HC miniature circuit breaker Part No's

Ratings (A)	1P	2P	3P	4P
1	C60HC 101	C60HC 201	C60HC 301	
2	C60HC 102	C60HC 202	C60HC 302	
4	C60HC 104	C60HC 204	C60HC 304	
6	C60HC 106	C60HC 206	C60HC 306	24876
10	C60HC 110	C60HC 210	C60HC 310	24877
16	C60HC 116	C60HC 216	C60HC 316	24878
20	C60HC 120	C60HC 220	C60HC 320	24879
25	C60HC 125	C60HC 225	C60HC 325	24880
32	C60HC 132	C60HC 232	C60HC 332	24881
40	C60HC 140	C60HC 240	C60HC 340	24882
50	C60HC 150	C60HC 250	C60HC 350	24883
63	C60HC 163	C60HC 263	C60HC 363	24884

C60HD type D

Applications

Protection and control of circuits against overloads and short circuits.

- In commercial and industrial electrical distribution systems.
- In applications with high inrush currents, such as transformers, motors, certain lighting systems etc.
- Tripping characteristics:
BSEN 60-898 type D: magnetic setting between 10 and 14 In.
- Cable capacity: ²
1 - 25A = 25mm ²
32 - 63A = 35mm

C60HD miniature circuit breakers Part No's

Ratings (A)	1P	2P	3P
1	C60HD 101	C60HD 201	C60HD 301
2	C60HD 102	C60HD 202	C60HD 302
4	C60HD 104	C60HD 204	C60HD 304
6	C60HD 106	C60HD 206	C60HD 306
10	C60HD 110	C60HD 210	C60HD 310
16	C60HD 116	C60HD 216	C60HD 316
20	C60HD 120	C60HD 220	C60HD 320
25	C60HD 125	C60HD 225	C60HD 325
32	C60HD 132	C60HD 232	C60HD 332
40	C60HD 140	C60HD 240	C60HD 340
50	C60HD 150	C60HD 250	C60HD 350
63	C60HD 163	C60HD 263	C60HD 363

Note: 2 and 4 pole C60H MCB's are suitable for installation in IsoBar 4 distribution boards with NKIT.

Electrical auxiliaries

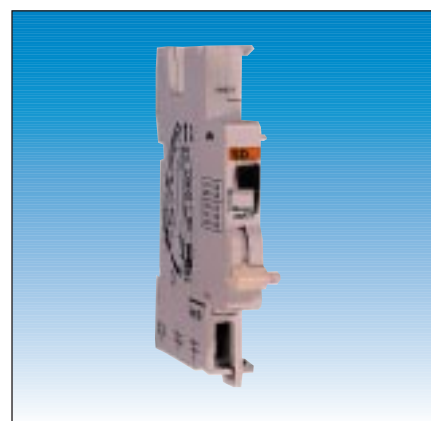
C60HB, HC, HD MCB's and V40H MCB/RCD



Auxiliary switch (OF)

- A changeover switch which acts as an indicating or control device to monitor the 'ON' or 'OFF' positions of an MCB.
- Test function.
- Mounted on the LHS of the MCB or MCB/RCD.
- Max number per MCB = 2.
- Connection diagrams: page 169.
- Cable capacity
 - 1 cable = 2.5mm²
 - 2 cables = 1.5mm²

No. of SP ways	9mm modules		Part no.
1/2	1	OF	26924
Contact rating (V)		(A)	
240 AC		6A	
415 AC		3A	
24 DC		6A	
48 DC		2A	
125 DC		1A	



Alarm switch (SD)

- An indicating device which monitors the tripping of an mcb. This device offers the following:
 - A red flag trip indicator.
 - Ability to reset without closing the MCB.
 - Test function.
 - Mounted on the LHS of the MCB or MCB/RCD.
 - Connection diagrams: page 169.
 - Cable capacity
 - 1 cable = 2.5mm²
 - 2 cables = 1.5mm²

No. of SP ways	9mm modules		Part no.
1/2	1	SD	26927
Contact rating (V)		(A)	
240 AC		6A	
415 AC		3A	
24 DC		6A	
48 DC		2A	
125 DC		1A	



Shunt trip release (MX)

- Enables remote tripping.
- Allows remote indication of the 'OFF' or 'ON' position of the mcb by using the same voltage as the one feeding the shunt trip (terminals 12 and 14).
- Is equipped with a cut-off switch in series with the coil.
- Includes one auxiliary changeover switch (OF).
- Red flag trip indicator.
- Mounted on LHS of the MCB or MCB/RCD.
- Connection diagrams: page 169.
- Cable capacity
 - 1 cable = 2.5mm²
 - 2 cables = 1.5mm²

No. of SP ways	9mm modules	Coil voltage(V)	Part no.
1	2	110/130V DC or 220/415 AC	26946
		48V DC or 48-130V AC	26947
		24V AC or DC	26948

Consumption of releases

	(V)		(W or VA)
MX	415 AC	pickup	120
	220.240 AC	pickup	50
	110.130 AC	pickup	200
	110.130 DC	pickup	10
	48 AC - DC	pickup	22
	24 AC - DC	pickup	120



Undervoltage release (MN)

- Enables miniature circuit breaker to be tripped either when the auxiliary supply voltage drops or by the opening of a normally closed remote push button.
- Prevents the mcb from being switched 'ON' again if the undervoltage release supply is not present.
- Red flag trip indicator.
- Mounted on the LHS of the MCB or MCB/RCD.
- Connection diagrams: page 169.
- Cable capacity
 - 1 cable = 2.5mm²
 - 2 cables = 1.5mm²

No. of SP ways	9mm modules	Voltage (V)	Part no.
1	2	220/240 AC	26960
		48 AC	26961
		48 DC	26962

Consumption of releases (W or VA)

MN	220.240 V AC	hold -	4.1
	48 V AC	hold -	4.3
	48 V AC	hold -	2.0

Electrical accessories C60HB, HC, HD MCB's, V40H MCB/RCD and Neutral kit



Locking attachment

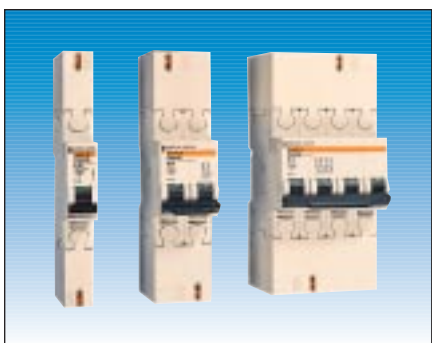
Permits padlocking of the mcb in either the 'ON' or 'OFF' position.

- **MGLA** is suitable for use with C60HB/C/D MCB's and RCBO's in distribution boards.

	Part no.
For C60H mcb's (pack of 5)	MGLA
4mm hasp padlock for MGLA	MGLAP
For MCB/RCD's	26970
For C60H MCB's (pack of 2)	20718
Padlocking with 2 keys	MGPL

MGLA is suitable for use with C60 HB/C/D mcb's in distribution boards.

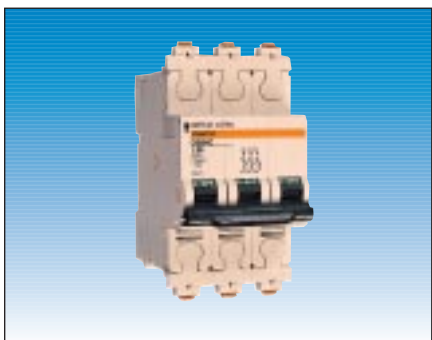
20718 is suitable for use with C60 H B/C/D mcb's in loose enclosures.



Terminal shield

Completely covers terminals and is fixed by a self retaining clip. 1P, 2P, 3P and 4P versions available, all with built-in pole separation.

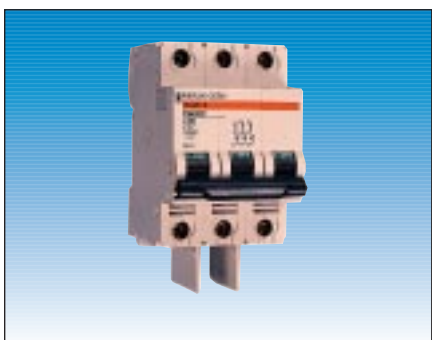
	Part no.
Pair of single pole	26975
Pair of double pole	26976
Pair of four pole	26978
Pair of three pole	26975 + 26976



Sealable terminal screw shield

Enables total shrouding of the terminal screws of 1P, 2P, 3P and 4P C60HB, C60HC and C60HD mcb's, and combinations of these with VIGI (type C60) residual current devices.

	Part no.
For use with C60H mcb's (1 bag of 8 shields)	26981
For use with add-on VIGI residual current devices (1 bag of 20 shields)	26982



Interpole barrier

Supplied in quantities of 10, they permit insulation creepage distances to be increased.

	Part no.
For C60HB, C60HC and C60HD MCB's	27001



Neutral kit

Phase conversion connector for use with C60 MCB's in Isobar 4 distribution boards.

	Part No
For C60HB, C60HC, and C60HD MCB's	NKIT

Identification system

All C60HB, C60HC and C60HD MCB's can accept up to a total of 10 marking accessories on each of their poles by fully utilising two separate locations. Refer to Telemecanique Tel: 01203 416255.

DPN+N miniature circuit breakers
for use in loose enclosures
BSEN 60898
B curve, C curve



Application

Protection and control of circuits against overloads and short circuits where switching of the neutral is required, e.g. emergency switching, caravans, construction sites, TT systems etc...

- 2 pole switching in a single pole device. Phase only protected and neutral unprotected.
- For use in commercial, industrial and domestic electrical distribution systems.

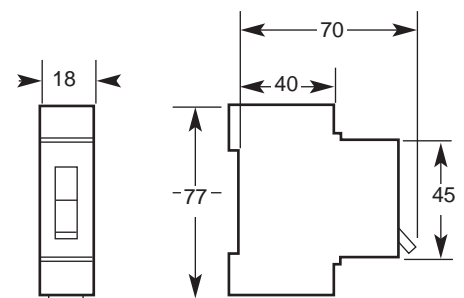
Technical data

- **Nominal voltage** 240V AC, DC consult us
- **Breaking capacity:** 6000A to BSEN 60898
- **Tripping characteristics:**
 To BSEN 60898, B curve magnetic setting between 3 and 5 In.
 C curve magnetic setting between 5 and 10 In.
- **Positive contact indication of the phase conductor in accordance with the 16th edition of the IEE Wiring Regulations BS7671.**
- Cable capacity 16mm².
- Weight 120g.
- Calibrated at 30°C.
- Installation: panel mounting on symmetrical DIN rail in Multi-service type B boards and standard enclosures.
- Connected by comb busbar as detailed on page 71.
- Padlocking in the ON/OFF position locking attachment **MGLA** padlock **MGLAP**.
- Endurance (O-C cycles)
 mechanical 20,000
 electrical ≤ 20A 20,000
 25A 15,000
 32A 10,000
 40A 6,000
- Electrical auxiliaries - as C60H MCB's OF/SD/MX/MN see page 48.

Type	Width in	Curve	Rating (A)	Part n°.
9mm mods				
DPNN 2	2	B	4	19249
		B	6	19250
		B	10	19252
		B	16	19254
		B	20	19255
		B	25	19256
		B	32	19257
DPNN 2	2	B	40	19258
		C	1	19260
		C	2	19261
		C	4	19263
		C	6	19264
		C	10	19266
		C	16	19268
C	20	19269		
C	25	19270		
C	32	19271		
C	40	19272		



■ **Dimension (mm)**



For panel mounting on symmetrical DIN rail



NC100C (5 to 10 In)

36kA (LS)	Part No.			
Ratings (A)	1P	2P	3P	4P
10	27377	27388	27399	27410
16	27378	27389	27400	27411
20	27379	27390	27401	27412
25	27380	27391	27402	27413
32	27381	27392	27403	27414
40	27382	27393	27404	27415
50	27383	27394	27405	27416
63	27384	27395	27406	27417
10kA (H)				
80	27253	27264	27275	27286
100	27254	27265	27276	27287

NC100D (10 to 14 In)

36kA (LS)	Part No.			
Ratings (A)	1 P	2P	3P	4P
10	27421	27432	27443	27454
16	27422	27433	27444	27455
20	27423	27434	27445	27456
25	27424	27435	27446	27457
32	27425	27436	27447	27458
40	27426	27437	27448	27459
50	27427	27438	27449	27460
63	27428	27439	27450	27461
10kA (H)				
80	27297	27308	27319	27330
100	27298	27309	27320	27331

- Specification information for NC100C/NC100D: for motor applications, DC applications, de-rating and 400Hz, see technical data section page 173.

Electrical auxiliaries see page 52.
Accessories see page 53.
Add-on earth leakage see page 67.
Dimensions see page 152.

Applications

Protection and control of circuits against overloads and short circuits.

- In commercial and industrial electrical distribution systems, particularly those with very high short circuit fault levels.

Technical data

- **Current ratings:** IEC 947-2
10-100 Amps at 40° C
- **Voltage ratings:** 240/415V AC
- **Breaking capacity:** IEC 947-2 (Icu)

Rating (A)	Poles	Voltage (VAC)	Breaking capacity (A)
10-63	1P	240	36000
80-100	1P	240	10000
10-63	2P/3P/4P	415	36000
80-100	2P/3P/4P	415	10000

note: Ics = 75% of Icu

■ **Tripping characteristics:**

NC100C: magnetic setting between 5 and 10 In (for general industrial and commercial installations)
NC100D: magnetic setting between 10 and 14 In (for applications with high inrush currents, eg transformers, motors, certain lighting systems etc).

■ **Cable capacity:**

Tunnel terminals 1-63A = 35mm²
80-100A = 50mm²

■ **Number of operating cycles**

(O-C): on load 20,000

■ **Operating temperature:**

-30 to +70°C

■ **Width in 9mm modules**

1P	2P	3P	4P
3	6	9	12

■ **Weight (g)**

1P	2P	3P	4P
180	360	540	720

■ **Lloyds approval** to IEC 947 2

■ **Installation** panel mounting on symmetrical DIN rail.

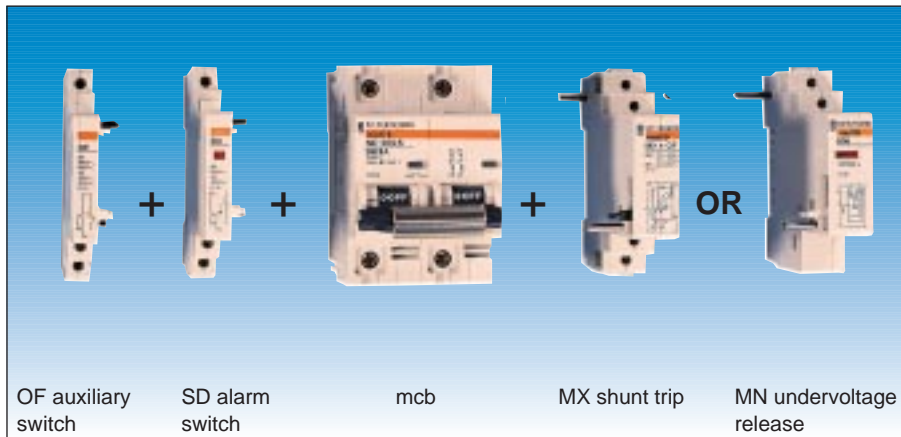
Not suitable for MGA or MGB boards.

■ **Identification system**

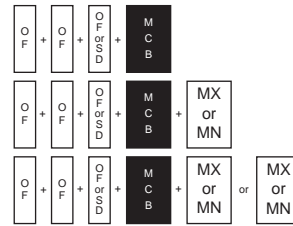
All NC100 MCB's can accept up to a total of 4 marking accessories on each of their poles. The following symbols are available:
Blank, 1-9, +, -, and A-Z.
Refer to Telemecanique 01203 416255

- **Positive contact indication:** in accordance with the 16th Edition of the IEE Wiring Regulations BS7671.

NC100C/NC100D MCB electrical auxiliaries

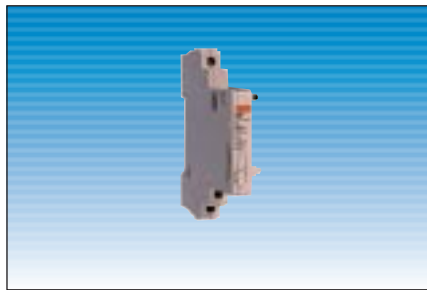


Arrangement of auxiliaries



SD must always be assembled before OF if fitted.

Connection of auxiliaries:
clamp connections for cables up to 2.5mm²



Auxiliary switch (OF)

- A changeover switch which acts as an indicating or control device to monitor the 'ON' and/or 'OFF' positions of an MCB.
- Mounted on the LHS of the MCB.

No. of SP ways	9mm modules		Part n°.
1/2	1	OF (contact ratings) (V)	27132
		240V AC	6A
		415V AC	3A
		24V DC	6A
		48V DC	2A
		125V DC	1A



Alarm switch (SD)

- An indicating device which monitors the tripping of an mcb. It can be fitted in conjunction with auxiliary switch (OF) (see above).
- Mounting on the LHS of the MCB.

No. of SP ways	9mm modules		Part n°.
1/2	1	SD (contact ratings) (V):	27135
		240V AC	6A
		415V AC	3A
		24V DC	6A
		48V DC	2A
		125V DC	1A



Shunt trip release (MX)

- Enables mcb remote tripping.
- Is equipped with a cut-off switch in series with the coil.
- Includes one auxiliary changeover switch (OF) (see above).
- Mounted on the RHS of the MCB.

No. of SP ways	9mm modules	Coil voltage (V)	Part n°.
1	2	240 to 415V AC	27136
		110 to 220VAC	
		110 to 125V DC	27137
		24 to 48VAC and DC	27138

Note: MX/MN not compatible with NC100 VIGI units.



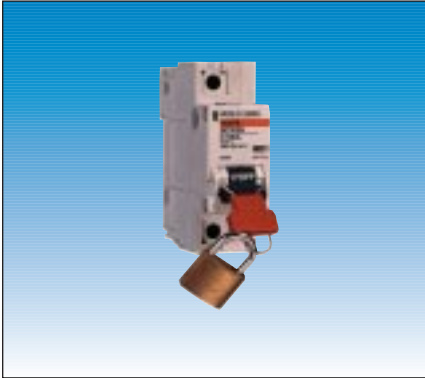
Undervoltage release (MN)

- Enables miniature circuit breakers to be tripped either when the auxiliary supply voltage drops or by the opening of a normally closed remote pushbutton.
- Prevents the MCB from being switched 'ON' again if the undervoltage release supply is not present.
- Mounted on the RHS of the MCB.
- Time delayed version - allows a break of 500ms without effect.

No. of SP ways	9mm modules	Voltage (V)	Part n°.
1	instantaneous		
	2	220/240 V AC	27140
		220/240 V DC	
1	time delayed		
	2		27143

Note: MX/MN not compatible with NC100 VIGI units.

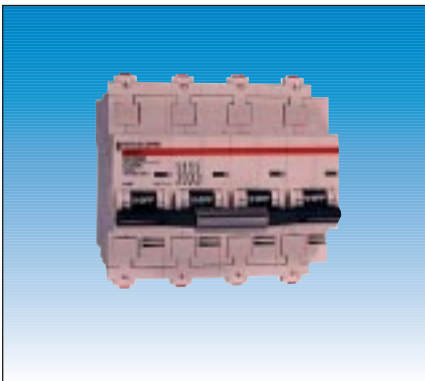
NC100C and NC100D MCB accessories



Padlocking attachment

Permits padlocking of the mcb in either the 'ON' or 'OFF' position.

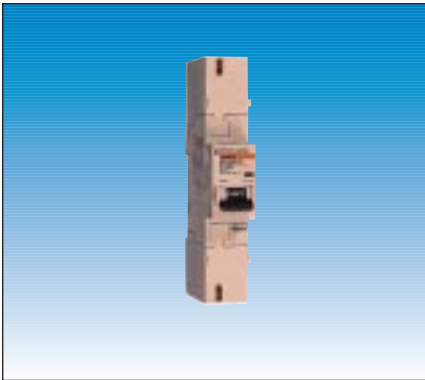
	Part n°.
For NC100C/NC100D (bag of 2 pcs)	27145
Padlock with 2 keys	MGPL
Spare key for MGPL	MGPLSK



Sealable terminal screw shield

Enables total shrouding of the terminal screws of 1P, 2P, 3P and 4P NC100C and NC100D mcb's and combinations of these with VIGI (NC100) residual current devices.

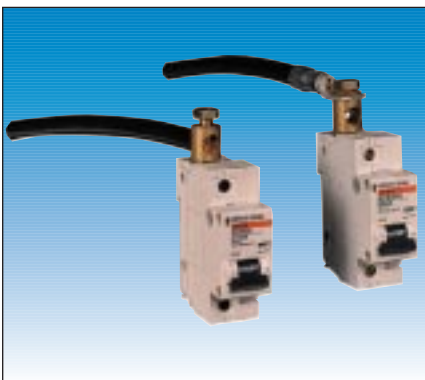
	Part n°.
For use with NC100C and NC100D mcb's (bag of 10 pcs)	27152



Sealable terminal shield

Completely covers terminals. For multi-pole mcb's - use 2 or more pairs of terminal shields.

	Part n°.
Terminal shields (pair)	27151



Terminal adaptor

Enables the mcb to be rear-connected with bare cable up to 50mm² or with cable with crimped lug; must be mounted with terminal shield (supplied).

2 terminal adaptors and terminal shields per part n°.

	Part n°.
For use with NC100C and NC100D mcb's	27153

NC100LMA motor protection circuit breaker IEC 947-2



Application

The NC100LMA (magnetic trip only) mcb ensures protection against short circuits; a starter must be linked to it to provide local control and protection against overloads.

specification: IEC 947-2.

Technical data

■ Current ratings (A):

1.6, 2.5, 4, 6.3, 10, 12.5, 16, 25, 40, 63.

■ Voltage (V): 240/415 V.

■ Breaking capacity: to IEC 947-2. Icu.

Rating A	Voltage V	Breaking capacity (Icu) (A)
1.6-63	240 415	100,000 40,000

■ For Type 2 co-ordination chart (BSEN 60947-4) please consult us.

■ Tripping characteristics:

magnetic - nominal $12 \times I_n$.

■ Cable capacity: tunnel terminals for cables up to 35mm².

■ Weight (g).

Type	2P	3P
	360	540

Installation

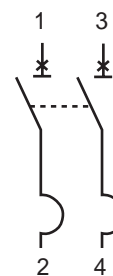
■ Panel mounting on symmetrical DIN rail, except for standard distribution boards. Suitable for use in enclosures page 131.

■ **Lloyds approval:** 1.6-40A to IEC947-2.

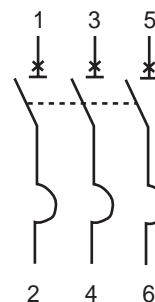
■ **Positive contact indication:** in accordance with the 16th edition of the IEE Wiring Regulations (537-02-04, 536-03) BS7671.

■ **Accessories,** see page 52.

Type	Width in mod. of 9 mm	Trip	I mag.	I max. (A)	Part n°.
2P	6	MA 1.6	20	1.6	27552
		MA 2.5	30	2.5	27553
		MA 4	50	4	27554
		MA 6.3	75	6.3	27555
		MA 10	120	10	27556
		MA 12.5	150	12.5	27557
		MA 16	190	16	27558
		MA 25	300	25	27559
		MA 40	480	40	27560
		MA 63	750	63	27561



3P	9	MA 1.6	20	1.6	27564
		MA 2.5	30	2.5	27565
		MA 4	50	4	27566
		MA 6.3	75	6.3	27567
		MA 10	120	10	27568
		MA 12.5	150	12.5	27569
		MA 16	190	16	27570
		MA 25	300	25	27571
		MA 40	480	40	27572
		MA 63	750	63	27573



P25M motor protection circuit breaker



Applications

Overload and short circuit protection for motors up to 25A rating together with the function of local manual control.

Technical data

■ Thermal release

- Current setting (In) 0.10 to 25A.
- Phase failure sensitivity.
- Temperature compensation: -20°C + 40°C in enclosures.

■ Magnetic release: 12 x In.

■ Rated voltage (Ue): 690 V AC.

■ Impulse withstand voltage (Uimp): 6kV .

■ Number of operation AC3 category: 100,000 O-C cycles.

■ Positive contact indication.

■ Padlocking facility.

■ Connection by terminal clamp

min. capacity = rigid cable 2 x 1mm²
max. capacity = flexible cable 2 x 6mm²

■ Co-ordination according to IEC 947.4 consult us.

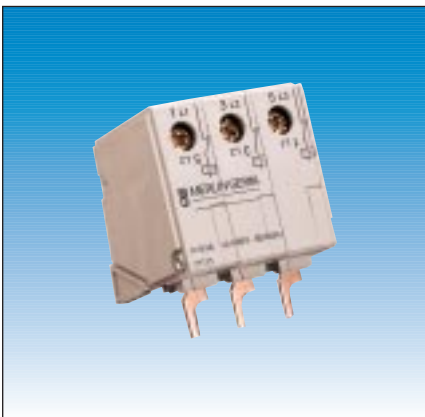
■ Approvals: CEBEC, DEMKO, NEMKO, SEMKO, FI.

■ Dimensions see page 153.

Width in mod of 9mm	Rating In (A)	Settings	Part n°.
5	0.16	0.1 - 0.16	21100
	0.25	0.16 - 0.25	21101
	0.40	0.25 - 0.40	21102
	0.63	0.40 - 0.63	21103
	1.0	0.63 - 1.0	21104
	1.6	1.0 - 1.6	21105
	2.5	1.6 - 2.5	21106
	4.0	2.5 - 4.0	21107
	6.3	4.0 - 6.3	21108
	10	6.0 - 10	21109
5	14	9.0 - 14	21110
	18	13 - 18	21111
	23	17 - 23	21112
	25	20 - 25	21113

■ Breaking capacity: IEC 947.2 (kA).

Rating (A)	Voltage (V)									
	230,240		400,415		440		500		690	
	Icu in kA	Ics in %	Icu in kA	Ics in %	Icu in kA	Ics in %	Icu in kA	Ics in %	Icu in kA	Ics in %
0.16 to 1.6	self protected									
2.5									3	75
4									3	75
6.3					50	100	50	100	3	75
10					15	100	10	100	3	75
14			15	50	8	50	6	75	3	75
18			15	50	8	50	6	75	3	75
23	50	100	15	40	6	50	4	75	3	75
25	50	100	15	40	6	50	4	75	3	75



Limiter block

Increases the breaking capacity to 100kA up to 415V. Individual mounting (upstream) or on the terminal block part n°. **21144** .

■ Connection: tunnel terminal for flexible cable up to 25mm².

■ Dimensions - see page 153.

Width in mod of 9mm	Rating In (A)	Part n°.
5	63	21115

P25M motor protection circuit breaker accessories



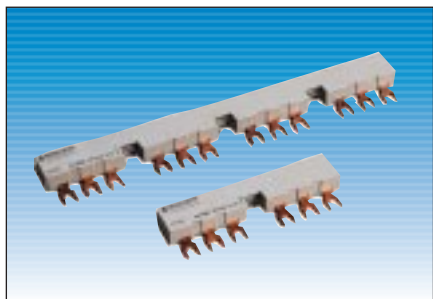
P25M insulated enclosure

(surface mounting)

can incorporate 1 x P25M with 1 x auxiliary contact and 1 x shunt or UVR release with earth and neutral terminals.

- Degree of protection: IP55.
- Double insulation
- Sealable cover.
- Indicator lamp can be installed on the front to indicate the ON or OFF position.
- 4 knock outs for cable gland \varnothing 16mm.
- **Dimensions** see page 155.

	Part no.
Enclosure	21133
Neon indicator light 220.240V	green 21140
	red 21142
Neon indicator light 380.440V	green 21141
	red 21143



Comb busbars P25M

3 Poles 63A

Power supply for several P25M up to 63A. Comb busbar versions 2 or 4 outlets and the possibility of combining comb busbar Auxiliary contacts can be installed between the P25Ms.

Comb busbar	Part no.
For 2 P25M units	21145
For 4 P25M units	21146



Terminal block

For supply of busbars with cables up to 25mm² (can be installed with limiter block).

	Part no.
End cover (bag of 5 pcs)	21148
Terminal block	21144



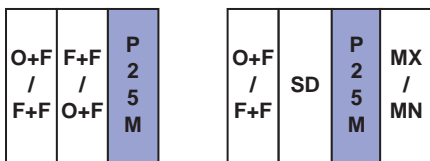
Insulated connector

To supply comb busbars or P25M directly with cables up to 25mm².

	Part no.
Insulated connector	21147

P25M motor protection circuit breaker auxiliaries

Auxiliary combination



Remote indication:

■ Position

- O+F contact indicates ON or OFF position of the P25M.
- F+F contact double contact for ON position.

■ Position + alarm indicator

with red flag trip indicator.

- F+SD.O
ON position + OFF fault indication.
- O+SD.O
OFF position + OFF fault indication.
- F+SD.F
ON position + ON fault indication.
- O+SD.F
OFF position + ON fault indication.

Technical data

Voltage Ue	Position (OF)	Fault (SD)
V AC	(A)	(A)
24		1.5
48	6	1
130	4.5	0.5
240	3.3	0.3
415	2.2	
440	1.5	
V DC	DC 13	DC 13
24	6	1
48	5	0.3
60	3	0.15
110	1.3	
220	0.5	

■ Connection by terminal clamp

- Min.: rigid cables 2 x 1 mm²
- Max.: flexible cables 2 x 2.5 mm²
- Flexible cable with cable end 2 x 1.5 mm²



Remote tripping:

- **MX shunt trip release:** trips the P25M when energised.
- **MN undervoltage release:** trips the P25M when the voltage supply drops (between 35% and 75%) and prevents reclosing until the supply voltage is restored.

■ Power consumption of releases:

	AC (V.A)	DC (W)
MX		
Pick up	14	10
Hold	5	1.6
MN		
Hold	3.5	1.1

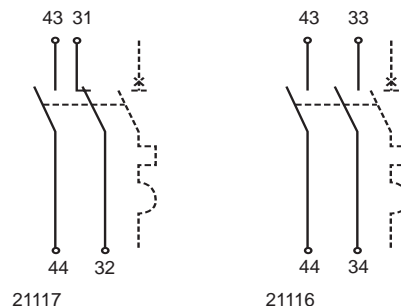
■ Connection by terminal clamp

- Min.: rigid cables 2 x 1 mm²
- Max.: flexible cables up to 2 x 2.5 mm²
- Flexible cable with cable end 2 x 1.5 mm²

Width in mod. of 9 mm

Part n°.

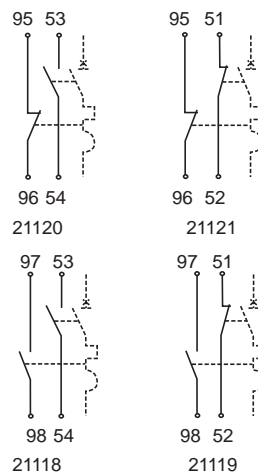
Contact position O+F	
1	21117
Contact position F+F	
1	21116



Width in mod. of 9 mm

Part n°.

Position+alarm contact F+SD.F	21118
Position+alarm contact O+SD.F	21119
Position+alarm contact F+SD.O	21120
Position+alarm contact O+SD.O	21121



Width in mod. of 9mm

Voltage (V)

Frequency (Hz)

Part n°.

	Voltage (V)	Frequency (Hz)	Part n°.
MX shunt trip release			
2	220.240	50	21127
	380.415	50	21128

Width in mod. of 9mm

Voltage (V)

Frequency (Hz)

Part n°.

	Voltage (V)	Frequency (Hz)	Part n°.
MN undervoltage release			
2	220.240	50	21129
	380.415	50	21130