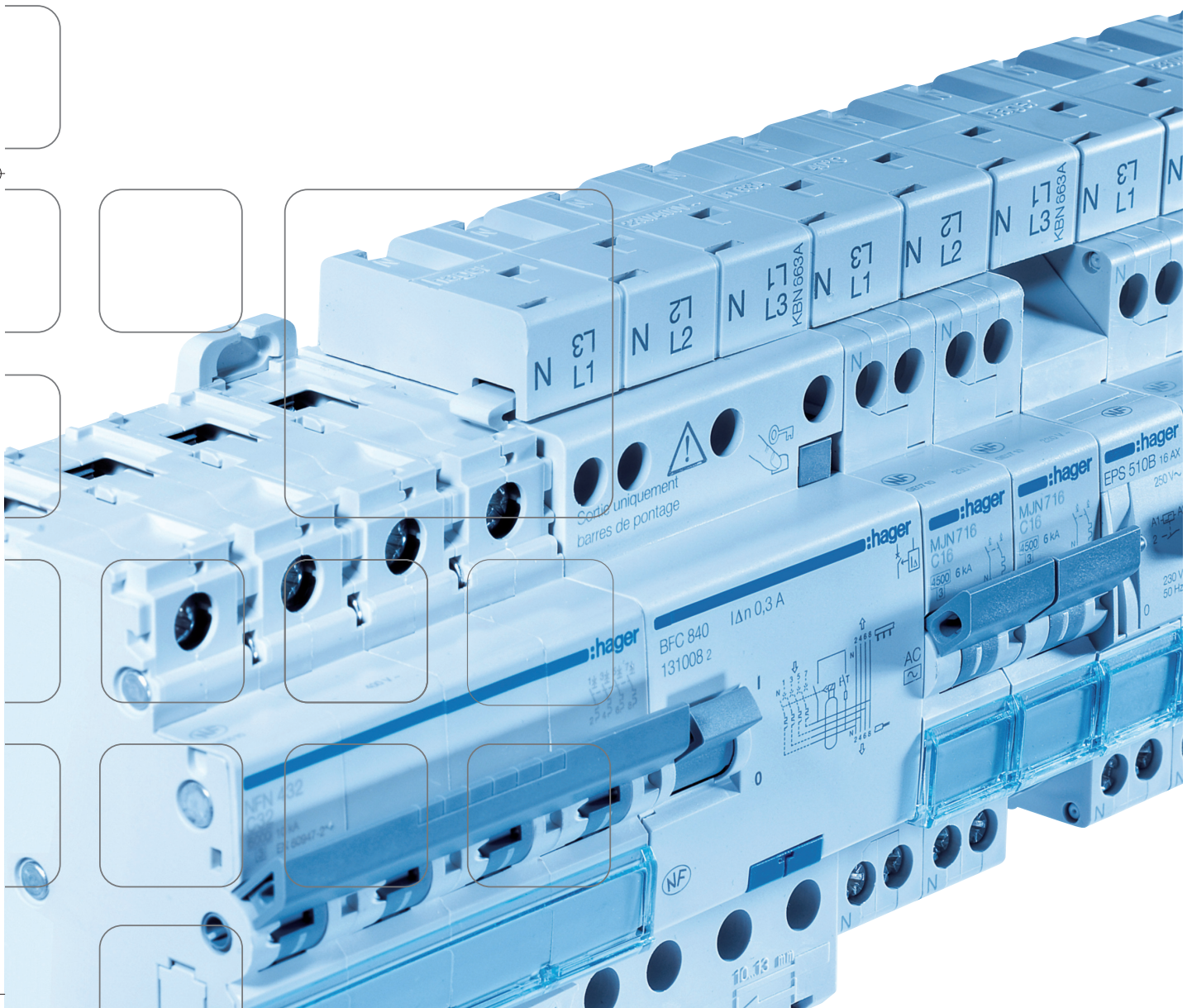


Protection devices

the complete solution

Hager offers a wide range of protection devices, such as miniature circuit breakers, auxiliaries and accessories, RCD add-on blocks, 2 and 4 pole RCCBs, RCCB auxiliaries, RCBOs, HRC fuse carriers, motor starters, earth leakage relays and surge protection devices.



Miniature circuit breakers	C3
Remote control auxiliary	C16
Auxiliaries and accessories for MCBs & RCCBs	C17
RCD add-on blocks (63A)	C23
RCD add-on blocks type AC, type A & HI for circuit breakers HLE, HMB, HMC, HMD, HMK, HMX	C24
2 & 4 pole residual current devices (RCCBs)	C26
RCCBs selective product range type S (delay)	C27
RCCB - HI (high immunity) series type A	C27
RCCB - electronic	C27
Combined MCB/RCD (RCBO) 6kA	C28
Combined MCB/RCD (RCBO) 10kA	C29
RCBO 4P	C30
RCBO - electronic	C31
Earth leakage relays & torroidal transformers	C35



Miniature circuit breakers

4.5kA type C - MY



Description

Protection and control of circuits against overloads and short circuits in domestic, commercial and industrial applications.

Technical data

C curve tripping
Current rating : 1-63A

Breaking capacity :

4.5kA IEC 60 898
6kA IEC 60 947-2
10KAIC NEMA AB-1
Reference calibration
Temperature : 30°C
Voltage rating : 230/400V
Mechanical endurance :
20 000 operations

Connection capacity :


25mm² rigid conductor
16mm² flexible conductor
Will accept accessories, shunt trips, auxiliary contact.
see page 18

Approval :

KEMA
ST, SNI, LMK




MY106E

Designation	In/A	Width in 17.5mm	Pack qty.	Cat. Ref
Single pole MCB 	1	1	12	MY101E
	2	1	12	MY102E
	3	1	12	MY103E
	4	1	12	MY104E
	6	1	12	MY106E
	10	1	12	MY110E
	16	1	12	MY116E
	20	1	12	MY120E
	25	1	12	MY125E
	32	1	12	MY132E
	40	1	12	MY140E
	50	1	12	MY150E
	63	1	12	MY163E




MY232E

Designation	In/A	Width in 17.5mm	Pack qty.	Cat. Ref
Double pole MCB 	1	2	6	MY201E
	2	2	6	MY202E
	3	2	6	MY203E
	4	2	6	MY204E
	6	2	6	MY206E
	10	2	6	MY210E
	16	2	6	MY216E
	20	2	6	MY220E
	25	2	6	MY225E
	32	2	6	MY232E
	40	2	6	MY240E
	50	2	6	MY250E
	63	2	6	MY263E



MY316E

Designation	In/A	Width in 17.5mm	Pack qty.	Cat. Ref
Triple pole MCB 	1	3	4	MY301E
	2	3	4	MY302E
	3	3	4	MY303E
	4	3	4	MY304E
	6	3	4	MY306E
	10	3	4	MY310E
	16	3	4	MY316E
	20	3	4	MY320E
	25	3	4	MY325E
	32	3	4	MY332E
	40	3	4	MY340E
	50	3	4	MY350E
	63	3	4	MY363E





Miniature circuit breakers 6kA type B & C - MT MU



Description

Protection and control of circuits against overloads and short circuits in domestic, commercial and industrial applications.

Technical data

MTxxxA = type B tripping
MUxxxA = type C tripping
according to IEC 60 898 and
BSEN 60-898

Reference calibration
Temperature : 30°C

Breaking capacity :

6kA IEC 60 898
10kA IEC 60 947-2
Voltage rating : 230/400V
Current rating : 2-63A
Mechanical endurance :
20 000 operations


Connection capacity :

25mm² rigid conductor
16mm² flexible conductor

Will accept accessories, shunt trips, auxiliary contact.


Approval :

KEMA
SNI
LMK

Designation	In/A	Width in ■ 17.5mm	Pack qty.	Cat. Ref. B curve	Cat. Ref. C curve
 Single pole MCB	2	1	12	-	MU102A
	4	1	12	-	MU104A
	6	1	12	MT106A	MU106A
	10	1	12	MT110A	MU110A
	16	1	12	MT116A	MU116A
	20	1	12	MT120A	MU120A
	25	1	12	MT125A	MU125A
	32	1	12	MT132A	MU132A
	40	1	12	MT140A	MU140A
	50	1	12	MT150A	MU150A
	63	1	12	MT163A	MU163A




MT106A

 Double pole MCB	2	2	6	-	MU202A
	4	2	6	-	MU204A
	6	2	6	MT206A	MU206A
	10	2	6	MT210A	MU210A
	16	2	6	MT216A	MU216A
	20	2	6	MT220A	MU220A
	25	2	6	MT225A	MU225A
	32	2	6	MT232A	MU232A
	40	2	6	MT240A	MU240A
	50	2	6	MT250A	MU250A
	63	2	6	MT263A	MU263A



MT232A

 Triple pole MCB	2	3	4	-	MU302A
	4	3	4	-	MU304A
	6	3	4	MT306A	MU306A
	10	3	4	MT310A	MU310A
	16	3	4	MT316A	MU316A
	20	3	4	MT320A	MU320A
	25	3	4	MT325A	MU325A
	32	3	4	MT332A	MU332A
	40	3	4	MT340A	MU340A
	50	3	4	MT350A	MU350A
	63	3	4	MT363A	MU363A



MT363A





Miniature circuit breakers

10kA type B & C - NB NC

**Description**

Protection and control of circuits against overloads and short circuits in domestic, commercial and industrial electrical distribution systems.

Technical data

NBxxxA = type B tripping
NCxxxA = type C tripping
according to IEC 60 898 and
BSEN 60-898

Breaking capacity :

10kA according to IEC 60 898
15kA according to IEC 60 947-2

Reference calibration

Temperature : 30°C
Voltage rating : 230/400V

Current rating : 0.5 - 63A

Mechanical endurance :
20 000 operations

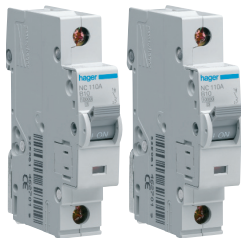



Positive contact indication

Red - contacts closed

Green - contacts open

Will accept accessories, shunt
trips, auxiliary contact.

Connection capacity25mm² rigid conductor16mm² flexible conductor

Designation	In/A	Width in ■ 17.5mm	Pack qty.	Cat. Ref. B curve	Cat. Ref. C curve
Single pole MCB					
 NB110A NC110A	0.5	1	12	-	NC100A
	1	1	12	-	NC101A
	2	1	12	-	NC102A
	3	1	12	-	NC103A
	4	1	12	-	NC104A
	6	1	12	NB106A	NC106A
	10	1	12	NB110A	NC110A
	16	1	12	NB116A	NC116A
	20	1	12	NB120A	NC120A
	25	1	12	NB125A	NC125A
	32	1	12	NB132A	NC132A
	40	1	12	NB140A	NC140A
	50	1	12	NB150A	NC150A
63	1	12	NB163A	NC163A	
Double pole MCB					
 NC210A	0.5	2	6	-	NC200A
	1	2	6	-	NC201A
	2	2	6	-	NC202A
	3	2	6	-	NC203A
	4	2	6	-	NC204A
	6	2	6	NB206A	NC206A
	10	2	6	NB210A	NC210A
	16	2	6	NB216A	NC216A
	20	2	6	NB220A	NC220A
	25	2	6	NB225A	NC225A
	32	2	6	NB232A	NC232A
	40	2	6	NB240A	NC240A
	50	2	6	NB250A	NC250A
	63	2	6	NB263A	NC263A
	Triple pole MCB				
 NC310A	0.5	3	4	-	NC300A
	1	3	4	-	NC301A
	2	3	4	-	NC302A
	3	3	4	-	NC303A
	4	3	4	-	NC304A
	6	3	4	NB306A	NC306A
	10	3	4	NB310A	NC310A
	16	3	4	NB316A	NC316A
	20	3	4	NB320A	NC320A
	25	3	4	NB325A	NC325A
	32	3	4	NB332A	NC332A
	40	3	4	NB340A	NC340A
	50	3	4	NB350A	NC350A
63	3	4	NB363A	NC363A	
Four pole MCB					
 NB410A	0.5	4	3	-	NC400A
	1	4	3	-	NC401A
	2	4	3	-	NC402A
	3	4	3	-	NC403A
	4	4	3	-	NC404A
	6	4	3	NB406A	NC406A
	10	4	3	NB410A	NC410A
	16	4	3	NB416A	NC416A
	20	4	3	NB420A	NC420A
	25	4	3	NB425A	NC425A
	32	4	3	NB432A	NC432A
	40	4	3	NB440A	NC440A
	50	4	3	NB450A	NC450A
63	4	3	NB463A	NC463A	



Miniature circuit breakers for commercial and industrial electrical installation systems



MCBs rating from 0.5 to 63A curve "D"

These miniature circuit breakers are used in commercial and industrial electrical distribution systems.

MCBs ensure the protection against short circuit and overload current and the control and isolation of circuits.

Curve D tripping:

10 to 20 times the rated current: for installations containing loads with high inrush currents (motors, transformers, ...)

Ranges:

NDN curve "D" 10000
IEC 60 898 15kA IEC 60947-2
from 0.5 to 63A

The new architecture of terminal guarantees an excellent grip of the cables and a good tightening comfort.

The pull up terminal is a foolproof terminal which allows:

- to avoid a bad insertion of cables in the product
- to guide the cable in the terminal

The tripping mechanism is totally new with a fast system of closing, the withstand of contacts on all type of loads is increased.

On the MCB, the state of isolation (according to IEC 60 947-2) is clearly indicated by the "OFF" mechanical position on the toggle with green colour.

NDN range

Busbar connection:

- on the top with prong busbar
- on the bottom, the MCBs are equipped with bi-connect terminals which allow connection with a fork busbar and a supply cable in the terminal. The busbar clip-on mechanically onto the casing of the MCB.

Top and bottom removability: thanks to new Din clips, an MCB can be added or removed easily in a row of products connected together with a busbar in case of maintenance or extension

Identification of the electrical circuits can be easily done on the front of all MCBs thanks to a specific window on each product.

Voltage rating: 230/400V AC

Insulation voltage (Ui): 630V

Impulse voltage (Uimp): 6kV

Durability: 20,000 cycles (O-C)

Calibration temperature: 30°C

Connection capacity:
- 25mm² flexible conductor
- 35mm² rigid conductor
Foolproof terminal design

Tightening torque:
4 Nm nominal

Screw head: PZ2 and slot 6mm

IP rating: IP2x terminals

Standard 35mm DIN rail

Option:

Auxiliaries:

- allows remote indication of main contact position
- allows remote tripping of the associated device

Locking kit to lock the toggle in the ON or OFF position

Terminal & screw shield and interpole barrier

RCD add-on block

Busbar and connection accessories

Breaking capacity according to IEC60898 & IEC60947-2

Number of poles	Voltage(V)	NDN	Breaking
		Breaking capacity Icn IEC 60 898	Breaking capacity Icu IEC 60 947-2
1P	230 to 240	10,000	15kA
	400 to 415	-	-
2P, 3P, 4P	230 to 240	-	30kA
	400 to 415	10,000	15kA

Breaking capacity according to IEC60947-2 for low ratings

In	NDN
	Breaking capacity Icu IEC 60 947-2
0.5 - 2A	80kA
3A - 4A	50kA
6A	30kA

Miniature circuit breakers

D curve: IEC 60898: 10000 and IEC 60947-2: 15KA



Description

Protection and control of circuits against overloads and short circuits in commercial and industrial electrical distribution systems.

Technical data

NDNxxxA = type D tripping according to IEC 60 898

Breaking capacity :

10kA according to IEC 60 898
15kA according to IEC 60 947-2
30kAIC according to NEMA AB-1
Reference calibration
Temperature : 30°C
Voltage rating : 230/400V
Current rating : 0.5 - 63A
Mechanical endurance :
20 000 operations

Positive contact indication


Red - contacts closed
Green - contacts open
Will accept accessories, shunt trips, auxiliary contact.

Connection capacity

25mm² rigid conductor
16mm² flexible conductor




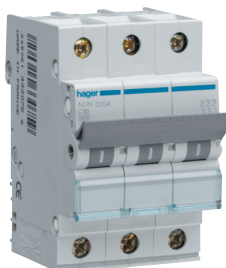
NDN116A

Designation	In/A	Width in 17.5mm	Pack qty.	Cat. Ref.
Single pole MCB 	0.5	1	12	NDN100A
	1	1	12	NDN101A
	2	1	12	NDN102A
	3	1	12	NDN103A
	4	1	12	NDN104A
	6	1	12	NDN106A
	10	1	12	NDN110A
	16	1	12	NDN116A
	20	1	12	NDN120A
	25	1	12	NDN125A
	32	1	12	NDN132A
	40	1	12	NDN140A
	50	1	12	NDN150A
	63	1	12	NDN163A




NDN 232A

Designation	In/A	Width in 17.5mm	Pack qty.	Cat. Ref.
Double pole MCB 	0.5	2	6	NDN200A
	1	2	6	NDN201A
	2	2	6	NDN202A
	3	2	6	NDN203A
	4	2	6	NDN204A
	6	2	6	NDN206A
	10	2	6	NDN210A
	16	2	6	NDN216A
	20	2	6	NDN220A
	25	2	6	NDN225A
	32	2	6	NDN232A
	40	2	6	NDN240A
	50	2	6	NDN250A
	63	2	6	NDN263A



NDN320A

Designation	In/A	Width in 17.5mm	Pack qty.	Cat. Ref.
Triple pole MCB 	0.5	3	4	NDN300A
	1	3	4	NDN301A
	2	3	4	NDN302A
	3	3	4	NDN303A
	4	3	4	NDN304A
	6	3	4	NDN306A
	10	3	4	NDN310A
	16	3	4	NDN316A
	20	3	4	NDN320A
	25	3	4	NDN325A
	32	3	4	NDN332A
	40	3	4	NDN340A
	50	3	4	NDN350A
	63	3	4	NDN363A




Miniature circuit breakers

D curve: IEC 60898: 10000 and IEC 60947-2: 15KA



NDN463A

Designation	In/A	Width in 17.5mm	Pack qty.	Cat. Ref.
Four pole MCB 	0.5	4	3	NDN400A
	1	4	3	NDN401A
	2	4	3	NDN402A
	3	4	3	NDN403A
	4	4	3	NDN404A
	6	4	3	NDN406A
	10	4	3	NDN410A
	13	4	3	NDN413A
	16	4	3	NDN416A
	20	4	3	NDN420A
	25	4	3	NDN425A
	32	4	3	NDN432A
	40	4	3	NDN440A
	50	4	3	NDN450A
	63	4	3	NDN463A



Accessories for miniature circuit breaker NDN and NRN



MZN120

Designation	Pack qty.	Cat. Ref.
Terminal shield/screw shield Prevents access to device terminals this accessory can be sealed on each pole	4	MZN120



MZN121

Designation	Pack qty.	Cat. Ref.
Inter-pole barrier Allows a clear isolation between poles depending on the connection used	1 set of 3 inter-pole barriers	MZN121



Miniature circuit breakers 15 to 25kA type C - NRN



Type C tripping 25kA ($\leq 25A$)
20kA (32-40A)
15kA (50-63A)

to IEC 60947-2

Current rating:
0.5 to 63A

Tripping curve:
Type C magnetic setting


Applications:
Commercial and industrial applications.

Connection capacity
16mm² flexible conductor
25mm² rigid conductor
Complies with IEC 60 947-2

Accessories
- RCDs add-on blocks
- Auxiliaries




NRN116

Designation	Breaking capacity kA	In/A	Width in 17.5mm	Pack qty.	Cat. Ref.
Single pole MCB 	25	0.5	1	12	NRN100
	25	1	1	12	NRN101
	25	2	1	12	NRN102
	25	3	1	12	NRN103
	25	4	1	12	NRN104
	25	6	1	12	NRN106
	25	10	1	12	NRN110
	25	16	1	12	NRN116
	25	20	1	12	NRN120
	25	25	1	12	NRN125
	20	32	1	12	NRN132
	20	40	1	12	NRN140
	15	50	1	12	NRN150
	15	63	1	12	NRN163




NRN232

Designation	Breaking capacity kA	In/A	Width in 17.5mm	Pack qty.	Cat. Ref.
Double pole MCB 	25	0.5	2	6	NRN200
	25	1	2	6	NRN201
	25	2	2	6	NRN202
	25	3	2	6	NRN203
	25	4	2	6	NRN204
	25	6	2	6	NRN206
	25	10	2	6	NRN210
	25	16	2	6	NRN216
	25	20	2	6	NRN220
	25	25	2	6	NRN225
	20	32	2	6	NRN232
	20	40	2	6	NRN240
	15	50	2	6	NRN250
	15	63	2	6	NRN263




NRN320

Designation	Breaking capacity kA	In/A	Width in 17.5mm	Pack qty.	Cat. Ref.
Triple pole MCB 	25	0.5	3	4	NRN300
	25	1	3	4	NRN301
	25	2	3	4	NRN302
	25	3	3	4	NRN303
	25	4	3	4	NRN304
	25	6	3	4	NRN306
	25	10	3	4	NRN310
	25	16	3	4	NRN316
	25	20	3	4	NRN320
	25	25	3	4	NRN325
	20	32	3	4	NRN332
	20	40	3	4	NRN340
	15	50	3	4	NRN350
	15	63	3	4	NRN363



NRN440

Designation	Breaking capacity kA	In/A	Width in 17.5mm	Pack qty.	Cat. Ref.
Four pole MCB 	25	0.5	4	3	NRN400
	25	1	4	3	NRN401
	25	2	4	3	NRN402
	25	3	4	3	NRN403
	25	4	4	3	NRN404
	25	6	4	3	NRN406
	25	10	4	3	NRN410
	25	16	4	3	NRN416
	25	20	4	3	NRN420
	25	25	4	3	NRN425
	20	32	4	3	NRN432
	20	40	4	3	NRN440
	15	50	4	3	NRN450
	15	63	4	3	NRN463

Miniature circuit breakers type C SP & N - ML



Description

Protection and control of circuits against overloads and short circuits.

Technical data


Type C tripping characteristics
Breaking capacity :
6000A to IEC 60 898
Voltage rating : 230V
Current rating : 6-32A

Connection capacity

16mm² rigid cables
10mm² flexible cables + busbars



ML516J

Designation	In/A	Width in 17.5mm	Pack qty.	Cat. Ref.
SP&N MCB - 6kA	6	1	12	ML506J
SP&N	10	1	12	ML510J
	16	1	12	ML516J
	20	1	12	ML520J
	25	1	12	ML525J
	32	1	12	ML532J

Miniature circuit breakers

80-125A



Thermal magnetic circuit breakers

curves "B" - "C" - "D"

In 80 to 125 A

These circuit breakers are intended for the protection of the circuits against overloads and short circuits in professional premises (from residential to commercial and industrial premises).

The circuit breakers curve "B" are particularly recommended for the circuits with long cable length and for residential loads with low in-rush current. The circuit breakers curve "C" are adapted to the protection of the circuits in professional premises.

The circuit breakers curve "D" are particularly adapted to the protection of the circuits where the installations are subject to high in-rush currents.

- **HMB curve "B"** 15000
15 kA of 80 - 100 - 125 A :
width 1.5 I / pole

- **HMC curve "C"** 15000
15 kA of 80 - 100 - 125 A :
width 1.5 I / pole

- **HMD curve "D"** 15000
15 kA of 80 - 100 - 125 A :
width 1.5 I / pole

- **HMK curve "C"**
30 kA of 80 - 100 - 125 A :
width 1.5 I / pole

- **HMX curve "C"**
50 kA of 16 - 63 A :
width 1.5 I / pole

- **HLE curve "B"** 10000
10 kA of 80 - 100 - 125 A :
width 1.5 I / pole

- **HLF curve "C"** 10000
10 kA of 80 - 100 - 125 A :
width 1.5 I / pole

These circuit breakers are equipped with reinforced screw cages.

A label holder is integrated under the handle to ensure the location of the product.

Suitable for isolation (according to IEC 60947-2) : the isolation of the circuit breakers is indicated by a green indicator on the handle.

These circuit breakers have quick closing : fast and simultaneous closing of the contacts, independent of the handling speed.

That increases the life of the circuit breaker whatever the type of load.

Nominal voltage : 230/400 V ~

insulation voltage: 630 V

Options :

- Auxiliary :
 - to visualise the state ON or OFF of the circuit breaker,
 - to ON/OFF remotely the circuit breaker

- Locking mechanism

- Terminal covers and phase separators

- RCD add-on blocks

- Disassembly capability : Bistable DIN-rail latches (2 positions) upstream and downstream facilitate the assembly or the disassembling of the circuit breakers on the DIN-rail.

These circuit breakers are equipped with screw cages with tightening compensation, reinforcement cage, cable holding jaws. These elements contribute to an effective cable tightening over time.

- These circuit breakers are equipped with cable terminals of type "fast on" upstream and downstream to feed an auxiliary low voltage circuit (indicating lights, auxiliary control...)
Max. circuit 6A 6 mm² maxi.

- Lockable handle
MCB can be locked in "Off" position by the integrated locking facility on the handle. This lock allows to insert a 2.5-3.5mm plastic cable tie where you can fit a warning card if necessary and allows a safer working environment for all personnel.

- RCD Add-on blocks, simple, quick, adjustable and fixed
 1. assembly
 2. connection
 3. locking
the assembly of the add-on block is carried out very quickly and easily. Simple and fast : it is a Hager innovation. add-on blocks 125A are available in fixed version and adjustable version.

Model	Icc/Curve	Accessories	Fast-on connection	Tightening comp. system	Lockable handle	Front product labelling
HLE / HLF	10kA / B, C	YES	NO	NO	NO	YES
HMB / HMC HMD	15kA / B, C, D	YES	YES	YES	YES	YES
HMK	30kA / C	YES	YES	YES	YES	YES
HMX	50kA / C	YES	YES	YES	YES	YES



Miniature circuit breakers 80-125A HLE, HLF; "B"- "C" 10000 - 10kA



Curves "B" and "C" 10000

IEC 60898-1

10 kA

IEC 60 947-2

Tripping curves :

"B" magnetic setting between
3 and 5 I_n"C" magnetic setting between
5 and 10 I_n

Connection capacity :

- 35mm² flexible wire
(50mm² possible with some
cable end-caps),
- 70mm² rigid wire





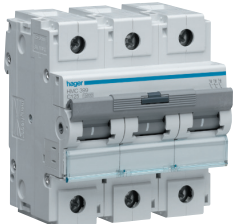

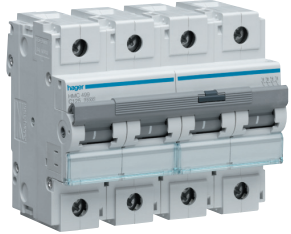

In 80 to 125 A

Use :

Residential, commercial and
industrial premises

KEMA

In conformity with the
IEC 60 898-1, 947-2 approved

Designation	In / A	Width in 17.5 mm	Cat. Ref. curve B	Cat. Ref. curve C
 HLF199S	Circuit breakers 1 pole			
		80	1.5	HLE180S HLF180S
		100	1.5	HLE190S HLF190S
	125	1.5	HLE199S HLF199S	
 HLF299S	Circuit breakers 2 pole			
		80	3	HLE280S HLF280S
		100	3	HLE290S HLF290S
	125	3	HLE299S HLF299S	
 HLF399S	Circuit breakers 3 pole			
		80	4.5	HLE380S HLF380S
		100	4.5	HLE390S HLF390S
	125	4.5	HLE399S HLF399S	
 HLF499S	Circuit breakers 4 pole			
		80	6	HLE480S HLF480S
		100	6	HLE490S HLF490S
	125	6	HLE499S HLF499S	





Miniature circuit breakers 80-125A HMB, HMC, HMD; "B", "C", "D" 15000 - 15kA



Curves "B", "C" and "D" 15000
IEC 60 898-1
15 kA
IEC 60 947-2

Tripping curves :
"B" type between 3 and 5 In
"C" type between 5 and 10 In
"D" mtype between 10 and 20 In


Connection capacity :
- 35mm² flexible wire
(50mm² possible with some cable end-caps)
- 70mm² rigid wire

In 80 to 125 A

Use :
Residential, commercial and industrial premises

KEMA
In conformity with the IEC 60 898-1, 947-2 approved

Designation	In / A	Width in ■ 17.5 mm	Cat. Ref. curve B	Cat. Ref. curve C	Cat. Ref. curve D
-------------	--------	-----------------------	----------------------	----------------------	----------------------

	Circuit breakers 1 pole	80	1.5	HMB180	HMC180	HMD180
		100	1.5	HMB190	HMC190	HMD190
		125	1.5	HMB199	HMC199	HMD199




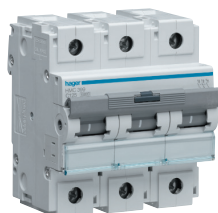
HMC199

	Circuit breakers 2 pole	80	3	HMB280	HMC280	HMD280
		100	3	HMB290	HMC290	HMD290
		125	3	HMB299	HMC299	HMD299



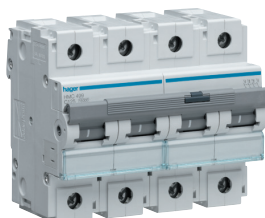
HMC299

	Circuit breakers 3 pole	80	4.5	HMB380	HMC380	HMD380
		100	4.5	HMB390	HMC390	HMD390
		125	4.5	HMB399	HMC399	HMD399



HMC399

	Circuit breakers 4 pole	80	6	HMB480	HMC480	HMD480
		100	6	HMB490	HMC490	HMD490
		125	6	HMB499	HMC499	HMD499



HMC499





Miniature circuit breakers HMK; "C" - 30kA



Curve "C"
30 kA

Voltage:
230/400V - 50/60Hz

Connection capacity:
- 35mm² flexible wire
- 50mm² rigid wire

In 80 to 125A

Use:
Commercial and industrial
premises

In conformity with the
IEC 60 947-2

Magnetic tripping curve between
5 and 10 In

Designation	In/A	Width in 17.5mm	Pack. qty.	Cat. Ref.
-------------	------	--------------------	---------------	-----------



HMK199

Circuit breakers 1 pole



80

1.5

1

HMK180

100

1.5

1

HMK190

125

1.5

1

HMK199

Circuit breakers 2 pole



80

3

1

HMK280

100

3

1

HMK290

125

3

1

HMK299



HMK299

Circuit breakers 3 pole



80

4.5

1

HMK380

100

4.5

1

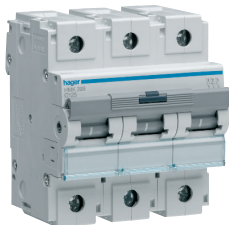
HMK390

125

4.5

1

HMK399



HMK399

Circuit breakers 4 pole



80

6

1

HMK480

100

6

1

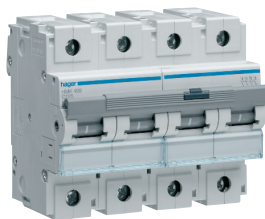
HMK490

125

6

1

HMK499



HMK499





Miniature circuit breakers

HMX; "C" - 50kA



Curve "C" 50kA

In 10 to 63A

Magnetic setting between 5 and 10 In


Voltage:
230/400V - 50/60Hz

Use:
commercial and industrial premises

Connection capacity:

- 35mm² flexible wire
- 50mm² rigid wire

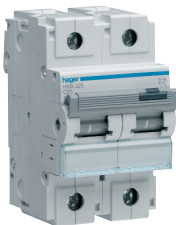
In conformity with the IEC 60 947-2

Designation	In/A	Width in 17.5mm	Pack. qty.	Cat. Ref. C curve
Circuit breakers 1 pole				
	10	1.5	1	HMX110
	16	1.5	1	HMX116
	20	1.5	1	HMX120
	25	1.5	1	HMX125
	32	1.5	1	HMX132
	40	1.5	1	HMX140
	50	1.5	1	HMX150
63	1.5	1	HMX163	



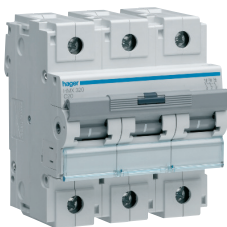
HMX120

Circuit breakers 2 pole				
	10	3	1	HMX210
	16	3	1	HMX216
	20	3	1	HMX220
	25	3	1	HMX225
	32	3	1	HMX232
	40	3	1	HMX240
	50	3	1	HMX250
	63	3	1	HMX263



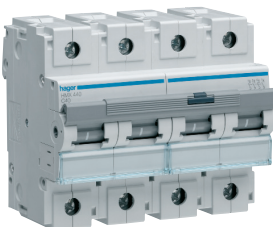
HMX225

Circuit breakers 3 pole				
	10	4.5	1	HMX310
	16	4.5	1	HMX316
	20	4.5	1	HMX320
	25	4.5	1	HMX325
	32	4.5	1	HMX332
	40	4.5	1	HMX340
	50	4.5	1	HMX350
	63	4.5	1	HMX363



HMX320

Circuit breakers 4 pole				
	10	6	1	HMX410
	16	6	1	HMX416
	20	6	1	HMX420
	25	6	1	HMX425
	32	6	1	HMX432
	40	6	1	HMX440
	50	6	1	HMX450
	63	6	1	HMX463



HMX440





Accessories for circuit breakers 80 to 125A and HMX



MZN130



MZN131

Designation	Characteristics	Cat. Ref.
Terminal covers/ screw cap	Allows to cover connection terminals, screws of circuit breakers. The screw covers can be sealed	MZN130
Phase separator	1 set of 3 phase separators	MZN131

Remote control auxiliary

These products are remote control auxiliaries for modular protection devices (MCB, RCCB, RCBO).

They allow:

- to operate by remote control the closing and opening contacts of the associated device (MCB, RCD and RCBO).
- to indicate the state of contacts and the tripping of the associated product.

The product MZ911, MZ912 has a further function which allows a second automatic tripping when fault current.

Particular functioning modes

- power interruption:
When the power is interrupted, the product saves its state (time delays, handle position & number of trippings) in order to reset when the power supply returns.

During the interruptions the indicator light and the contacts "a" and "b" are open.

If a control disappears during an interruption, it is not executed when there is supply.

- soldered contacts on the associated product:
In this case, the handle of the remote auxiliary positions itself in the centre as the handle of the associated device.

This state is indicated by:

- "a" and "b" contacts opening.
- the indicator light is intermittent red.

- forced remote closing:
When "on" or automatic reclosing are jammed, the controled device has tripped 3 times or a time delay (3 mins or 30 secs) is present, it is possible to reactivate them.

To unjam "on" remotely, we must activate "reset" position (for 5 s) until a green indicator light appears.

To reinitialise the automatic resetting remotely, activate "reset" and then "on".

To reinitialise locally, hold the side selector.

- remote control impossible when tripping (overloads or short-circuits):

It is impossible to impose a manual setting after tripping. To reset, cable the contacts "a" and "b" in order and connect them on "reset" control (input "6").

Connection capacity

- Up:
Rigid conductor: 1.5 to 10mm²
Flexible conductor: 1 to 6mm²
- Down:
Rigid conductor: 2 to 2.5mm²
Flexible conductor: 2 to 2.5mm²

Complies with EN 50-5557.

Designation	Characteristics	Width in 17.5mm	Pack. qty.	Cat. Ref.
Auto reclosing remote control auxiliaries	for 1, 2, 3, 4 pole MCBs, RCBOs, RCCB, - with or without add-on-block - IP20	3	1	MZ911
	for 1, 2, 3, 4 pole MCBs, RCBOs, RCCB, - with or without add-on-block	3	1	MZ912



MZ911
MZ912

- When using MZ911/ MZ912 with RCCB, the devices will be pre-assembled by hager factory. Contact hager office when placing order.



Auxiliaries and accessories for MCBs & RCCBs


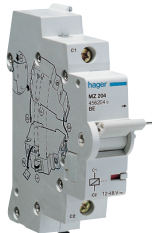
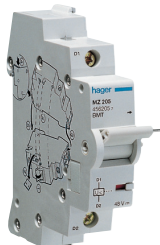



All auxiliaries are common to both single and multi-pole circuit breakers. These auxiliaries are fitted to the left hand side of devices.

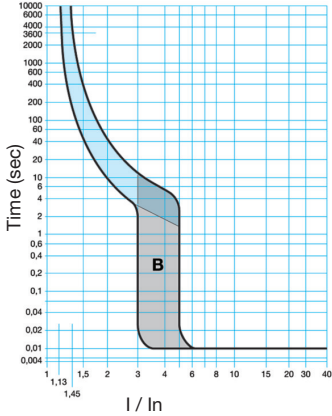
Fault indication, auxiliaries, shunt trips, and under-voltage releases are fitted with a flag indicator that indicates the auto-matic/remote tripping of the device.

Test mode for CZ001, MZ201, MZ202 : possible to test cabling of auxiliary circuits operation by tripping-over contacts manually. Resetting of contact occurs simultaneously with MCB/RCCB resetting.

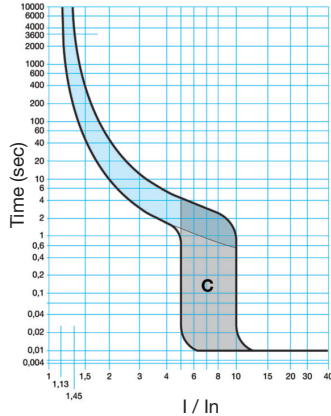
CZ001 must be fitted on the RCCB before fitting maximum one additional auxiliary (MZ203 to MZ206).
Up to 4 auxiliaries can be fitted on MCB.

Designation	Description	Width in 17.5mm	Pack qty.	Cat. Ref.	
 MZ201	Auxiliary + alarm switch for RCCB	1 module wide for ON/OFF & trip indication	1	CZ001	
	Auxiliary contacts 6A - 230V~ 3A - 440V~ Allows remote indication of main contact status.	1NO + 1NC auxiliary contact	1/2	1	MZ201
 MZ204	Signal contacts 6A - 230V~ 3A - 440V~ Signal contact indicates a fault condition (e.g. MCB tripped on overload or short circuit). flag indicator red - MCB tripped	1NO + 1NC signal contact	1/2	1	MZ202
	Shunt trip Allows remote tripping of the device	230 - 415 Vac 110 - 130 Vdc	1	1	MZ203
 MZ205	Under voltage release Allows MCB to be closed only when voltage is above 70% of Un. MCB will automatically trip when voltage falls by 35% of Un	24 - 48 Vac 12 - 48 Vdc	1	1	MZ204
	Overvoltage auxiliary Protects the installation from permanent overvoltage	48 Vdc 230 Vac	1	1	MZ205 MZ206
 MZ209	Combined Over & Under-voltage auxiliary Protects the installation from permanent over and under voltage	230 Vac	1	1	MZ209 MZ214
	Locking kit For the dolly of the device supplied without padlock.	This allows locking of the device dolly in the on/off position. will accept two padlocks with hasps of 4.75mm diameter max.	2	1	MZN175

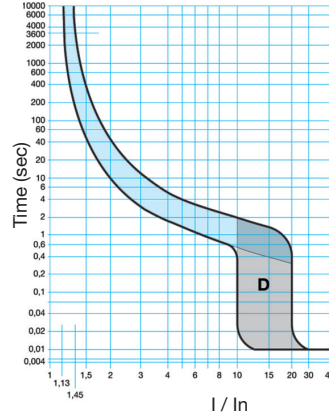
Type "B" curve



Type "C" curve



Type "D" curve



Electrical characteristics

MCB type	MY__E	MT__A	MU__A	NB__A	NC__A	NDN__A	NRN	HMX	HLE/F	HMB/C/D	HMK
Current rating	1 - 63A	6 - 63A	2 - 63A	6 - 63A	0.5 - 63A	0.5 - 63A	6 - 63A	25 - 63A	80-125A	80-125A	80-125A
Tripping curve											
B: 3 - 5In											
C: 5 - 10In	C	B	C	B	C	D	C	C	B / C	B / C / D	C
D: 10 - 20In											
Breaking capacity											
EN 60 898 & IEC 898	4.5kA	6kA	6kA	10kA	10kA	10kA	-	-	10kA	15kA	-
IEC 947 - 2	6kA	10kA	10kA	15kA	15kA	15kA	15/25kA	50kA	10kA	15kA	30kA
NEMA AB - 1	10KAIC	22KAIC	22KAIC	30KAIC	30KAIC	30KAIC	30KAIC	-	-	-	-
Rated voltage - 50/60Hz	230/400Vac (max. 440Vac)								240 / 415Vac		
Isolating voltage	500V										
Electrical endurance	0.5 to 32A		20 000 operations								
	40 to 125A		10 000 operations								
Working temperature	-5°C to +60°C										
Tropicalisation	Treatment 2 with relative humidity 95% at 55°C										

Correction factor

Depending on the model selected some of the breaker is calibrated at a temperature of 30°C in accordance to IEC 898. Temperature correction

In (A)	30°C	35°C	40°C	45°C	50°C	55°C	60°C
0.5	0.5	0.47	0.45	0.4	0.38	-	-
1	1	0.95	0.9	0.8	0.7	0.6	0.5
2	2	1.	1.7	1.6	1.5	1.4	1.3
3	3	2.8	2.	2.	2.	2.1	1.9
4	4	3.7	3.	3.3	3	2.8	2.5
6	6	5.6	5.3	5	4.6	4.2	3.8
10	10	9.4	8.8	8	7.5	7	6.4
16	16	15	14	13	12	11	10
20	20	18.5	17.5	16.5	15	14	13
25	25	23.5	22	20.5	19	17.5	16
32	32	30	28	26	24	22	20
40	40	37.5	35	33	30	28	25
50	50	47	44	41	38	35	32
63	63	59	55	51	48	44	40
80	80	77.6	75.1	72.6	70	67.2	64.4
100	100	96.6	93.1	89.4	85.6	81.6	77.5
125	125	121.9	118.9	115.7	112.4	109.1	105.6

Grouping factor (rated current reduce by factor K)

No. of units	K
n = 1	1
2 ≤ n < 4	0.95
4 ≤ n < 6	0.90
6 ≤ n	0.85

Frequency

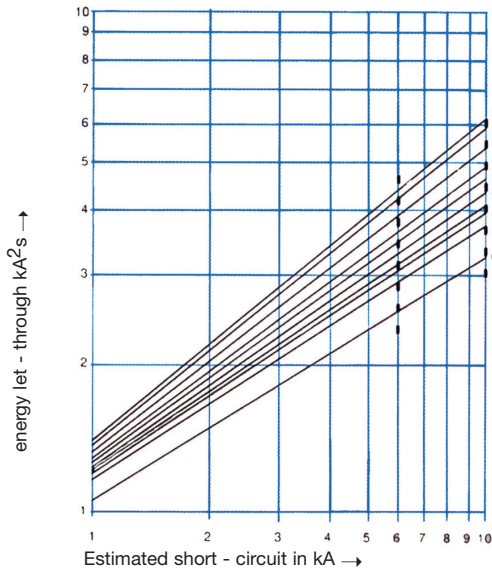
Thermal - Unchanged
Magnetic - Value multiplied by coefficient K

F (Hz)	17Hz - 60Hz	100Hz	200Hz	400Hz
K	1	1.1	1.2	1.5

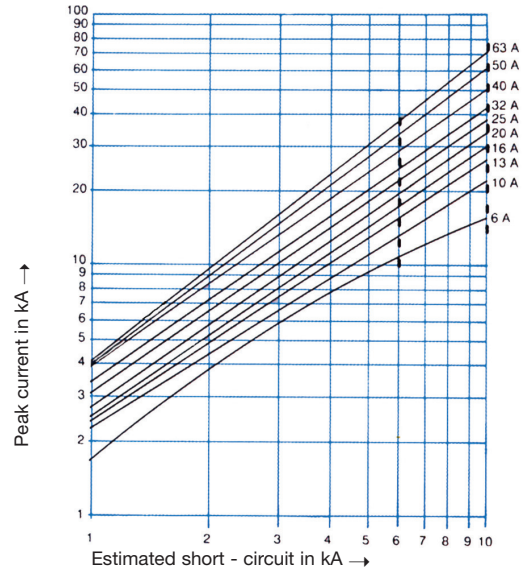
Installation

Working position : vertically, horizontally or flat.
Supply : feed from either top or bottom terminals.

I²T characteristics curve



Current limitation curve



Power loss

The power loss of MCB's is closely controlled by the standards and is calculated on the basis of the voltage drop across the main terminals measured at rated current. The power loss of Hager circuit breakers is very much lower than that required by the IEC Standard, so in consequences run cooler and are less affected when mounted together.

The table below gives the watts loss per pole at rated current.

MCB rated current (A)	0.5	1	2	3	4	6	10	16	20	25	32	40	50	63	80	100	125
Watt loss per pole (W)	1.3	1.5	1.7	2.1	2.4	2.7	1.8	2.6	2;8	3.3	3.9	4.3	4.8	5.2	5	5.5	8

DC applications

Because of their quick make and break design and excellent arc quenching capabilities Hager circuit breakers are suitable for use on DC. When selecting a circuit breaker for any DC application it is necessary to consider two main points.

1. rated current

The thermal time/current characteristics is unaffected so that the circuit breaker will carry its rated current and operate within its designated thermal time/current zone at 40°C Derating for higher ambient temperatures and grouping apply exactly the same as AC applications. The instantaneous magnetic trip is affected however, becoming less sensitive, requiring 2 times the AC operating current. The table below shows the upper and lower limits of both B and C instantaneous characteristic curves for 50Hz and DC applications. Thermal unchanged. Magnetic trip increased as table below.

Characteristics curve	B		C	
	50Hz	DC	50Hz	DC
magnetic trip				
I _{rm} 1	3I _n	3I _n	5I _n	5I _n
I _{rm} 2	5I _n	7.5I _n	10I _n	15I _n

2. system voltage

The system voltage and the type of system determines the number of poles required to provide the necessary breaking capacity and arc control. The table below gives the maximum DC voltage and breaking capacity for one pole or two poles connected in the series; The positioning of these breaking poles in the system depends on whether the system is earthed or insulated and if it is earthed whether one polarity is earthed or the centre point is earthed.

MCB Breaking capacity

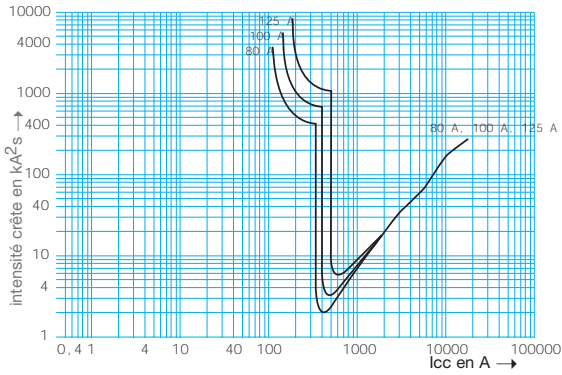
MCB	1 poles in series/60V	2 poles in series/125V	4 poles in series/250V	Magnetic tripping
MY	10kA	10kA	-	5 - 15In
MT	15kA	15kA	-	3 - 7.5In
MU	15kA	15kA	-	5 - 15In
NB	20kA	20kA	20kA	3 - 7.5In
NC	20kA	20kA	20kA	5 - 15In
ND	15kA	15kA	15kA	13 - 28In
NM	10kA	10kA	10kA	5 - 15In
NR	20kA	20kA	20kA	5 - 15In
HLE	10kA	10kA	10kA	3 - 7.5In
HLF	10kA	10kA	10kA	5 - 15In
HMB	15kA	15kA	15kA	3 - 7.5In
HMC	15kA	15kA	15kA	5 - 15In
HMD	15kA	15kA	15kA	13 - 28In



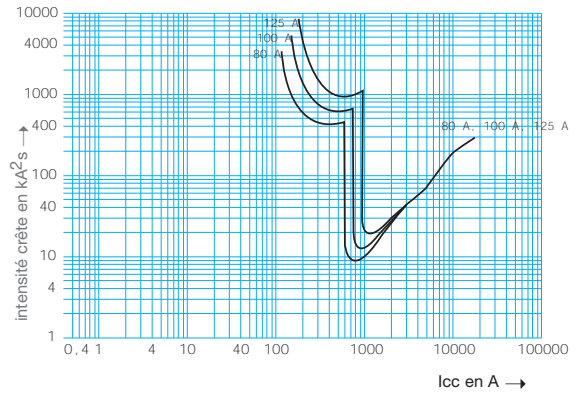
Mniature circuit breakers 125A



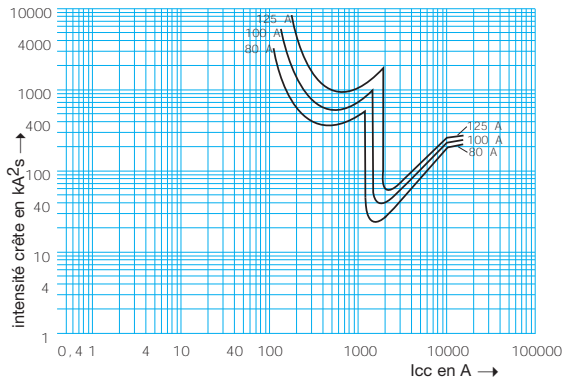
Current limiting at 400 V MCB's : HMB



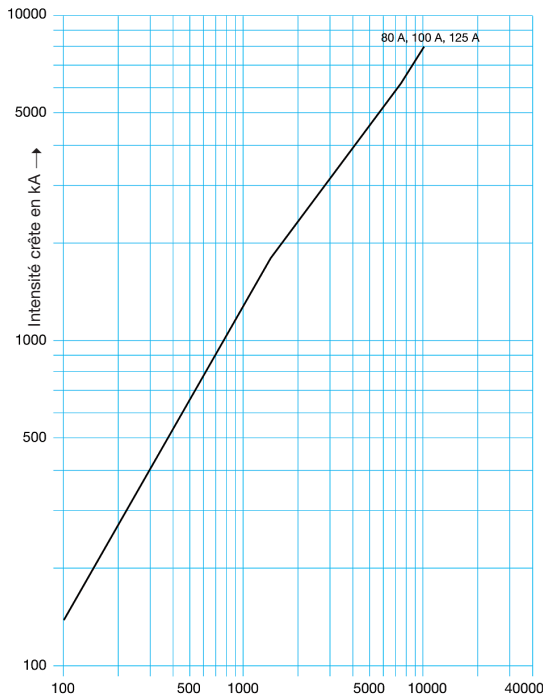
MCB's : HMC



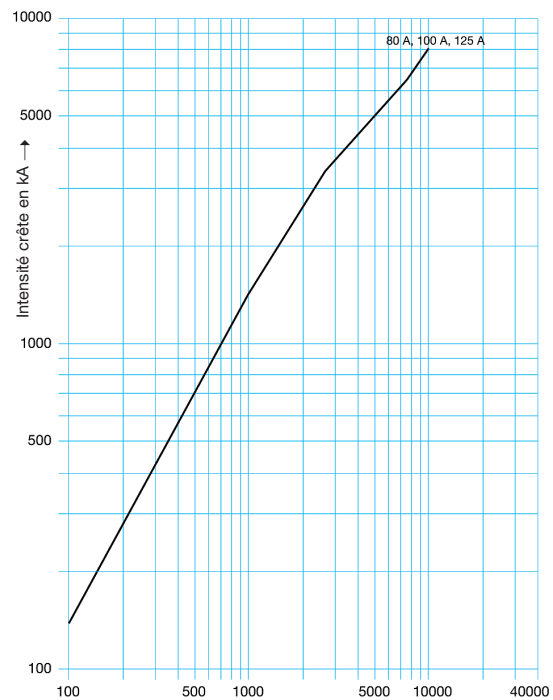
MCB's : HMC



Short circuit limiting at 400 V MCB's : HMB, HMC




MCB's : HMD



Remote control and automatic resetting auxiliary device

Functioning modes

For the front functioning modes “off & on” and “auto”, the remote controls “on”, “off”, “reset” and “” are operational (input n°2 - n°8). These control settings can be made operational by a direct contact such as a push button or closing switch (e.g. automation, supervisor, clocks etc.).

“on” remote control (input n°2)


It is jammed when:

- The selector or the controls activate “reset” or “ ” functions,
- Safety time delay is in progress,
- Trippings = 3 (end of cycle)
- The contacts are soldered.

“off” remote control (input n°4)

Takes priority for “on” setting and automatic reclosing.

It is jammed when:

- Selector activates the “reset” or “” functions,
- The contacts are soldered.

“reset” remote control (input n°6)

This control padlocks the « on » position, the « off » position and reinitialises the product.

The initialisation consists of resetting the number of tripping and the time delay (3 mins or 30 secs).

This will remotely unjam the product.

“” remote control (input n°8)

This control locks “on” and automatic reclosing.

“off” is available.

The product does not operate if this control is not connected (minimum).

Side selector “time set”

Time delay of 3 mins is recommended for associated products before activating either remote control setting “on” or automatic reclosing.

Even if it the device is reset before 3 mins the action will be delayed. However, for specific installations, when a continuity of service is required, the side selector can be set at 30 secs (except for MCBs and RCBOs).


Supervision

“a” and “b” signal outputs

If “a” and “b” are closed (the position of the associated product or remote control auxiliary handles is down), the cause could be:

- short-circuit, an overload or an earth leakage fault (depending on the associated device),
- tripping = 3 (end of cycle).

If “a” and “b” are open (position of the handle down or central), the cause could be:

- padlocking “” position, or “reset” position selected by either remote control or manually
- controlled device out of order,
- a safety time delay is in progress.


Indicator light

The indicator light shows the state of the product and allows a diagnosis.

We can distinguish 3 general cases:

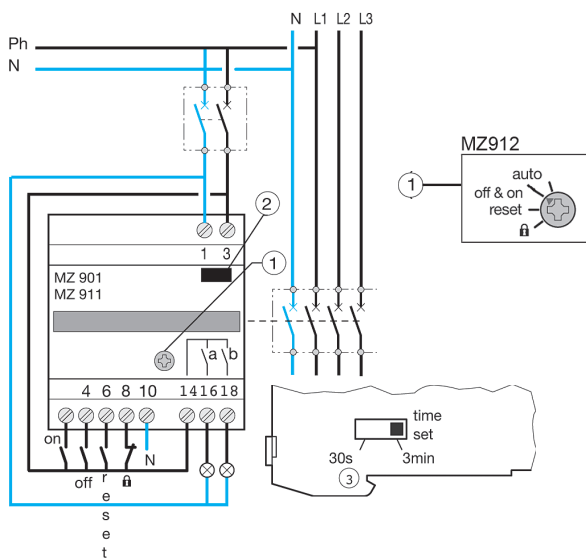
- indicator light on, the product is operational,
- indicator light off, the product is not supplied,
- indicator light intermittent, the remote controls or the automatic reclosing temporarily or permanently jammed.

Caused by

- Front selector padlocking position selected Remote control “reset” or “” positions selected
- Timer delay activated
- 3 trippings end of cycle.

If a red intermittent light is present, the controlled device is out of order.

Connection diagram



Functions

Tripping and indication auxiliary contacts are common to the range of Hager MCBs and RCCBs. They should be mounted on the left hand side of the device.

Auxiliary contact MZ201

Allows remote indication of the status of the device contacts to which it is associated.

Alarm contact MZ202

The alarm or signal contact will provide indication if the breaker trips under fault conditions

Note

Default indication auxiliaries and shunt trips or under voltage releases are fitted with tripping indications and reset facility.

MZN203 / MZN204 shunt trip

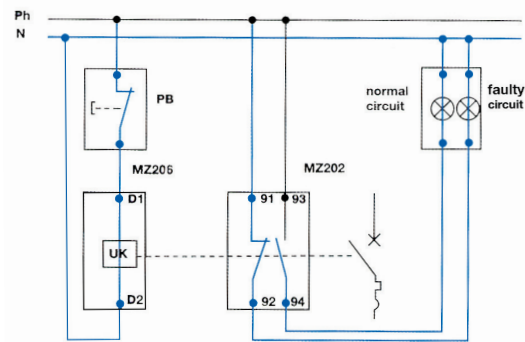
Allows tripping of the device by energizing the coil. It is fitted with internal contacts which allow it to be energized by an impulse or latched feed.

The contacts also allow for remote indication of operation.

MZN205 / MZN206 under voltage release

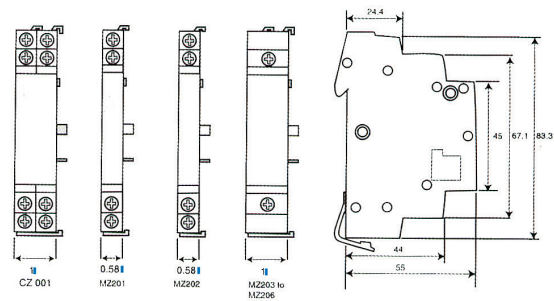
Allows the MCB to trip when the voltage drops or by pressing a remote off switch (ie emergency stop).

Emergency switch - off with under voltage release



Note : control circuit must be protected using a maximum 6A curve C MCB.

Sizes



Recapitulative table

	MZ201	MZ202	CZ001	MZ203	MZ204	MZ205	MZ206
	1O + 1C	1O + 1C	2X 1O + 1C				
	230V~ 6A	230V~ 6A	230V~ 6A				
	440V~ 3A	440V~ 3A	400V~ 3A				
				230 to 415V~	24 to 48V~	48V	230V~
				110 to 130V=	12 to 48V=		
				50Hz	50Hz	50Hz	50Hz

Grouping / combination of several auxiliaries

On 2, 3 and 4 pole MCBs it is possible to associate 3 auxiliaries - 2 indication auxiliaries and 1 release auxiliary. In this case, it is important to first fix the indication auxiliary (MZ 201 and MZ 202) and then the release auxiliary (MZ 203/204 and MZ 205/206)



RCD add-on blocks (63A)

**Description**

RCD add-on blocks for use with MCB ranges MY, MT, MU, NB, NC, ND, NR up to 63A.

Technical data :

High sensitivity :
10-30 mA instant tripping
Medium sensitivity :
100-500 mA instant tripping
300 - 500mA selective (time delay)

These devices are designed to be fitted on the right hand side of the 2, 3 and 4 poles MCB's.

The combination device then provides protection against overload, short circuits and earth leakage faults.

All devices have a test facility

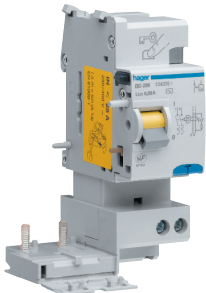
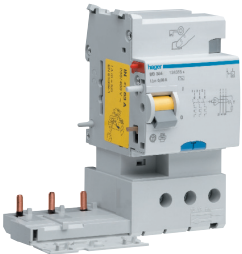

All devices except 10mA and 100mA, are type AC.
10mA and 100mA are type A.
All devices are protected against nuisance tripping and transient voltages

Nominal voltage :
2 poles 230V
3 and 4 poles : 230/400V

Comply with IEC 60 1009

Connection capacities :

25 A : 6mm² flexible cable
10mm² rigid cable
40, 63 A : 16mm² flexible cable
25mm² rigid cable

Designation	Type	Sensitivity IΔn	In/A	Width in 17.5mm	Pack qty.	Cat. Ref.	
2 poles add-on blocks							
	A	10 mA	25A	2	1	BC225N	
	AC	30 mA	25A	2	1	BD226N	
	AC		40A	2	1	BD241N	
	AC		63A	2	1	BD264N	
	A	100 mA	25A	2	1	BE225N	
	A		63A	2	1	BE263N	
	AC	300 mA	25A	2	1	BF226N	
	AC		40A	2	1	BF241N	
	AC		63A	2	1	BF264N	
	AC		500 mA	63A	2	1	BG264N
	AC		300 mA	63A	2	1	BP264N
	AC		500 mA	63A	2	1	BR264N
3 poles add-on blocks							
	AC	30 mA	25A	2	1	BD326N	
	AC		40A	3	1	BD341N	
	AC		63A	3	1	BD364N	
	A	100 mA	25A	3	1	BE325N	
	A		63A	3	1	BE363N	
	AC	300 mA	25A	2	1	BF326N	
	AC		40A	3	1	BF341N	
	AC		63A	3	1	BF364N	
	AC		500 mA	63A	3	1	BG364N
	AC		300 mA	63A	3	1	BP364N
	AC		500 mA	63A	3	1	BR364N
	4 poles add-on blocks						
	AC	30 mA	25A	2	1	BD426N	
	AC		40A	3	1	BD441N	
	AC		63A	3	1	BD464N	
	A	100mA	25A	3	1	BE425N	
	A		63A	3	1	BE463N	
	AC	300 mA	25A	2	1	BF426N	
	AC		40A	3	1	BF441N	
	AC		63A	3	1	BF464N	
	AC		500 mA	63A	3	1	BG464N
	AC		300 mA	63A	3	1	BP464N
	AC		500 mA	63A	3	1	BR464N

BD226N

BD364N

BD426N





RCD add-on blocks type AC , type A and HI for circuit breakers HLE, HLF, HMB, HMC, HMD, HMK, HMX




RCD add-on blocks for circuit Breakers HMB, HMC, HMD, HLE, HLF, HMK, HMX.

Fixed :

- **high sensitivity 30 mA** instantaneous
- **average sensitivity 300 mA** instantaneous.

Settings :

- sensitivity $I\Delta n$ 0.3 - 0.5 - 1 A ...
- delay Δt 0  - 60 -150 ms.

These devices are intended to be fixed on the right side of the circuit breakers to form differential circuit breakers from 80 to 125A, two, three or four-pole.

This "circuit breaker + block" ensures, in addition to the overload and short circuit protection, the protection of the installations against the insulation defects (300mA and 1A) and the protection of the people against the direct contacts (30mA) and indirect (300mA).

Adjustable blocks :

The setting is done by actuating the thumbwheel in front face. The setting thumbwheels are protected by a transparent sealable cover.

Dissassembly :


The bistable latch (2 positions) facilitate the assembly or disassembly by the bottom of the "circuit breaker + block."

These RCD add-on blocks exist in version AC and in version A-HI.

Version AC  :

The add-on blocks are protected against unexpected tripping caused by the transitory leakage currents : lightning, capacitive loading.

Version A HI :

Type A  : when the electrical load is likely to produce fault component dc pulsating current, the protection of the people must be carried out by differentials of type A.

HI (High Immunity) :

The products with "reinforced immunity" reduce the unexpected tripping when they protect equipment generating disturbances (micro-processing, electronic ballast,...)

The differential defect or earth fault is visualized by the rearmament handle of the block in low position (yellow colour). Test button for differential functioning check.

Tightening compensation cages

These circuits breakers blocks are equipped with screw cages with tightening compensation, reinforcement arch, cable holding jaws. These elements contribute to an effective tightening over time.

Connection capacity :

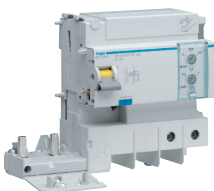
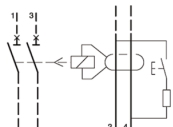

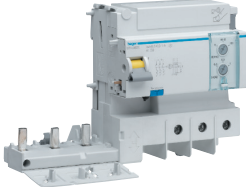
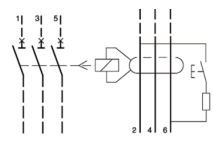

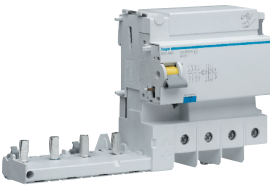
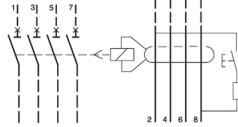

- 35mm² flexible connection (50mm² possible with some terminals),
- 70mm² rigid connection.

Assembly and disassembly facilitated by the drawer assembly system. The terminal cover is dependent of the add-on block. It is provided with jeying systems avoiding the omission of terminal tightening downstream of the circuit breaker. .

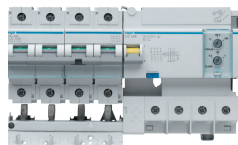
Nominal voltage: -15 +10 %
2 poles: 230 V
Three and four-pole: 230/400 V
Test button: 230/400 V.

In conformity with the requirements of the appendix G of the IEC 61009-1.

In conformity with the requirements of standard IEC 60947-2.

Designation	Sensitivity fixed / adjustable $I\Delta n$	I_n / A	Width in 17.5 mm	Cat. Ref add-on blocks AC	Cat. Ref add-on blocks A-HI
 Add-on blocks 2 poles 2 P.P. 	Fixed 30 mA	125	6	BDC280E	BDH280E
	Adjustable 0.3 - 0.5 - 1 A 0 -  60 - 150	125	6	BTC280E	BTH280E
 Add-on blocks 4 poles 3 P.P. 	Fixed 30 mA	125	6	BDC380E	BDH380E
	Adjustable 0.3 - 0.5 - 1 A 0 -  60 - 150 ms	125	6	BTC380E	BTH380E
 Add-on blocks 4 poles 4 P.P. 	Fixed 30 mA	125	6	BDC480E	BDH480E
	Fixed 300 mA	125	6	BFC480E	BFH480E
	Adjustable 0.3 - 0.5 - 1 A 0 -  60 - 150 ms	125	6	BTC480E	BTH480E

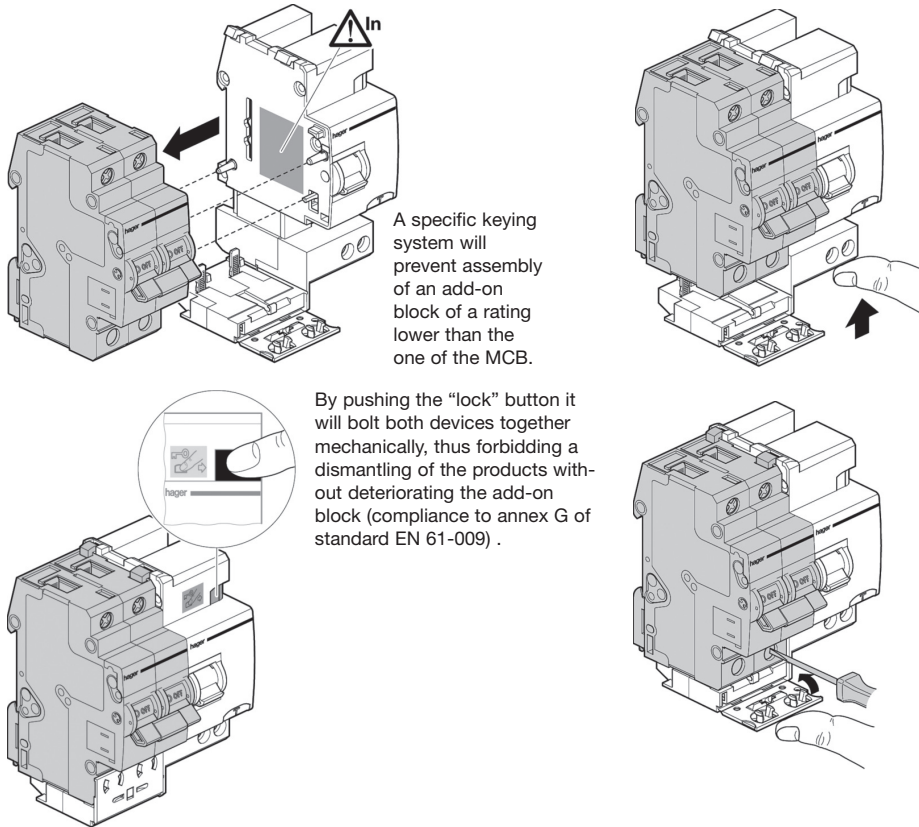
Association circuit breaker + add-on block 4 poles adjustable



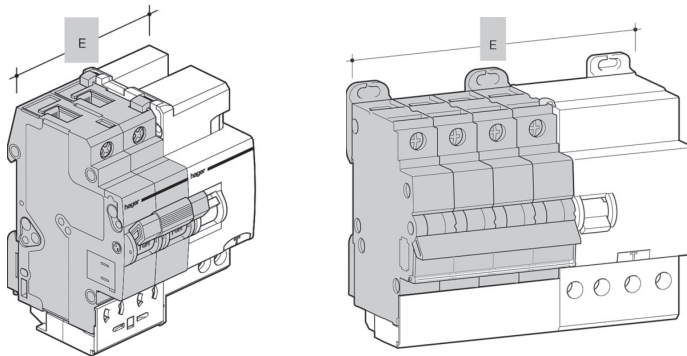
RCD add-on blocks



Assembly of the add-on blocks < 63 A and 80-125A



Dimensions of associated MCB / add-on block

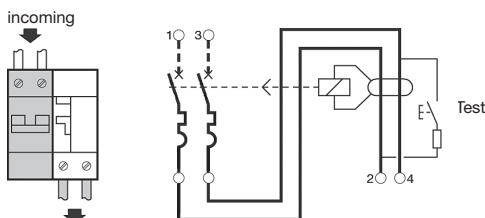


add-on blocks 25, 40, 63, 80, 100 and 125A

	E
2 P.P. 6 to 63 A	4
2 P.P. HM 80 to 125 A	9
3 P.P. 6 to 25 A	5
3 P.P. 32 to 63 A	6
3 P.P. HM 80 to 125 A	10.5
4 P.P. 6 to 25 A	6
4 P.P. 32 to 63 A	7
4 P.P. 6 to 63 A	7
4 P.P. HM 80 to 125 A	12

* 4 pole add-on blocks two output

Wiring diagram for MCB+Add-on block from 25 to 125A



Connection capacities :
 for assembled products from 6 to 25A : 6 mm² / 10 mm²
 for assembled products from 32 to 63 A : 10 mm² / 25 mm²
 for assembled products from 80 to 125A : 35 mm² / 70 mm²

If the supply of the add-on block is done from the bottom it should be clearly indicated.