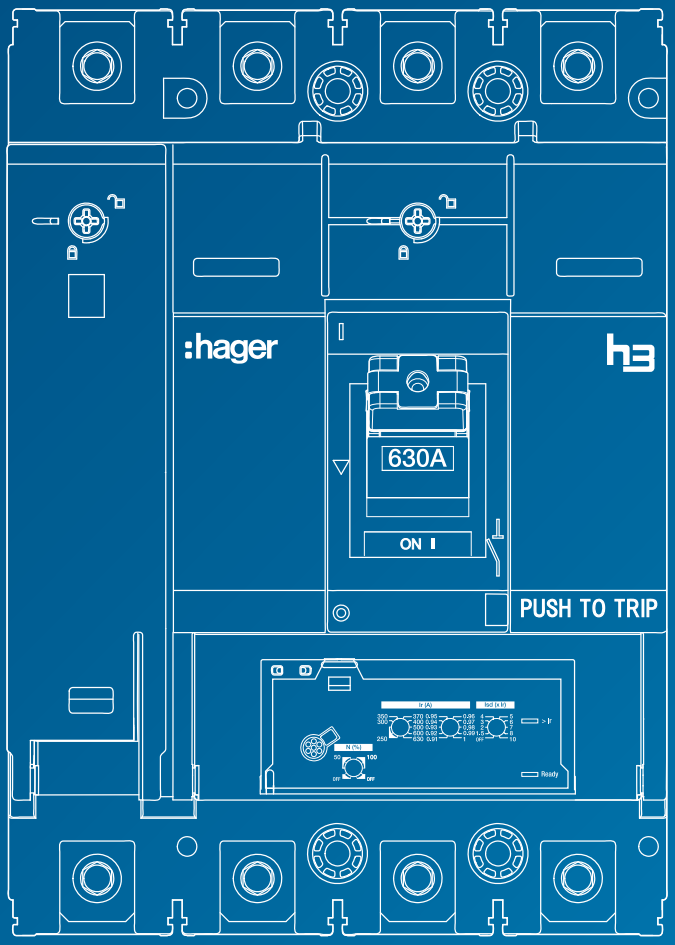
Technical catalogue

h3

Moulded Case Circuit breakers

x160



:hager

Description

Moulded Case Circuit Breaker

Thermal magnetic trip unit, 2 versions:

- Z version: fixed thermal and fixed magnetic
- U version: adjustable thermal and fixed magnetic

Trip-free switches: Allows tripping at distance using a voltmetrical trip unit (optional) AC 22/23A.

Technical data

HDAxxxZ/U = type C tripping

Temperature:	30°C
Voltage rating:	230/400V
Current rating:	16A - 160A

Connection Capacity

70 mm2 flexible cables

95 mm2 rigid cables

Standards: Comply to

- IEC 60947-2 : 2016

Approval: DEKRA

Breaking capacity

IEC 60947-2 18kA

Accessories

- Auxilliaries contact
- Shunt-trips

MCCB	Current	Cat. Ref	Description		
x160	A	1P	2P	3P	4P
220/240 Vac	16	HDA014Z	HDA015Z		
Icu: 25kA	20	HDA018Z	HDA019Z		
Ics: 25kA	25	HDA023Z	HDA024Z		
	32	HDA030Z	HDA031Z		
	40	HDA038Z	HDA039Z		
Thermal - fixed	50	HDA048Z	HDA049Z		
Magnetic - fixed	63	HDA061Z	HDA062Z		
	80	HDA078Z	HDA079Z		
	100	HDA089Z	HDA099Z		
	125	HAD123Z	HAD124Z		
	160		HAD159Z		



400/415 Vac	16			HDA016Z	HDA017Z
Icu: 18kA	20			HDA020Z	HDA021Z
Ics: 18kA	25			HDA025Z	HDA026Z
	32			HDA032Z	HDA033Z
	40			HDA040Z	HDA041Z
Thermal - fixed	50			HDA050Z	HDA051Z
1x In	63			HDA063Z	HDA064Z
Magnetic - fixed	80			HDA080Z	HDA081Z
> 10 x In	100			HDA100Z	HDA101Z
	125			HAD125Z	HDA126Z
	160			HAD160Z	HAD161Z



400/415 Vac	25			HDA025U	HDA026U
Icu: 18kA	40			HDA040U	HDA041U
Ics: 18 kA	63			HDA063U	HDA064U
	80			HDA080U	HDA081U
adjustable thermal	100			HDA100U	HDA101U
0,63 - 0,8 - 1 x In	125			HDA125U	HDA126U
fixed magnetic	160			HDA160U	HDA161U
> 10 x In					

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Moulded case circuit breakers x160
Thermal magnetic trip unit, 2 versions:
- A version: fixed thermal and fixed magnetic, ring lug cable terminal
- B version: adjustable thermal and fixed magnetic, ring lug cable terminal

Comply with IEC 60 947-2.

2P, 3P and 4P
Mechanical test button, lockable settings, integrated padlocking handle Ø 4mm (S version), needs accessory for DIN rail mounting.

Connection capacity
95 mm² rigid cables
70 mm² flexible cables

x160 TM fix - 3 or 4 poles


HHA126A

Icu / Ics 380 - 415 V~	In (A)	3 poles	4 poles
25 / 25 kA	16	HHA016A	HHA017A
	25	HHA025A	HHA026A
	32	HHA032A	HHA033A
	40	HHA040A	HHA041A
	63	HHA063A	HHA064A
	80	HHA080A	HHA081A
	100	HHA100A	HHA101A
	125	HHA125A	HHA126A

x160 TM fix - 2 poles


HHA124A

Icu / Ics 220 - 240 V~	In (A)	2 poles
35 / 35 kA	16	HHA015A
	25	HHA024A
	32	HHA031A
	40	HHA039A
	63	HHA062A
	80	HHA079A
	100	HHA099A
	125	HHA124A

x160 TM adjustable - 3 or 4 polees


HHA125B

Icu / Ics 380 - 415 V~	In (A)	3 poles	4 poles
25 / 25 kA	25	HHA025B	HHA026B
	40	HHA040B	HHA041B
	63	HHA063B	HHA064B
	80	HHA080B	HHA081B
	100	HHA100B	HHA101B
	125	HHA125B	HHA126B

Technical changes reserved

Description

Moulded Case Circuit Breaker

Thermal magnetic trip unit, 2 versions:

- Z version: fixed thermal and fixed magnetic
- U version: adjustable thermal and fixed magnetic

Trip-free switches: Allows tripping at distance using a voltmetrical trip unit (optional) AC 22/23A.

Technical data

HNAxxxZ/U = type C tripping

Temperature:	30°C
Voltage rating:	230/400V
Current rating:	16A - 160A

Connection Capacity

70 mm2 flexible cables

95 mm2 rigid cables

Standards: Comply to

- IEC 60947-2 : 2016

Approval: DEKRA

Breaking capacity

IEC 60947-2 40kA

Accessories

- Auxilliaries contact
- Shunt-trips



MCCB	Current	Cat. Ref	Description		
x160	A	1P	2P	3P	4P
400/415 Vac	16			HNA016Z	HNA017Z
Icu: 40kA	20			HNA020Z	HNA021Z
Ics: 25kA	25			HNA025Z	HNA026Z
	32			HNA032Z	HNA033Z
	40			HNA040Z	HNA041Z
Thermal - fixed	50			HNA050Z	HNA051Z
1x In	63			HNA063Z	HNA064Z
Magnetic - fixed	80			HNA080Z	HNA081Z
> 10 x In	100			HNA100Z	HNA101Z
	125			HAD125Z	HNA126Z
	160			HAD160Z	HAD161Z



400/415 Vac	25			HNA025U	HNA026U
Icu: 40kA	40			HNA040U	HNA041U
Ics: 25kA	63			HNA063U	HNA064U
	80			HNA080U	HNA081U
adjustable thermal	100			HNA100U	HNA101U
0,63 - 0,8 - 1 x In	125			HNA125U	HNA126U
fixed magnetic	160			HNA160U	HNA161U
> 10 x In					

Trip-free switched

x160 suitable	125	HCA125U	HCA126U
AC22A / AC23A	160	HCA160U	HCA161U

Ue = 415V

Icw = 2kA/1s



Add-on Blocks

IΔn 300mA fixed sensitivity	125	HBA127H	HBA128H
Instantaneous trip			
IΔn adjustable sensitivity (A)	125	HBA125H	HBA126H
0.03 - 0.1 - 0.3	160	HBA160H	HBA161H
1 - 3 - 6			

Adjustable trip

- Instantaneous
- Time delay: 0.06s - 0.15s - 0.3s - 0.5s - 1s

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Indication contacts
- 1 changeover switch (ON/OFF): indicates the position of the MCCB is “open” or “close”.
- 1 changeover alarm contact: indicates MCCB tripping.

Coil connection
Connection capacity: 0,75 mm2 flexible or rigid cables
Optional connection cables.
The cable capacity of the terminals is 0,5 to 1,25 mm2.

Shunt trip
Remotes tripping of MCCBs.
Operating voltage: 0,7 to 1,1 x Un

Under voltage release
Allows the tripping of MCCBs when voltage level drop between 35 and 70% of Un. Pick up voltage 0,85 x Un

Direct rotary handle
- padlockable
- equipped with front cover and handle
- fixing without any additional screw.

Extended rotary handle
- IP 55
- supplied complete with shaft and handle.



HXA021H HXA024H



HXA014H

Designation	Characteristics	Cat. ref.
Auxiliary contacts AX AL	1 changeover contact (ON/OFF) 250 V AC / 3A 125 V DC / 0,4A 1 NO + 1 NC	HXA021H
	1 changeover alarm contact 250 V AC / 3A 125 V DC / 0,4A 1 NO + 1 NC	HXA024H
	Low level contact (ON/OFF) 125 V AC 1 NO + 1 NC	HXA025H
	Low level alarm contact 125 V AC 1 NO + 1 NC	HXA026H
Shunt trips SH	24 V DC	HXA001H
	48 V DC	HXA002H
	100 - 120 V AC	HXA003H
	200 - 240 V AC	HXA004H
	380 - 450 V AC	HXA005H
Undervoltage releases UV	24 V DC	HXA011H
	100 - 120 V AC	HXA013H
	200 - 240 V AC	HXA014H
	380 - 450 V AC	HXA015H
Delayed undervoltage releases DUVR	24 V DC	HXA051H
	110 - 120 V AC	HXA053H
	220 - 240 V AC	HXA054H
	380 - 415 V AC	HXA055H



HXA030H



HXA031H



HYA021H

Designation	Characteristics	Cat. ref.	
		3P	4P
Direct rotary handle	padlockable handle max Ø 6 mm	HXA030H	HXA030H
Shunt Extended rotary handle	padlockable handle max Ø 8 mm	HXA031H	HXA031H
Padlock	for padlock integrated handle to mount on MCCB for handle locking for 3 padlock max Ø 8 mm	HXA039H	HXA039H
	for HxAxxxP references standard version handle	HXA037H	HXA037H
Extended connections	set of 4 straight connections	HYA010H	HYA010H
	set of 3 or 4 spreader connections	HYA011H	HYA012H
Interphase barriers	set of 3, height: 50 mm	HYA019H	HYA019H
	set of 3, height: 97 mm	HYB019H	HYB019H
Terminal covers	for extended straight connections	HYA021H	HYA022H
	for extended spreader connections	HYA023H	HYA024H
	for collar terminal	HYA027H	HYA028H
Din rail adaptor		HYA033H	HYA033H
Rear connections	16 to 50A	HYA031H	HYA032H
	63 to 160A	HYA131H	HYA132H
Connecting kit	0,75 mm2 set of 3 x 2 wires length: 1,30m	HYA035H	HYA035H
Rail Din raiser		HYA036H	HYA036H



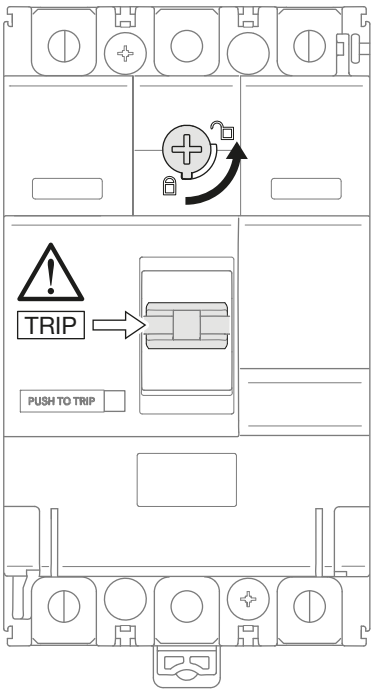
HYA088H

Designation	Characteristics	Cat. ref.
Ring lugs	compact lugs 16 mm2 Ø8,5	HYA086H
	compact lugs 25 mm2 Ø8,5	HYA087H
	compact lugs 35 mm2 Ø8,5	HYA088H
	compact lugs 50 mm2 Ø8,5	HYA089H
	compact lugs 70 mm2 Ø8,5	HYA090H
	compact lugs 95 mm2 Ø8,5	HYA090H

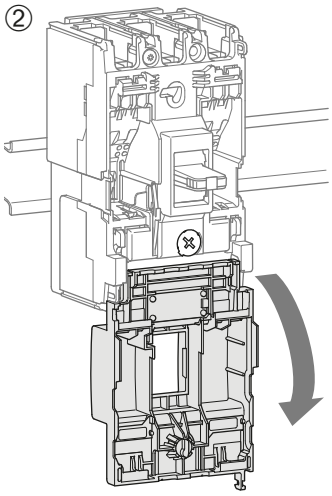
Technical changes reserved

Magnetic and thermal settings

①

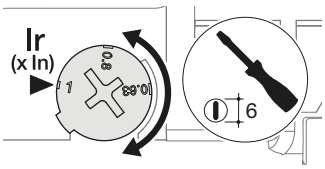


②



For DIN rail mounting, use HYA033H.

③

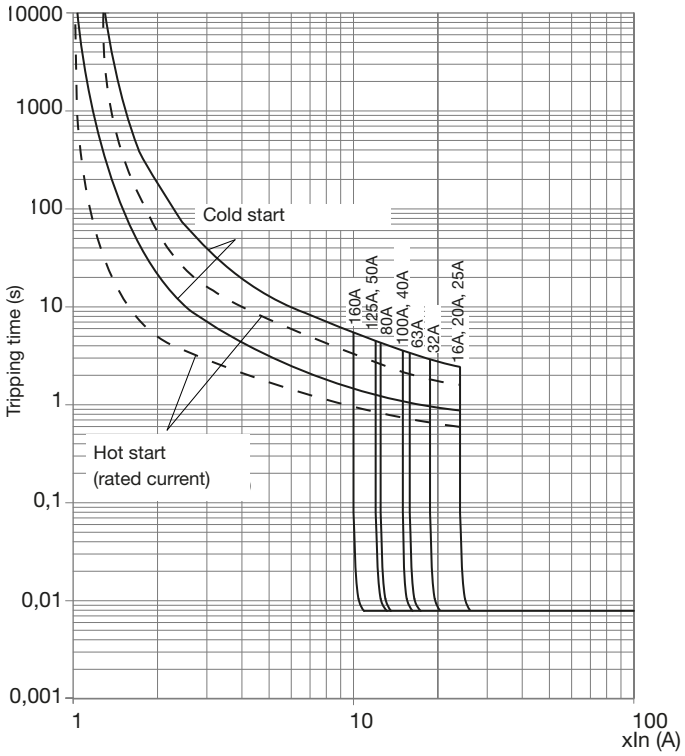


Thermal adjustment from 0,63 to 1 x In

Magnetic adjustment fixed > 10 x In

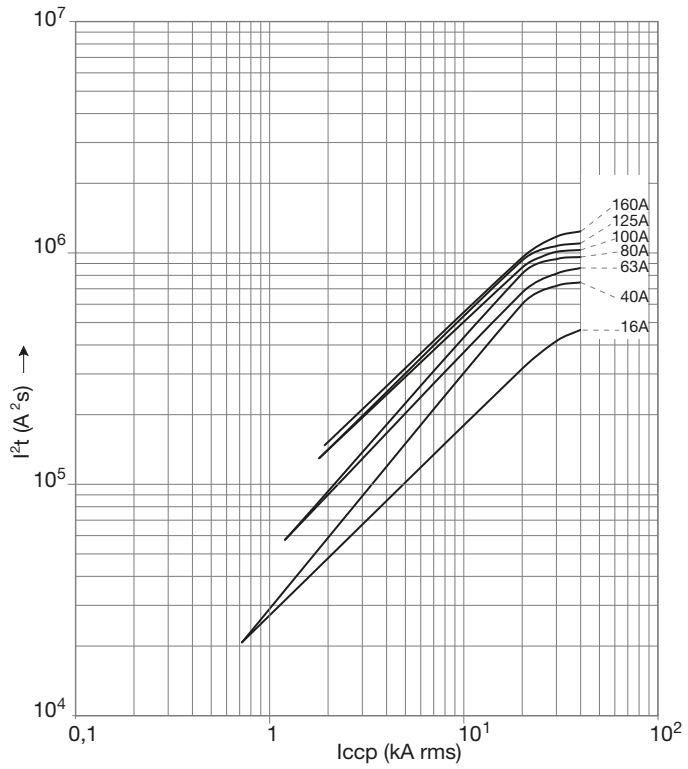
In	15 - 50 A	63 - 80 A	100 - 125 A	160 A
Imag	600 A	1000 A	1500 A	1600 A

MCCB x160



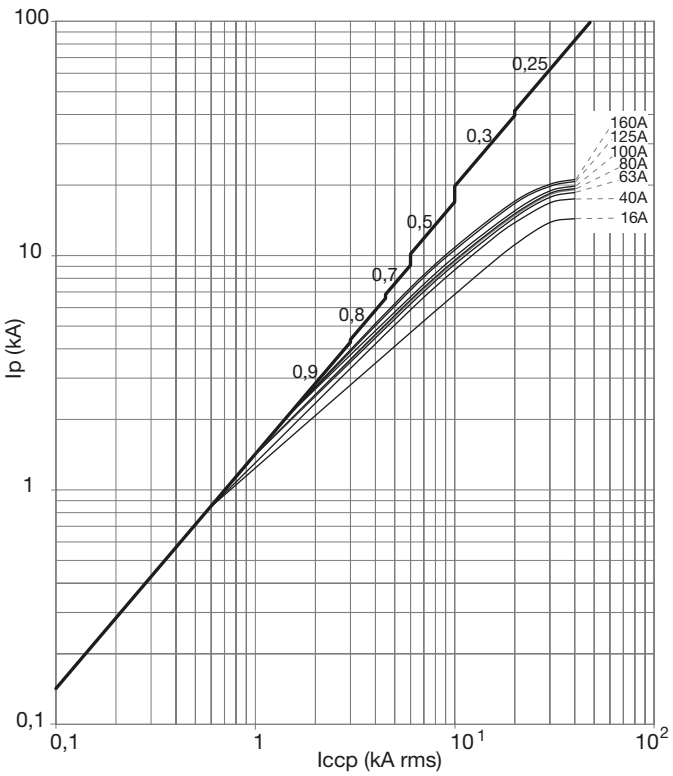
Thermal constraint curve at 400V (Let-through energy)

MCCB x160



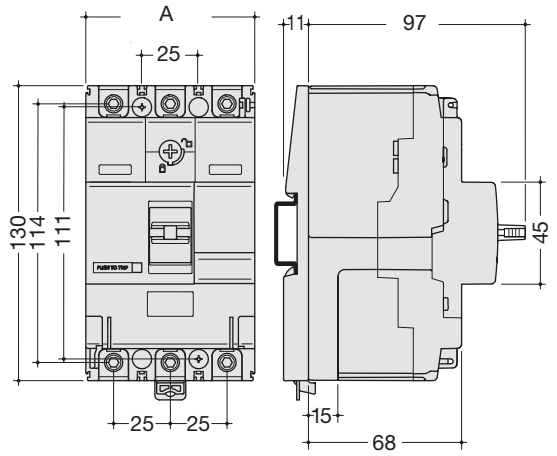
Current limiting curve at 400V(Let-through peak current)

MCCB x160



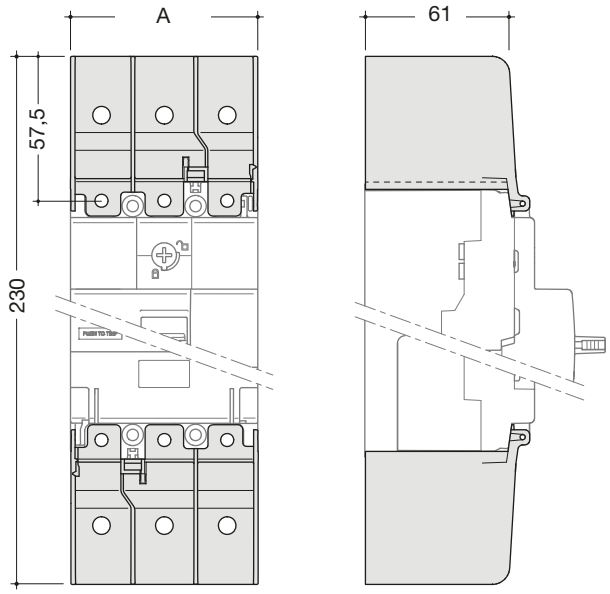
Technical changes reserved

MCCB x160



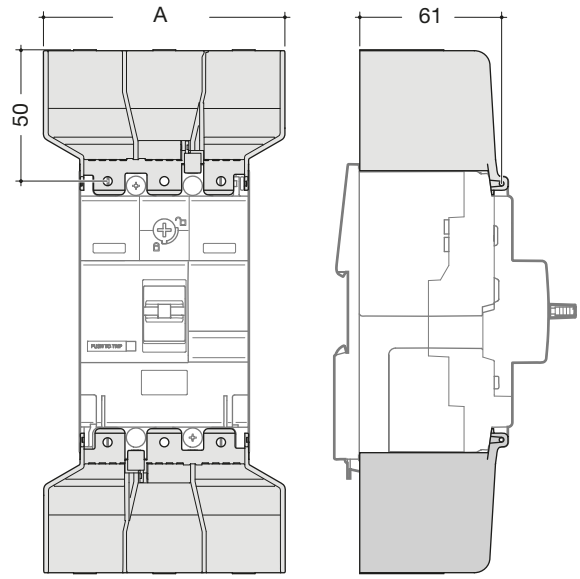
	A (mm)
1P	24,8
2P	49,5
3P	74,5
4P	99,5

Terminal covers for extended straight connections



	A (mm)
1P	24,4
2P	49,5
3P	74,5
4P	99,5

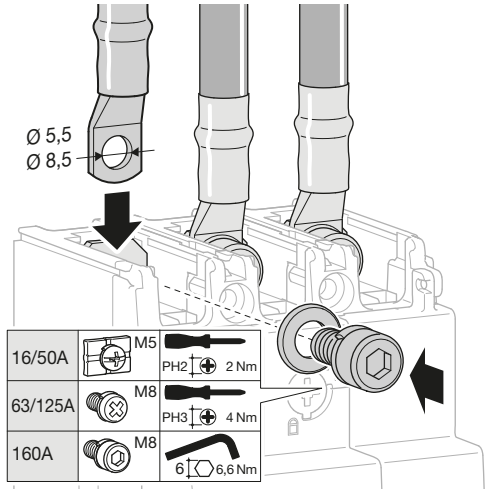
Terminal cover for extended spreader connections

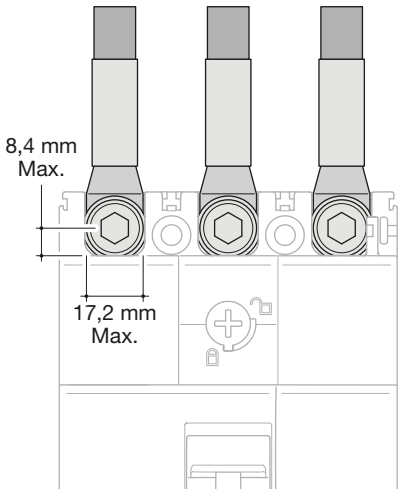


	A (mm)
3P	106,5
4P	141,5

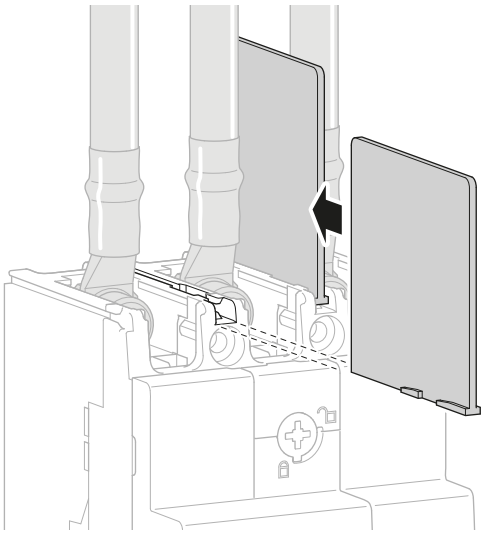
Connection

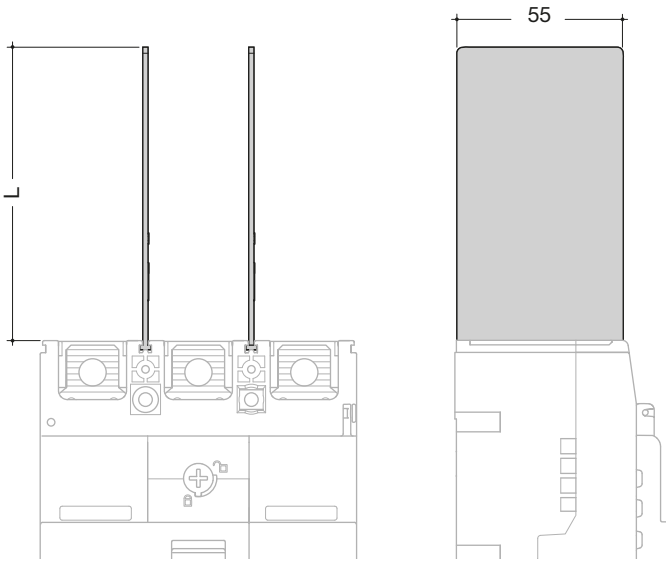
Connection with cable lugs





Interphase barriers

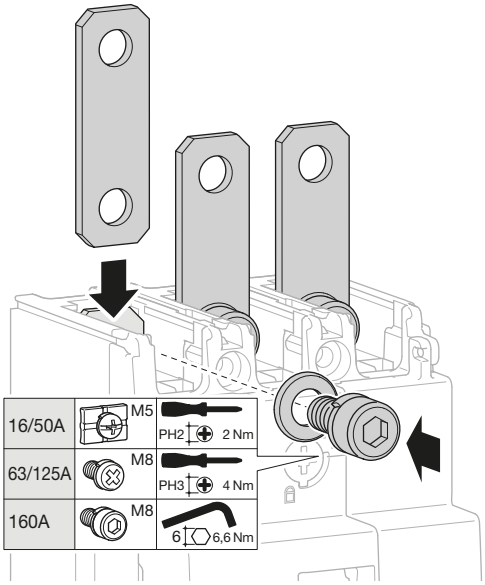


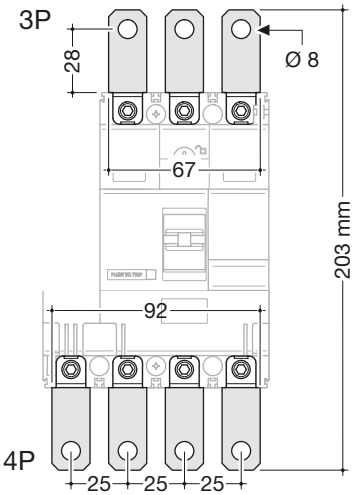


	L (mm)
HYA019H	50
HYB019H	97

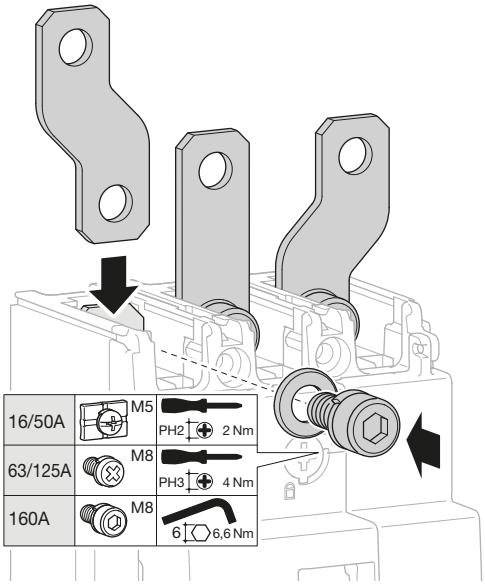
Technical changes reserved

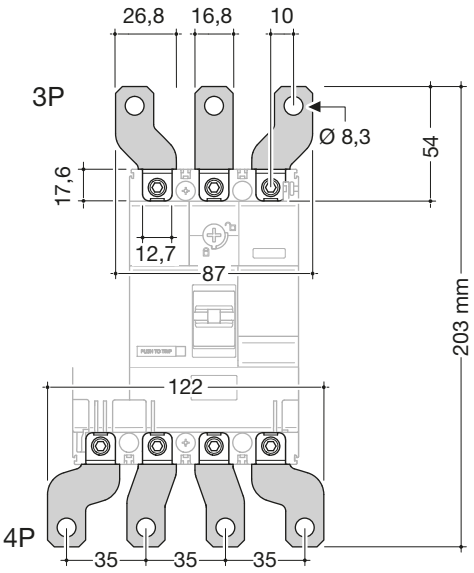
Extended straight connections



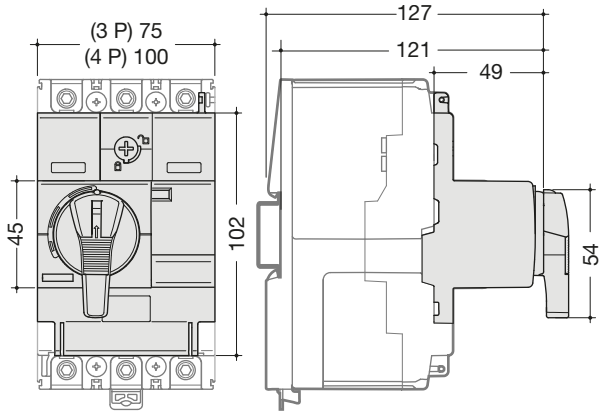


Extended spreader connections

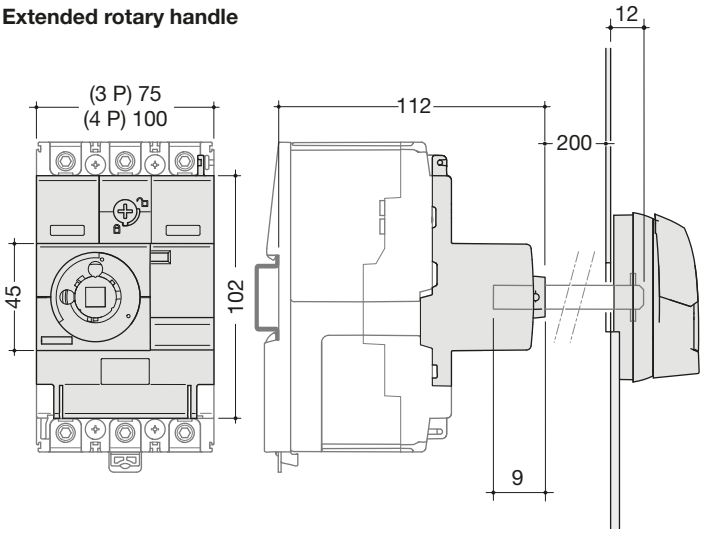




Direct rotary handle

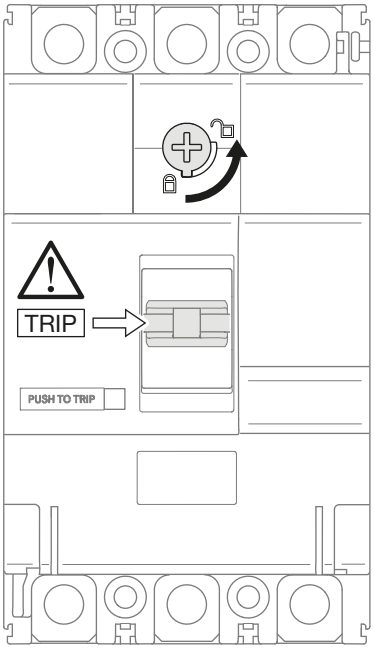


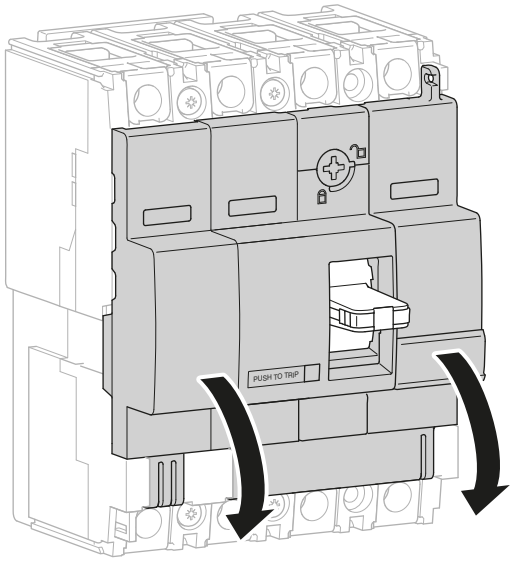
Extended rotary handle



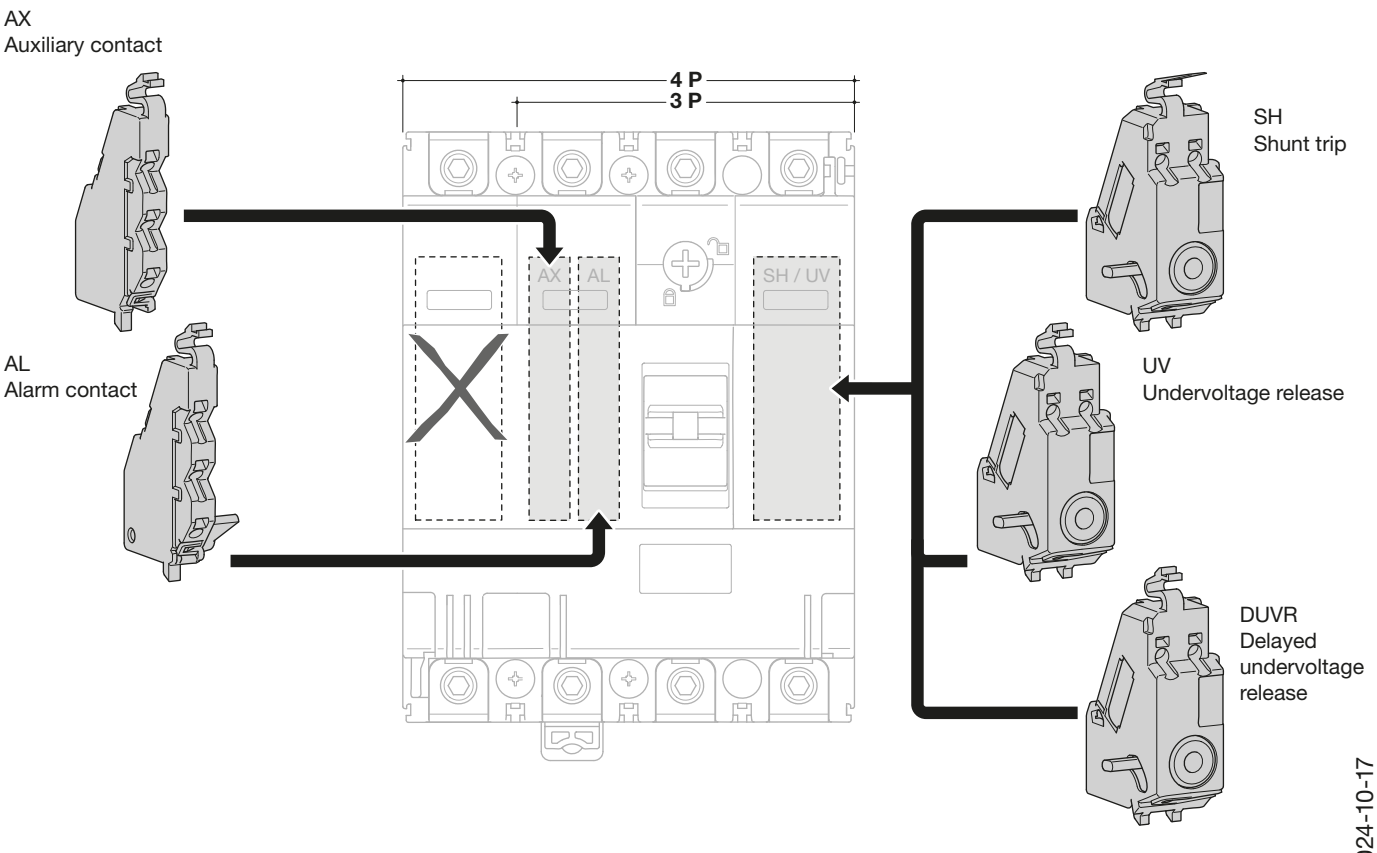
Auxiliaries

Auxiliaries for MCCBs and trip-free switches





Mounting combination for auxiliaries and releases



Technical changes reserved

Moulded case circuit breakers x160
Thermal magnetic trip unit, 2 versions:
- A version: fixed thermal and fixed magnetic, ring lug cable terminal
- B version: adjustable thermal and fixed magnetic, ring lug cable terminal

Comply with IEC 60 947-2.

2P, 3P and 4P
Mechanical test button, lockable settings, integrated padlocking handle Ø 4mm (S version), needs accessory for DIN rail mounting.

Connection capacity
95 mm² rigid cables
70 mm² flexible cables

x160 TM fix - 3 or 4 poles


HHA126A

Icu / Ics 380 - 415 V~	In (A)	3 poles	4 poles
25 / 25 kA	16	HHA016A	HHA017A
	25	HHA025A	HHA026A
	32	HHA032A	HHA033A
	40	HHA040A	HHA041A
	63	HHA063A	HHA064A
	80	HHA080A	HHA081A
	100	HHA100A	HHA101A
	125	HHA125A	HHA126A

x160 TM fix - 2 poles


HHA124A

Icu / Ics 220 - 240 V~	In (A)	2 poles
35 / 35 kA	16	HHA015A
	25	HHA024A
	32	HHA031A
	40	HHA039A
	63	HHA062A
	80	HHA079A
	100	HHA099A
	125	HHA124A

x160 TM adjustable - 3 or 4 polees


HHA125B

Icu / Ics 380 - 415 V~	In (A)	3 poles	4 poles
25 / 25 kA	25	HHA025B	HHA026B
	40	HHA040B	HHA041B
	63	HHA063B	HHA064B
	80	HHA080B	HHA081B
	100	HHA100B	HHA101B
	125	HHA125B	HHA126B

Technical changes reserved

Indication contacts
- 1 changeover switch (ON/OFF): indicates the position of the MCCB is “open” or “close”.
- 1 changeover alarm contact: indicates MCCB tripping.

Coil connection
Connection capacity: 0,75 mm2 flexible or rigid cables
Optional connection cables.
The cable capacity of the terminals is 0,5 to 1,25 mm2.

Shunt trip
Remotes tripping of MCCBs.
Operating voltage: 0,7 to 1,1 x Un

Under voltage release
Allows the tripping of MCCBs when voltage level drop between 35 and 70% of Un. Pick up voltage 0,85 x Un

Direct rotary handle
- padlockable
- equipped with front cover and handle
- fixing without any additional screw.

Extended rotary handle
- IP 55
- supplied complete with shaft and handle.



HXA021H HXA024H



HXA014H

Designation	Characteristics	Cat. ref.
Auxiliary contacts AX AL	1 changeover contact (ON/OFF) 250 V AC / 3A 125 V DC / 0,4A 1 NO + 1 NC	HXA021H
	1 changeover alarm contact 250 V AC / 3A 125 V DC / 0,4A 1 NO + 1 NC	HXA024H
	Low level contact (ON/OFF) 125 V AC 1 NO + 1 NC	HXA025H
	Low level alarm contact 125 V AC 1 NO + 1 NC	HXA026H
Shunt trips SH	24 V DC	HXA001H
	48 V DC	HXA002H
	100 - 120 V AC	HXA003H
	200 - 240 V AC	HXA004H
	380 - 450 V AC	HXA005H
Undervoltage releases UV	24 V DC	HXA011H
	100 - 120 V AC	HXA013H
	200 - 240 V AC	HXA014H
	380 - 450 V AC	HXA015H
Delayed undervoltage releases DUVR	24 V DC	HXA051H
	110 - 120 V AC	HXA053H
	220 - 240 V AC	HXA054H
	380 - 415 V AC	HXA055H



HXA030H



HXA031H



HYA021H

Designation	Characteristics	Cat. ref.	
		3P	4P
Direct rotary handle	padlockable handle max Ø 6 mm	HXA030H	HXA030H
Shunt Extended rotary handle	padlockable handle max Ø 8 mm	HXA031H	HXA031H
Padlock	for padlock integrated handle to mount on MCCB for handle locking for 3 padlock max Ø 8 mm	HXA039H	HXA039H
	for HxAxxxP references standard version handle	HXA037H	HXA037H
Extended connections	set of 4 straight connections	HYA010H	HYA010H
	set of 3 or 4 spreader connections	HYA011H	HYA012H
Interphase barriers	set of 3, height: 50 mm	HYA019H	HYA019H
	set of 3, height: 97 mm	HYB019H	HYB019H
Terminal covers	for extended straight connections	HYA021H	HYA022H
	for extended spreader connections	HYA023H	HYA024H
	for collar terminal	HYA027H	HYA028H
Din rail adaptor		HYA033H	HYA033H
Rear connections	16 to 50A	HYA031H	HYA032H
	63 to 160A	HYA131H	HYA132H
Connecting kit	0,75 mm2 set of 3 x 2 wires length: 1,30m	HYA035H	HYA035H
Rail Din raiser		HYA036H	HYA036H



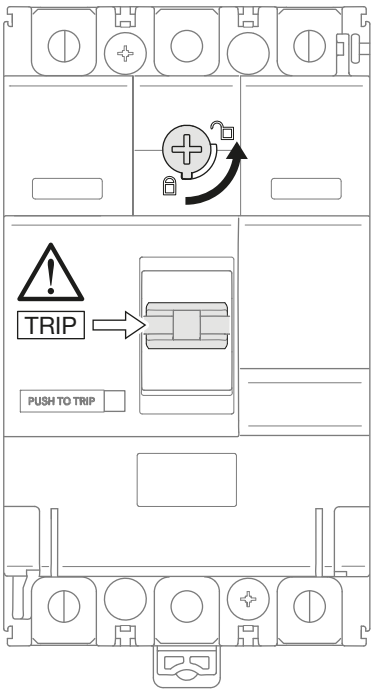
HYA088H

Designation	Characteristics	Cat. ref.
Ring lugs	compact lugs 16 mm2 Ø8,5	HYA086H
	compact lugs 25 mm2 Ø8,5	HYA087H
	compact lugs 35 mm2 Ø8,5	HYA088H
	compact lugs 50 mm2 Ø8,5	HYA089H
	compact lugs 70 mm2 Ø8,5	HYA090H
	compact lugs 95 mm2 Ø8,5	HYA090H

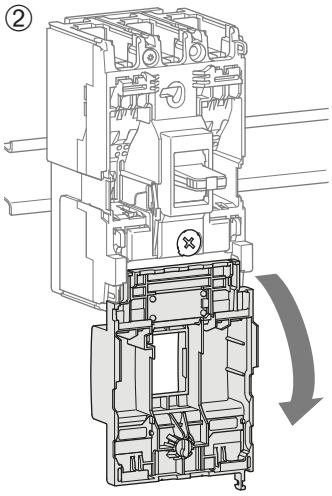
Technical changes reserved

Magnetic and thermal settings

①

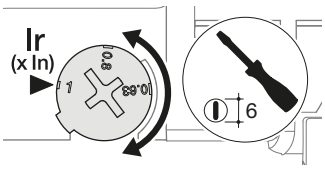


②



For DIN rail mounting, use HYA033H.

③

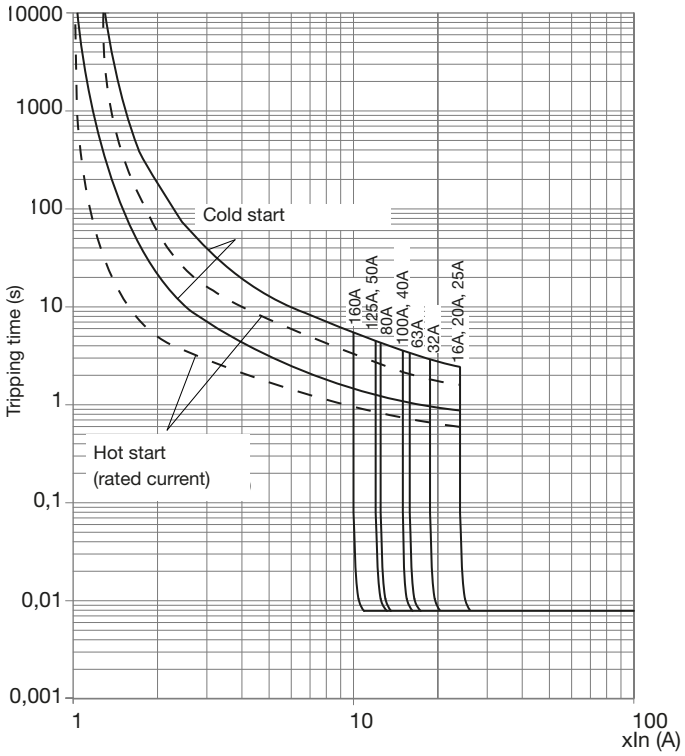


Thermal adjustment from 0,63 to 1 x In

Magnetic adjustment fixed > 10 x In

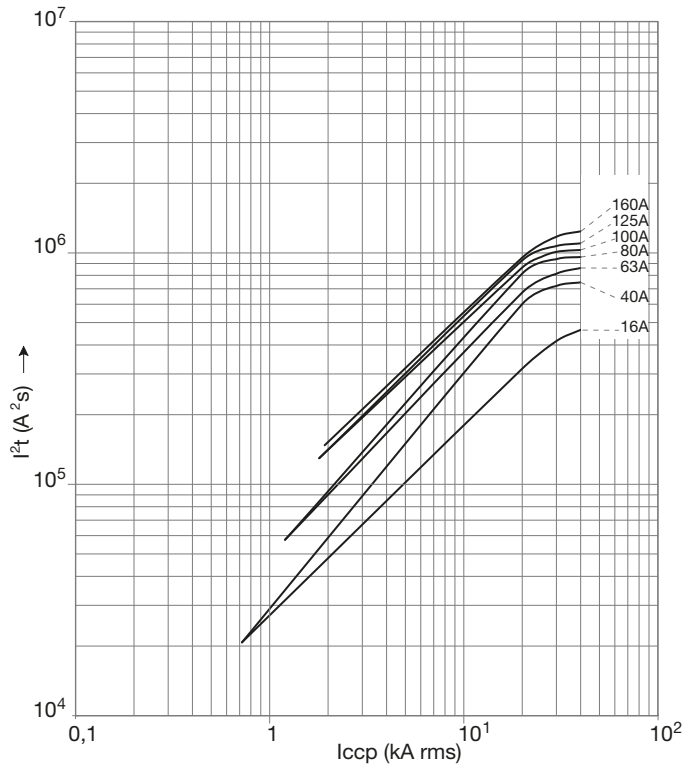
In	15 - 50 A	63 - 80 A	100 - 125 A	160 A
Imag	600 A	1000 A	1500 A	1600 A

MCCB x160



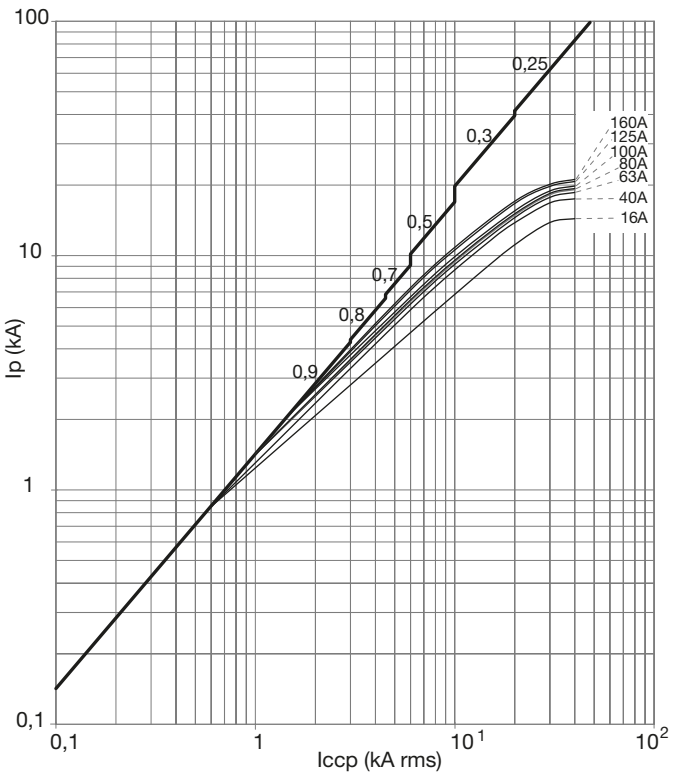
Thermal constraint curve at 400V (Let-through energy)

MCCB x160



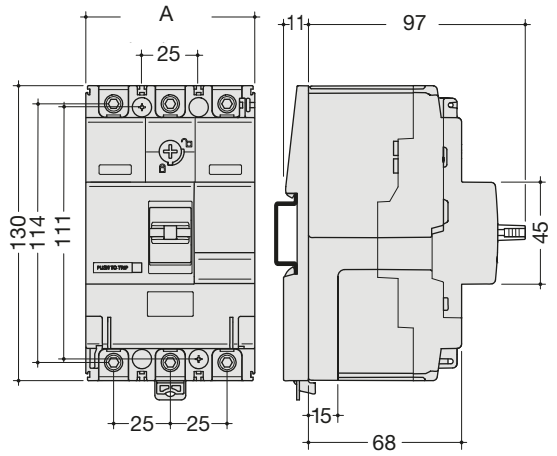
Current limiting curve at 400V(Let-through peak current)

MCCB x160



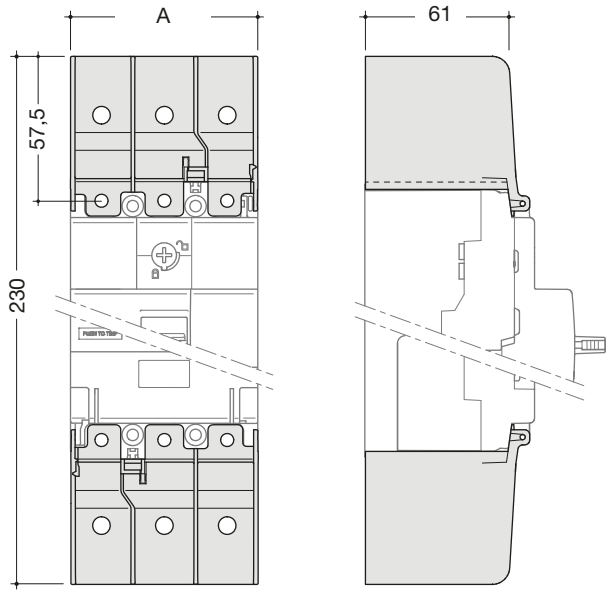
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MCCB x160



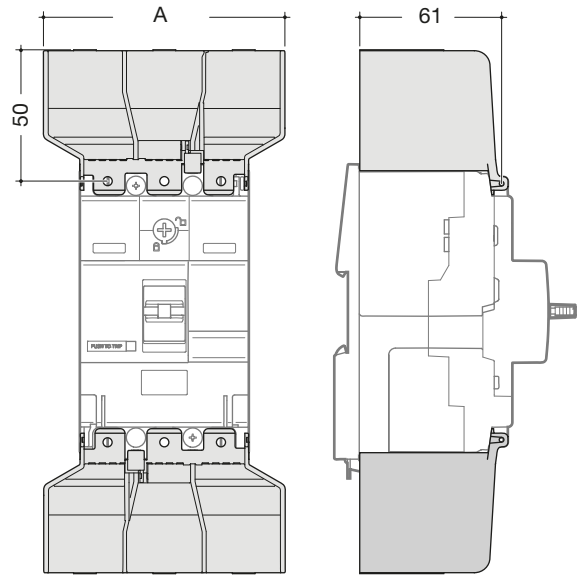
	A (mm)
1P	24,8
2P	49,5
3P	74,5
4P	99,5

Terminal covers for extended straight connections



	A (mm)
1P	24,4
2P	49,5
3P	74,5
4P	99,5

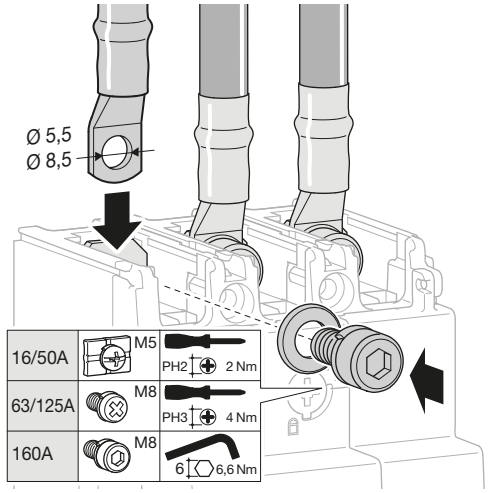
Terminal cover for extended spreader connections

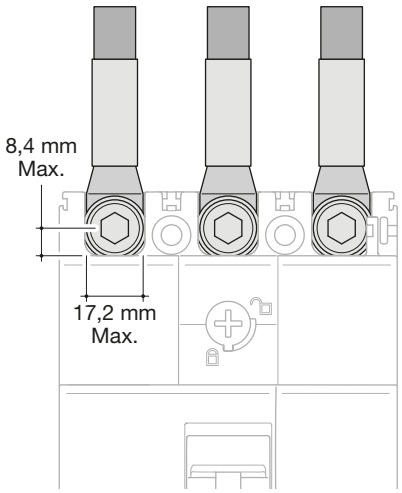


	A (mm)
3P	106,5
4P	141,5

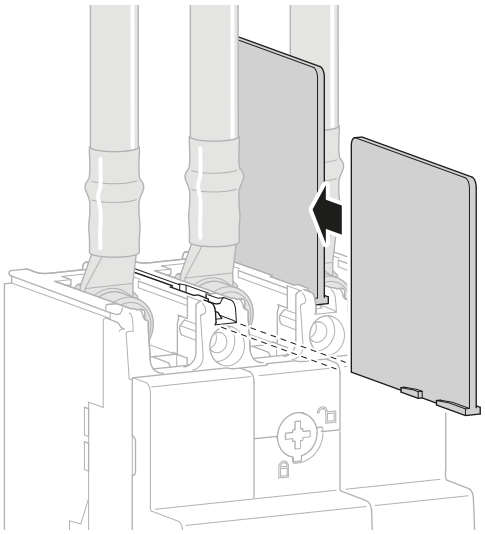
Connection

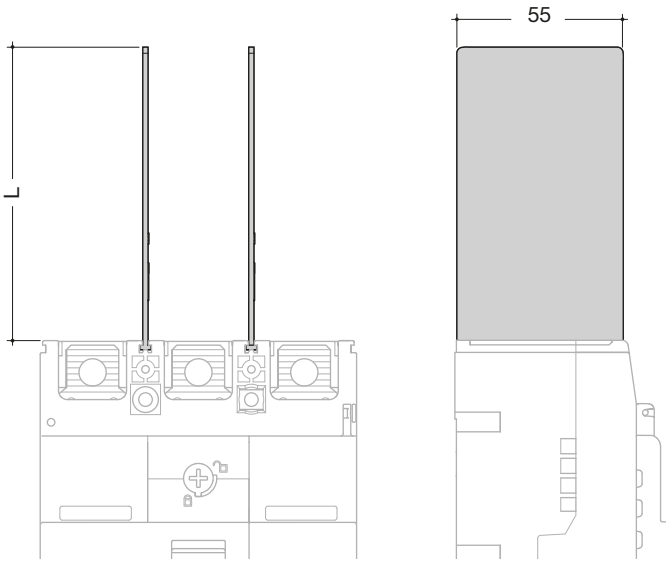
Connection with cable lugs





Interphase barriers

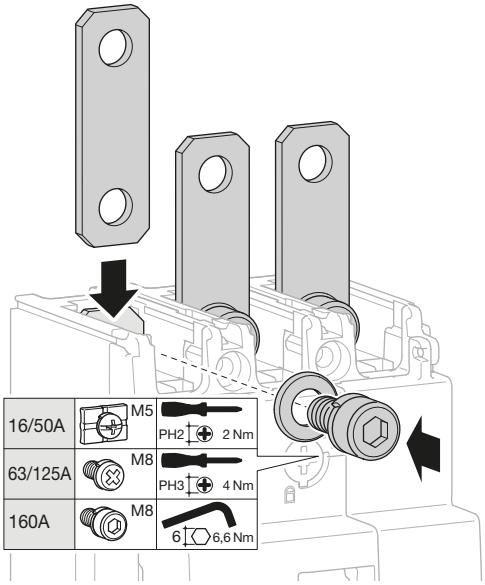


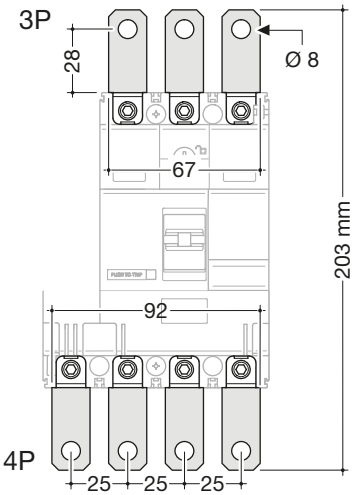


	L (mm)
HYA019H	50
HYB019H	97

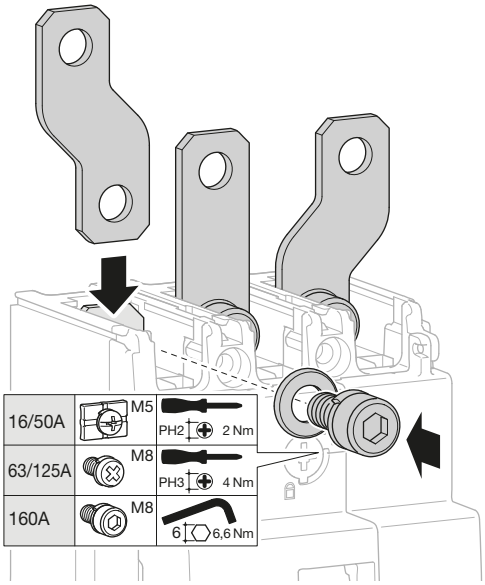
Technical changes reserved

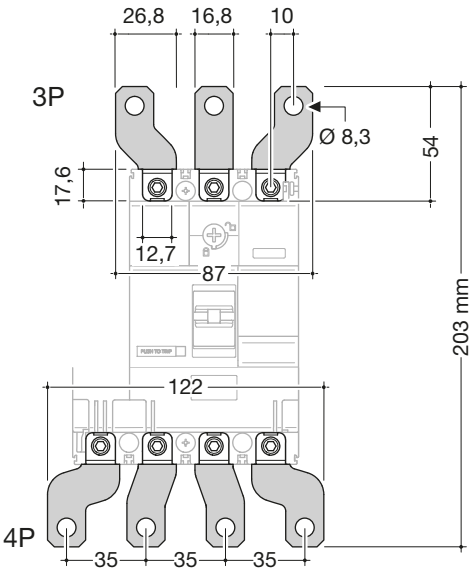
Extended straight connections



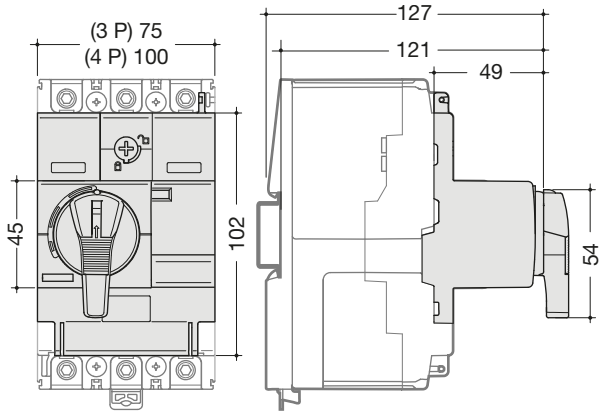


Extended spreader connections

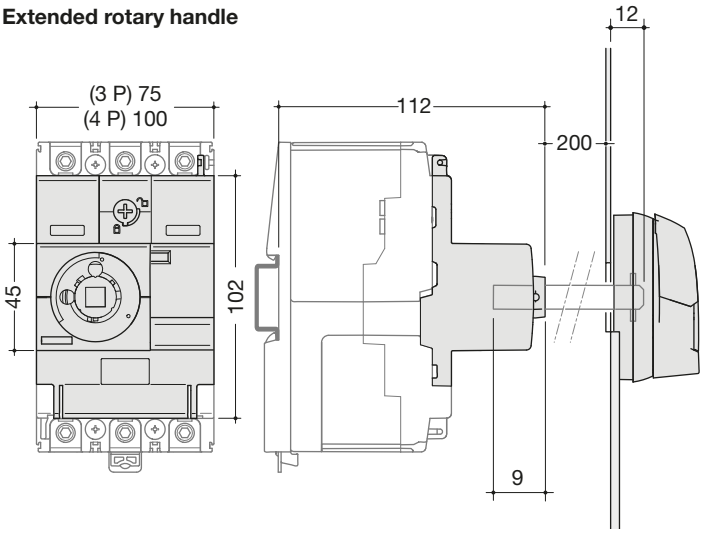




Direct rotary handle

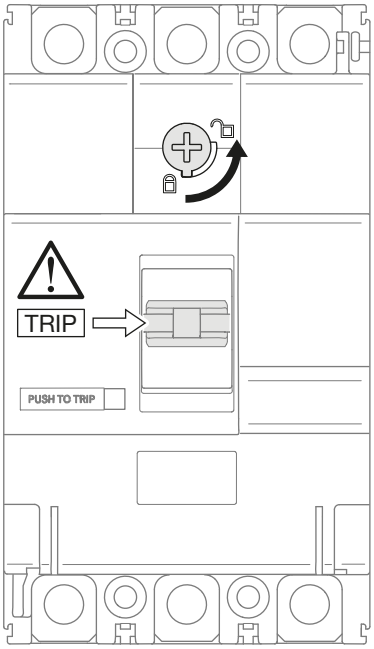


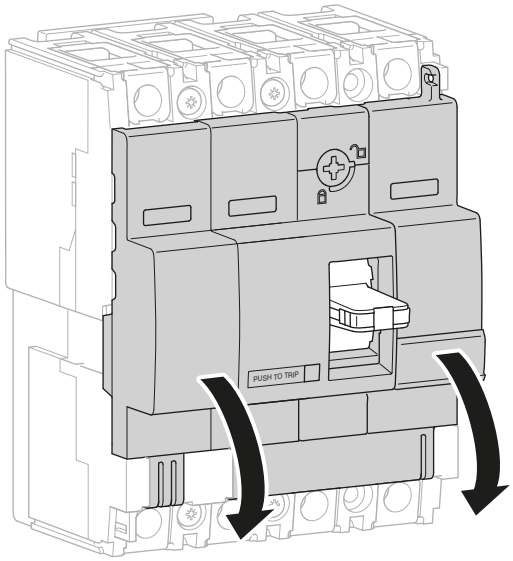
Extended rotary handle



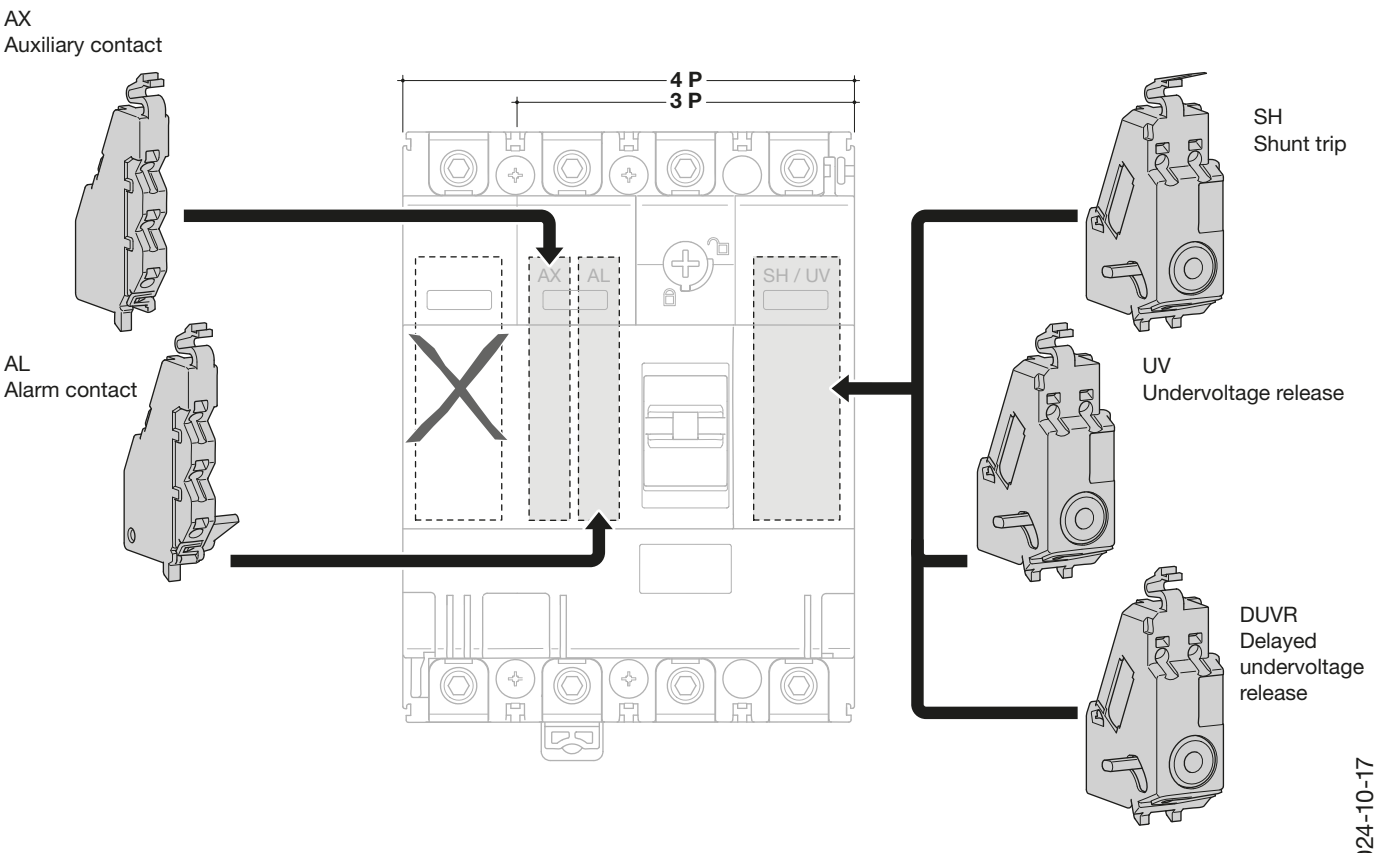
Auxiliaries

Auxiliaries for MCCBs and trip-free switches





Mounting combination for auxiliaries and releases



Technical changes reserved