

MCCB & Load Switches MX

SCHRACK
TECHNIK



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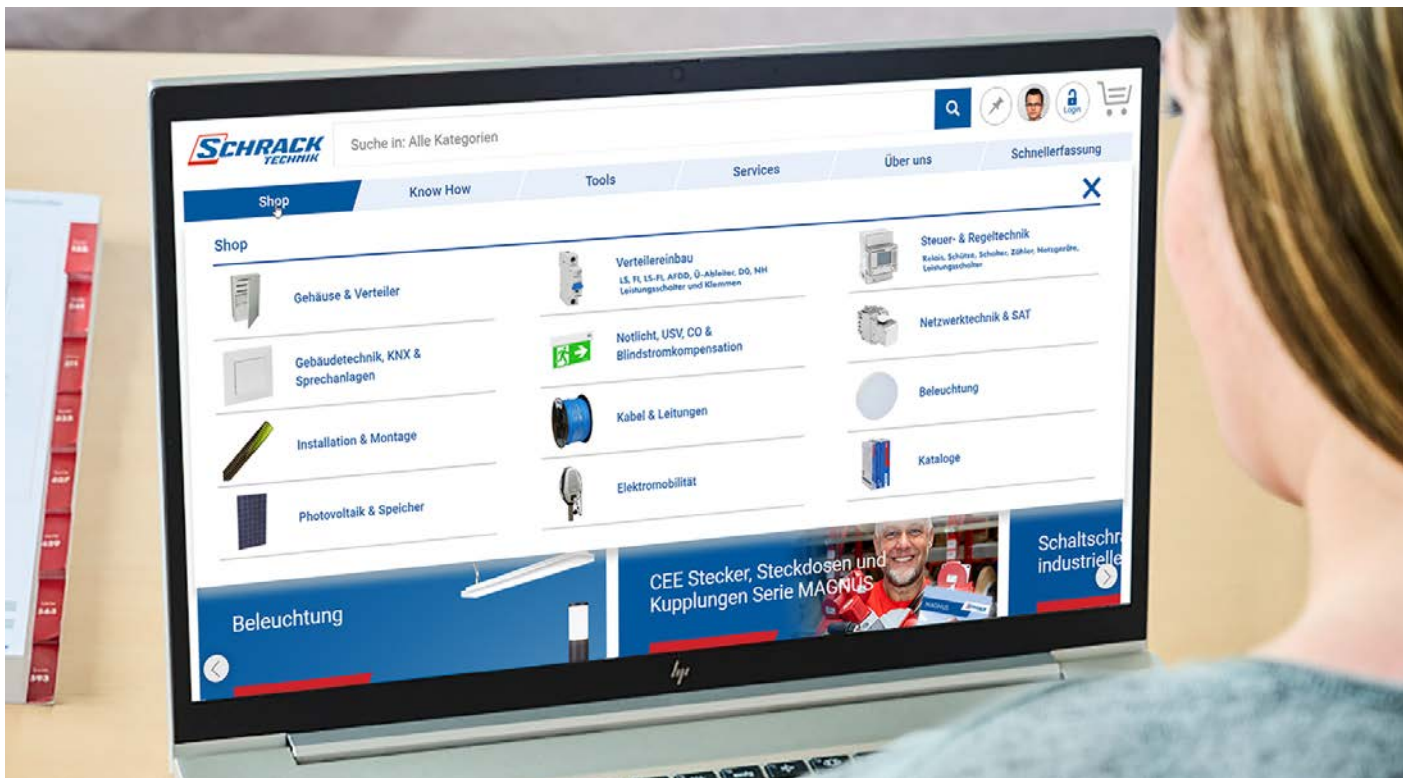
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MCCB MX Size 2



MCCB MX Size 3



MCCB MX Size 3



MCCB MX Size 4




MCCB MX Size 4



Combination MCCB and RCD



Moulded Case Circuit Breakers MX, Fix Installed

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MCCB MX Size 1, 3 Pole, 36kA



MX116431

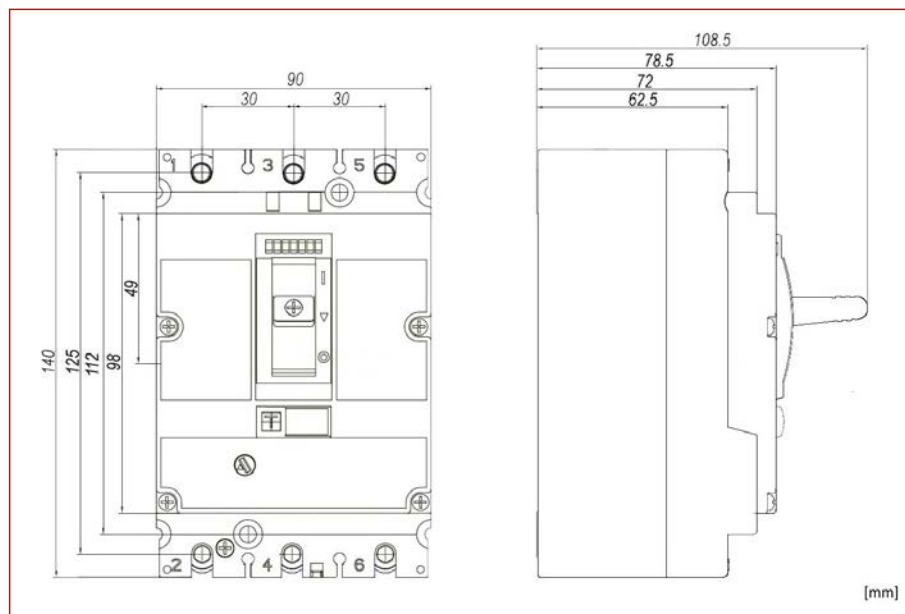
Schrack-Info

- For system and line protection
- Adjustable overload release 0.7 - 1 x I_n
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 36kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 16A to 125A

Technical Data

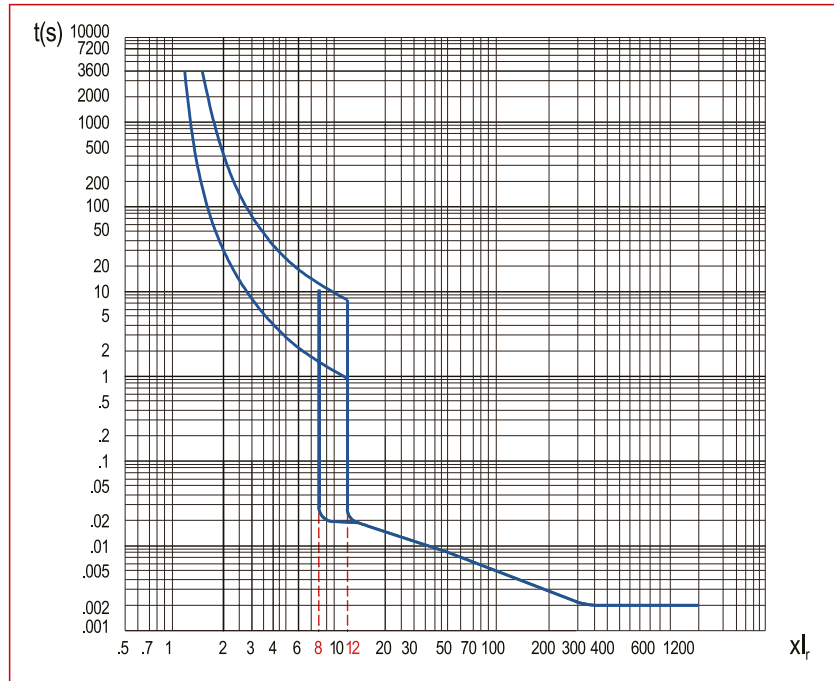
Size type		1
Poles		3
Rated operating current		16 - 125A
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		36kA
Release		Thermo-magnetic release - Type A
Rated insulation voltage U _i		1000V
Rated impulse withstand voltage U _{imp}		8kV
Rated ultimate short-circuit breaking capacity I _{cu}	AC 380/400/415V	36kA
	AC 440V	36kA
	AC 500V	25kA
	AC 660/690V	6kA
Rated service breaking capacity I _{cs}	AC 380/400/415V	36kA
	AC 440V	36kA
	AC 500V	25kA
	AC 660/690V	6kA
Pollution degree		3
IP Rating		IP20
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability		15000 operation cycles
Electrical endurance	AC 415V, I _n	8000 operation cycles
	AC 690V, I _n	2000 operation cycles
Weight		1.19kg

Dimensions



MCCB MX Size 1, 3 Pole, 36kA

Tripping Characteristic: Type A



DESCRIPTION	AVAILABLE	ORDER NO.
16 to 125A with Thermomagnetic Release Unit		
Moulded Case Circuit Breaker Type A, 3 pole, 36kA, 16A		MX116431
Moulded Case Circuit Breaker Type A, 3 pole, 36kA, 20A		MX120431
Moulded Case Circuit Breaker Type A, 3 pole, 36kA, 25A		MX125431
Moulded Case Circuit Breaker Type A, 3 pole, 36kA, 32A		MX132431
Moulded Case Circuit Breaker Type A, 3 pole, 36kA, 40A		MX140431
Moulded Case Circuit Breaker Type A, 3 pole, 36kA, 50A		MX150431
Moulded Case Circuit Breaker Type A, 3 pole, 36kA, 63A		MX163431
Moulded Case Circuit Breaker Type A, 3 pole, 36kA, 80A		MX180431
Moulded Case Circuit Breaker Type A, 3 pole, 36kA, 100A		MX110431
Moulded Case Circuit Breaker Type A, 3 pole, 36kA, 125A		MX112431



On stock, usually ready for delivery on the day of order

MCCB MX Size 1, 3 Pole, 50kA



MX116231

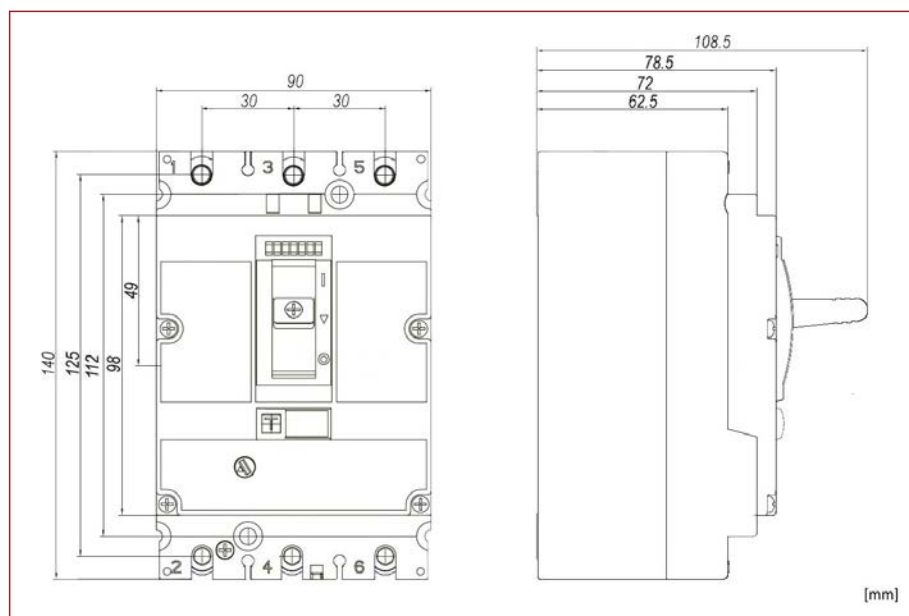
Schrack-Info

- For system and line protection
- Adjustable overload release 0.7 - 1 x I_n
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 50kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 16A to 125A

Technical Data

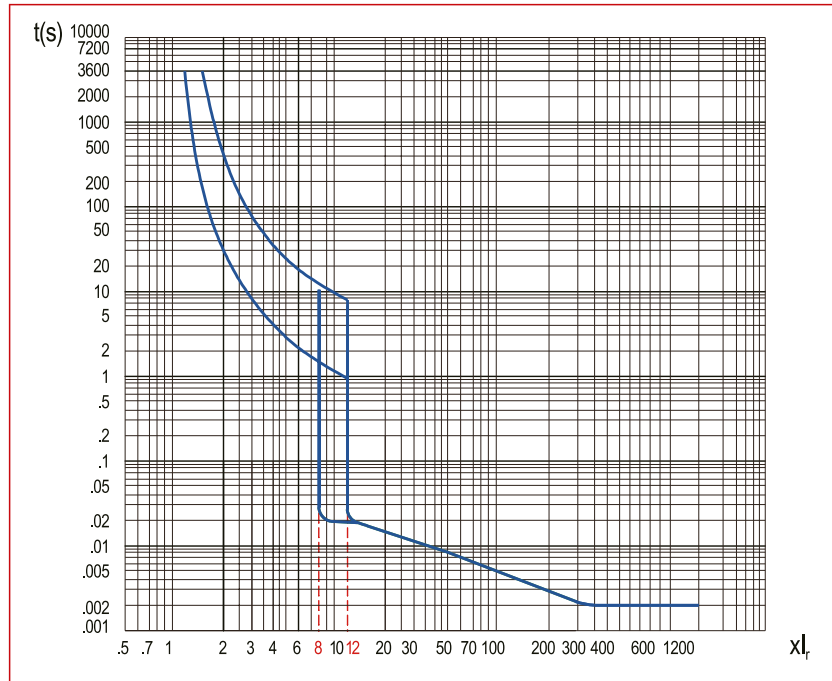
Size type		1
Poles		3
Rated operating current		16 - 125A
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		50kA
Release		Thermo-magnetic release - Type A
Rated insulation voltage U _i		1000V
Rated impulse withstand voltage U _{imp}		8kV
Rated ultimate short-circuit breaking capacity I _{cu}	AC 380/400/415V	50kA
	AC 440V	50kA
	AC 500V	40kA
	AC 660/690V	8kA
Rated service breaking capacity I _{cs}	AC 380/400/415V	50kA
	AC 440V	50kA
	AC 500V	40kA
	AC 660/690V	8kA
Pollution degree		3
IP Rating		IP20
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability		15000 operation cycles
Electrical endurance	AC 415V, I _n	8000 operation cycles
	AC 690V, I _n	2000 operation cycles
Weight		1.19kg

Dimensions



MCCB MX Size 1, 3 Pole, 50kA

Tripping Characteristic: Type A



DESCRIPTION	AVAILABLE	ORDER NO.
16 to 125A with Thermomagnetic Release Unit		
Moulded Case Circuit Breaker Type A, 3 pole, 50kA, 16A		MX116231
Moulded Case Circuit Breaker Type A, 3 pole, 50kA, 20A		MX120231
Moulded Case Circuit Breaker Type A, 3 pole, 50kA, 25A		MX125231
Moulded Case Circuit Breaker Type A, 3 pole, 50kA, 32A		MX132231
Moulded Case Circuit Breaker Type A, 3 pole, 50kA, 40A		MX140231
Moulded Case Circuit Breaker Type A, 3 pole, 50kA, 50A		MX150231
Moulded Case Circuit Breaker Type A, 3 pole, 50kA, 63A		MX163231
Moulded Case Circuit Breaker Type A, 3 pole, 50kA, 80A		MX180231
Moulded Case Circuit Breaker Type A, 3 pole, 50kA, 100A		MX110231
Moulded Case Circuit Breaker Type A, 3 pole, 50kA, 125A		MX112231



On stock, usually ready for delivery on the day of order

MCCB MX Size 1, 4 Pole, 36kA



MX116441

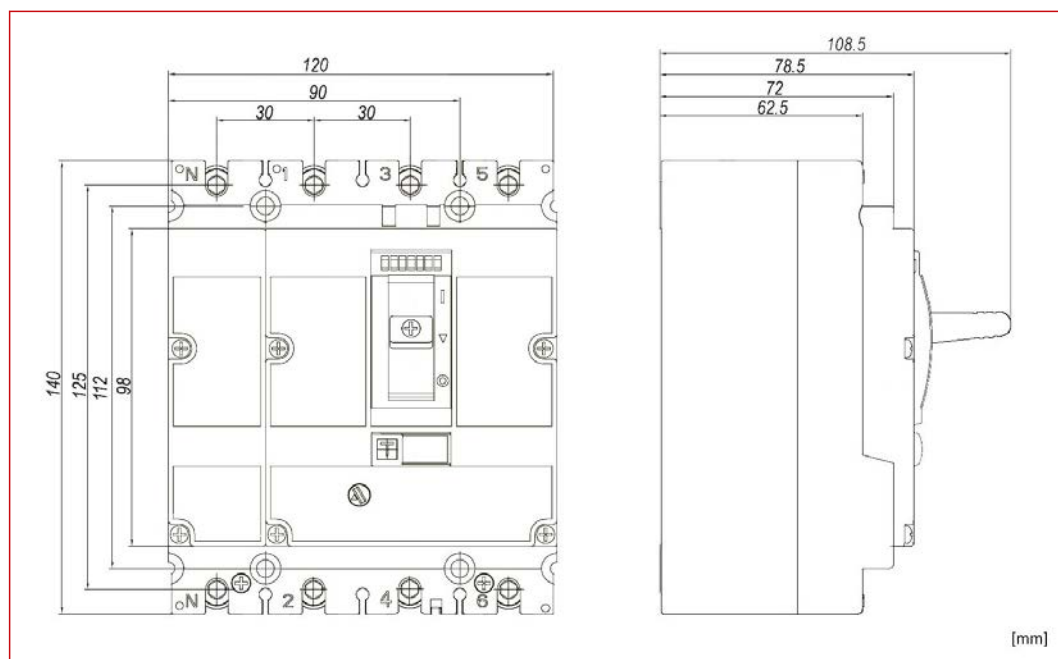
Schrack-Info

- For system and line protection
- Adjustable overload release 0.7 - 1 x I_n
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 36kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 16A to 125A

Technical Data

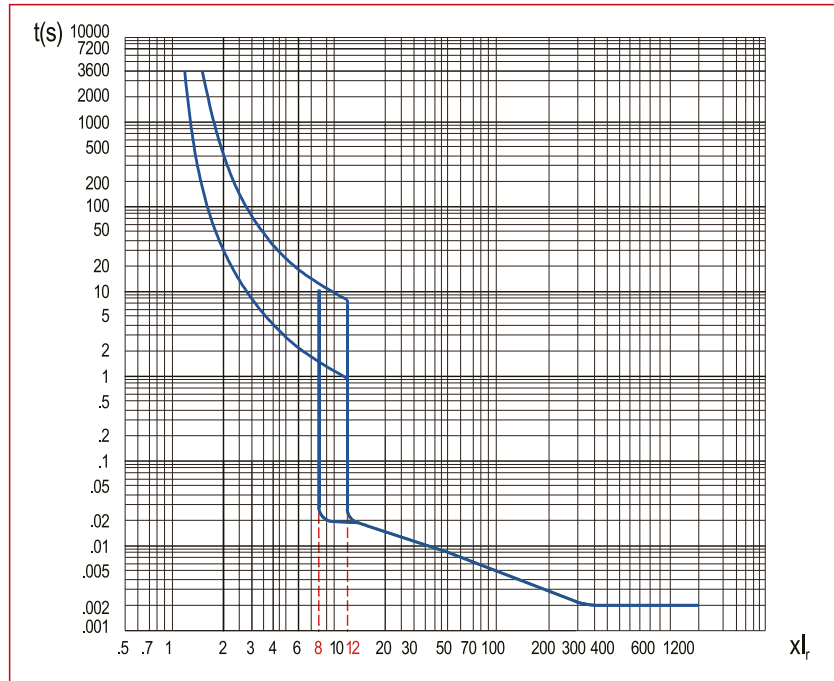
Size type		1
Poles		4
Rated operating current (A)		16 - 125A
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		36kA
Release		Thermo-magnetic release - Type A
Rated insulation voltage U _i		1000V
Rated impulse withstand voltage U _{imp}		8kV
Rated ultimate short-circuit breaking capacity I _{cu}	AC 380/400/415V	36kA
	AC 440V	36kA
	AC 500V	25kA
	AC 660/690V	6kA
Rated service breaking capacity I _{cs}	AC 380/400/415V	36kA
	AC 440V	36kA
	AC 500V	25kA
	AC 660/690V	6kA
Pollution degree		3
IP Rating		IP20
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability		15000 operation cycles
Electrical endurance operation cycles	AC 415V, I _n	8000 operation cycles
	AC 690V, I _n	2000 operation cycles
Weight		1.55kg

Dimensions



MCCB MX Size 1, 4 Pole, 36kA

Tripping Characteristic: Type A



DESCRIPTION	AVAILABLE	ORDER NO.
16 to 125A with Thermomagnetic Release Unit		
Moulded Case Circuit Breaker Type A, 4 pole, 36kA, 16A		MX116441
Moulded Case Circuit Breaker Type A, 4 pole, 36kA, 20A		MX120441
Moulded Case Circuit Breaker Type A, 4 pole, 36kA, 25A		MX125441
Moulded Case Circuit Breaker Type A, 4 pole, 36kA, 32A		MX132441
Moulded Case Circuit Breaker Type A, 4 pole, 36kA, 40A		MX140441
Moulded Case Circuit Breaker Type A, 4 pole, 36kA, 50A		MX150441
Moulded Case Circuit Breaker Type A, 4 pole, 36kA, 63A		MX163441
Moulded Case Circuit Breaker Type A, 4 pole, 36kA, 80A		MX180441
Moulded Case Circuit Breaker Type A, 4 pole, 36kA, 100A		MX110441
Moulded Case Circuit Breaker Type A, 4 pole, 36kA, 125A		MX112441



On stock, usually ready for delivery on the day of order

MCCB MX Size 1, 4 Pole, 50kA



MX116241

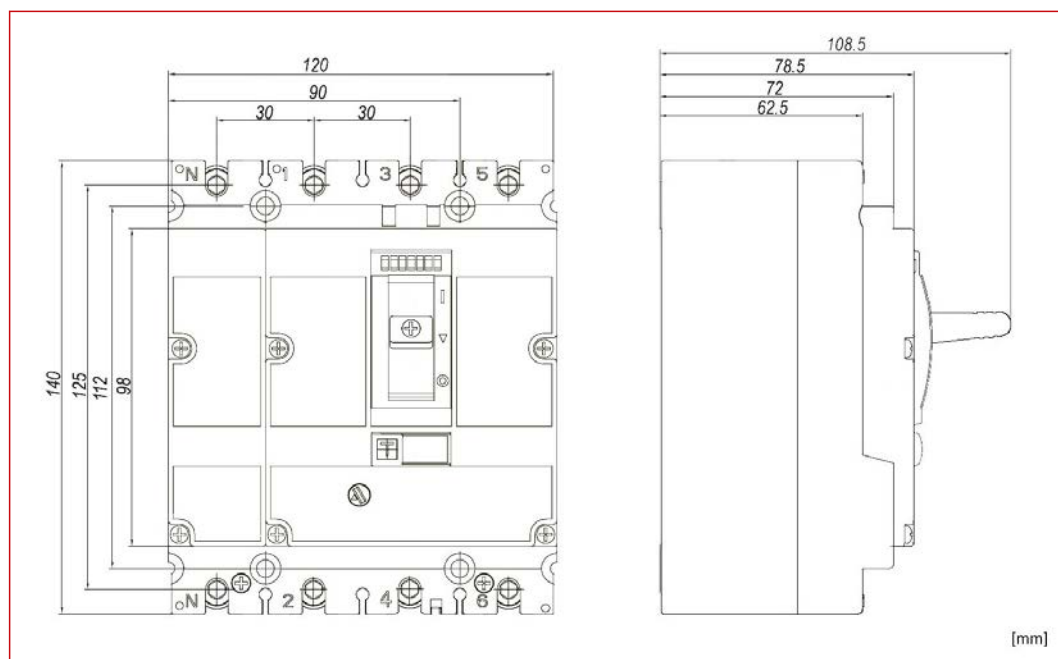
Schrack-Info

- For system and line protection
- Adjustable overload release 0.7 - 1 x I_n
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 50kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 16A to 125A

Technical Data

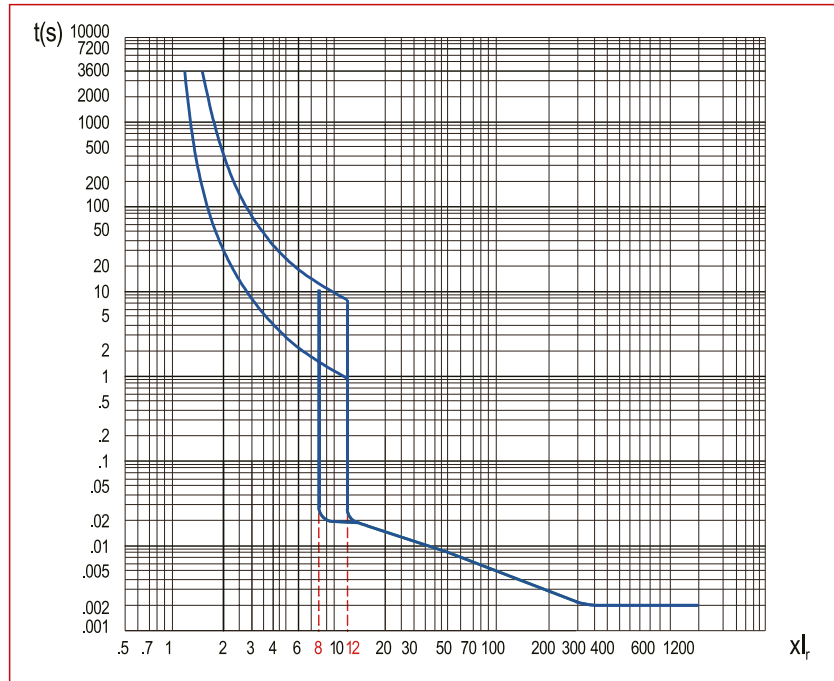
Size type		1
Poles		4
Rated operating current		16 - 125A
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		50kA
Release		Thermomagnetic release - Type A
Rated insulation voltage U _i		1000V
Rated impulse withstand voltage U _{imp}		8kV
Rated ultimate short-circuit breaking capacity I _{cu}	AC 380/400/415V	50kA
	AC 440V	50kA
	AC 500V	40kA
	AC 660/690V	8kA
Rated service breaking capacity I _{cs}	AC 380/400/415V	50kA
	AC 440V	50kA
	AC 500V	40kA
	AC 660/690V	8kA
Pollution degree		3
IP Rating		IP20
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability		15000 operation cycles
Electrical endurance	AC 415V, I _n	8000 operation cycles
	AC 690V, I _n	2000 operation cycles
Weight		1.55kg

Dimensions



MCCB MX Size 1, 4 Pole, 50kA

Tripping Characteristic: Type A



DESCRIPTION	AVAILABLE	ORDER NO.
16 to 125A with Thermomagnetic Release Unit		
Moulded Case Circuit Breaker Type A, 4 pole, 50kA, 16A		MX116241
Moulded Case Circuit Breaker Type A, 4 pole, 50kA, 20A		MX120241
Moulded Case Circuit Breaker Type A, 4 pole, 50kA, 25A		MX125241
Moulded Case Circuit Breaker Type A, 4 pole, 50kA, 32A		MX132241
Moulded Case Circuit Breaker Type A, 4 pole, 50kA, 40A		MX140241
Moulded Case Circuit Breaker Type A, 4 pole, 50kA, 50A		MX150241
Moulded Case Circuit Breaker Type A, 4 pole, 50kA, 63A		MX163241
Moulded Case Circuit Breaker Type A, 4 pole, 50kA, 80A		MX180241
Moulded Case Circuit Breaker Type A, 4 pole, 50kA, 100A		MX110241
Moulded Case Circuit Breaker Type A, 4 pole, 50kA, 125A		MX112241



On stock, usually ready for delivery on the day of order

Combination MCCB Size 1 and RCD



MX110241F1

Schrack-Info

MX180231F1: Combination MX180231 MCCB (Type A, 3P, 50kA, 80A) and RCD
 MX180241F1: Combination MX180241 MCCB (Type A, 4P, 50kA, 80A) and RCD
 MX110231F1: Combination MX110231 MCCB (Type A, 3P, 50kA, 100A) and RCD
 MX110241F1: Combination MX110241 MCCB (Type A, 4P, 50kA, 100A) and RCD
 MX112231F1: Combination MX112231 MCCB (Type A, 3P, 50kA, 125A) and RCD
 MX112241F1: Combination MX112241 MCCB (Type A, 4P, 50kA, 125A) and RCD

Residual Current Device:

- Release Type A
- Four-step adjustable rated residual operating current $I_{\Delta n}$ = 30-100-300-1000mA
- Adjustable delay time 0-60-200-500ms

Technical Data: RCD

Rated operating current I_n (40°C)		125
Size		1
Poles		3P, 4P
Rated insulation voltage U_i		1000V
Rated impulse withstand voltage U_{imp}		8kV
Rated operational voltage U_e (50/60Hz)		380/440/415VAC, 440VAC
Rated residual operating current $I_{\Delta n}$		0.03-0.1-0.3-1A
Rated residual non-operating current $I_{\Delta no}$		$0.5I_{\Delta n}$ A
Limit non-actuating time		Δt : 0-60-200-500ms*
Breaking time		100-300-500-1000ms
Rated residual making and breaking capacity $I_{\Delta m}$		$0.25I_{cu}$ kA
Standard		IEC/EN 60947-2
Ambient temperature		-25°C ~ 70°C
Arcing distance		0
Dimension with circuit breaker	Width (3P/4P)	90mm/120mm
	Height	205mm
	Depth	78.5mm
Weight	3P	0.43kg
	4P	0.51kg

Note: *When the residual operating current is set to 0.03A, the limit non-actuating time must be set to 0.

Derating Factor for Circuit Breaker with RCD

Model		Derating factor
MX1	80A~100A	0.9
	125A	0.8

DESCRIPTION	AVAILABLE	ORDER NO.
Combination MCCB Type A, 4P, 50kA, 100A and RCD up to 1A		MX110241F1
Combination MCCB Type A, 3P, 50kA, 100A and RCD up to 1A		MX110231F1
Combination MCCB Type A, 3P, 50kA, 125A and RCD up to 1A		MX112231F1
Combination MCCB Type A, 4P, 50kA, 80A and RCD up to 1A		MX180241F1
Combination MCCB Type A, 3P, 50kA, 80A and RCD up to 1A		MX180231F1
Combination MCCB Type A, 3P, 50kA, 80A and RCD up to 1A		MX112241F1

MCCB MX Size 1, Selectivity table

Downstream	Upstream	MX1 MCCB									
	In(A)	16	20	25	32	40	50	63	80	100	125
AM MCB	≤10	0.19kA	0.19kA	0.3kA	0.4kA	0.5kA	0.5kA	0.5kA	0.63kA	0.8kA	1kA
	16			0.3kA	0.4kA	0.5kA	0.5kA	0.5kA	0.63kA	0.8kA	1kA
	20					0.5kA	0.5kA	0.5kA	0.63kA	0.8kA	1kA
	25						0.5kA	0.5kA	0.63kA	0.8kA	1kA
	32							0.5kA	0.63kA	0.8kA	1kA
	40								0.63kA	0.8kA	1kA
	63									0.8kA	1kA
AK RCBO 1+N	≤10	0.21kA	0.21kA	0.33kA	0.42kA	0.54kA	0.54kA	0.54kA	0.65kA	0.83kA	1.1kA
	13			0.33kA	0.42kA	0.54kA	0.54kA	0.54kA	0.65kA	0.83kA	1.1kA
	16			0.33kA	0.42kA	0.54kA	0.54kA	0.54kA	0.65kA	0.83kA	1.1kA
	20					0.54kA	0.54kA	0.54kA	0.65kA	0.83kA	1.1kA
	25						0.54kA	0.54kA	0.65kA	0.83kA	1.1kA
	32							0.54kA	0.65kA	0.83kA	1.1kA
	40								0.65kA	0.83kA	1.1kA
	50									0.83kA	1.1kA
AK RCBO 3+N	≤10	0.25kA	0.25kA	0.35kA	0.42kA	0.55kA	0.55kA	0.55kA	0.66kA	0.85kA	1.3kA
	13			0.35kA	0.42kA	0.55kA	0.55kA	0.55kA	0.66kA	0.85kA	1.3kA
	16			0.35kA	0.42kA	0.55kA	0.55kA	0.55kA	0.66kA	0.85kA	1.3kA
	20					0.55kA	0.55kA	0.55kA	0.66kA	0.85kA	1.3kA
	25						0.55kA	0.55kA	0.66kA	0.85kA	1.3kA
	32							0.55kA	0.66kA	0.85kA	1.3kA
	40								0.66kA	0.85kA	1.3kA
AMxxx5xx MCB 1+N/1TE	≤10	0.21kA	0.21kA	0.33kA	0.42kA	0.54kA	0.55kA	0.55kA	0.65kA	0.83kA	1.1kA
	16			0.33kA	0.42kA	0.54kA	0.55kA	0.55kA	0.65kA	0.83kA	1.1kA
	20					0.54kA	0.55kA	0.55kA	0.65kA	0.83kA	1.1kA
	25						0.55kA	0.55kA	0.65kA	0.83kA	1.1kA
	32							0.55kA	0.65kA	0.83kA	1.1kA
MX1 MCCB	16					0.4kA	0.5kA	0.5kA	0.63kA	0.8kA	1kA
	20						0.5kA	0.5kA	0.63kA	0.8kA	1kA
	25							0.5kA	0.63kA	0.8kA	1kA
	32								0.63kA	0.8kA	1kA
	40									0.8kA	1kA
	50										1kA

Notes:

1) No content, indicating no selectivity.

2) 1kA, indicating local selectivity, the number indicates the maximum fault current to achieve selectivity. For example, selectivity can be achieved below 1 kA, and above 1 kA upper and lower level circuit breakers may act simultaneously.

MCCB MX Size 1 - Accessories



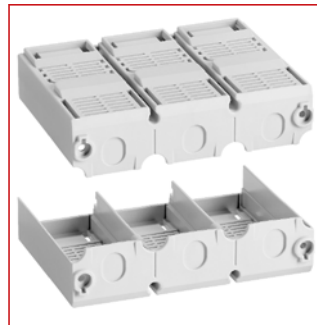
MX190015



MX190125



MX190172



MX190780



MX196730



MX199832



MX199471



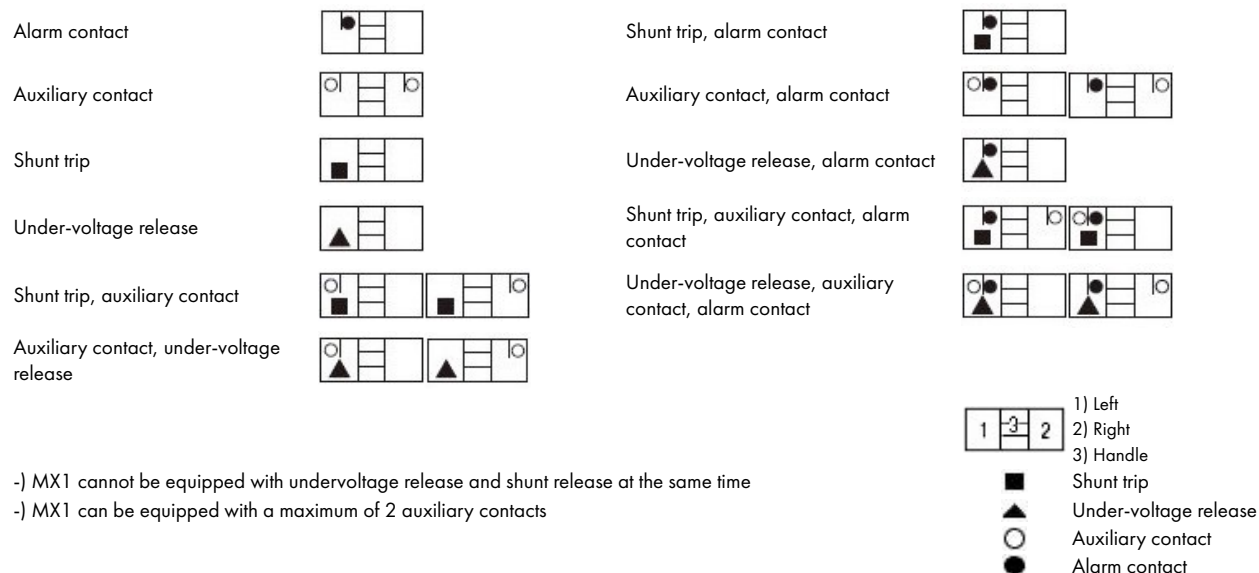
MX190783

Schrack-Info

Wide range of accessories:

- Auxiliary contacts
- Rotary handles, door coupling handles
- Under voltage release units, shunt-trips
- Residual current release units
- Connection accessories
- General accessories

Installation Diagram for Accessories



MCCB MX Size 1 - Accessories

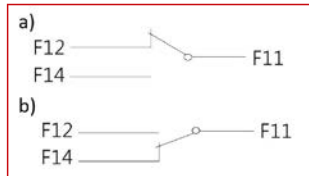
Derating Factor Table for Circuit Breaker with Residual Current Protection Module

Model		Derating factor
MX1 MCCB + MX1 RCD	16A ~ 63A	1
	80A ~ 100A	0.9
	125A	0.8

Derating Factor Table for Circuit Breakers with Plug-In and Drive-In socket

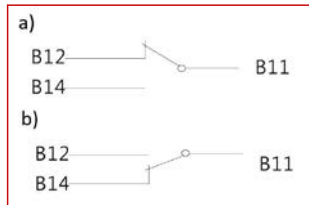
Model		Derating factor
MX1	16A ~ 100A	1
	125A	0.95

Auxiliary Contact: Indication of Circuit Breaker Status



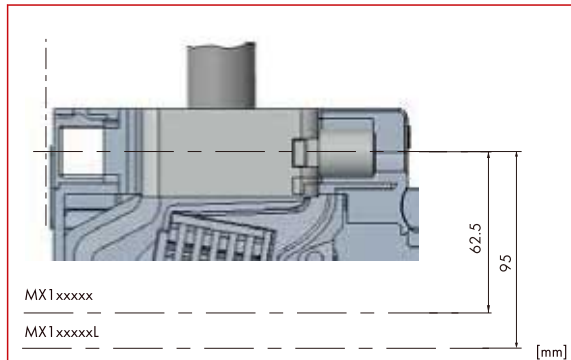
- a) Circuit breaker is at breaking status
- b) Circuit breaker is at making status

Alarm Contact: Indication of Circuit Breaker Status



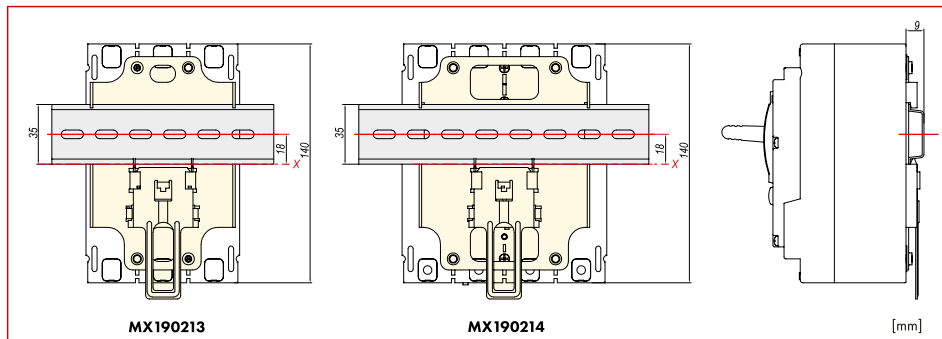
- a) Circuit breaker is at breaking or making status
- b) Circuit breaker is at free tripping status

Box Terminal for MX1



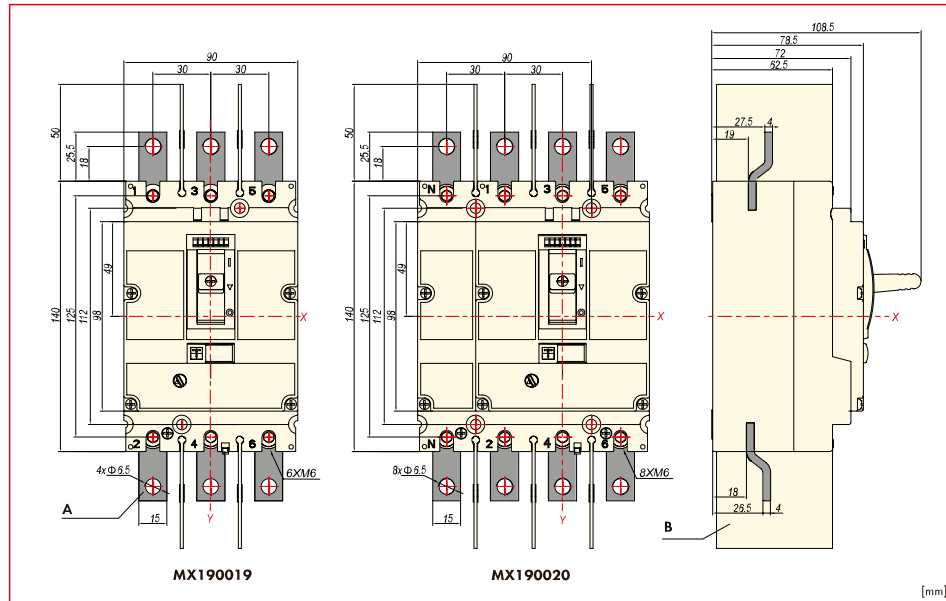
Suitable for aluminum and Cu conductors.
Allows the direct connection of bare conductors.

Clip Plate 35mm Din-S for MX1 3- and 4 Pole



MCCB MX Size 1 - Accessories

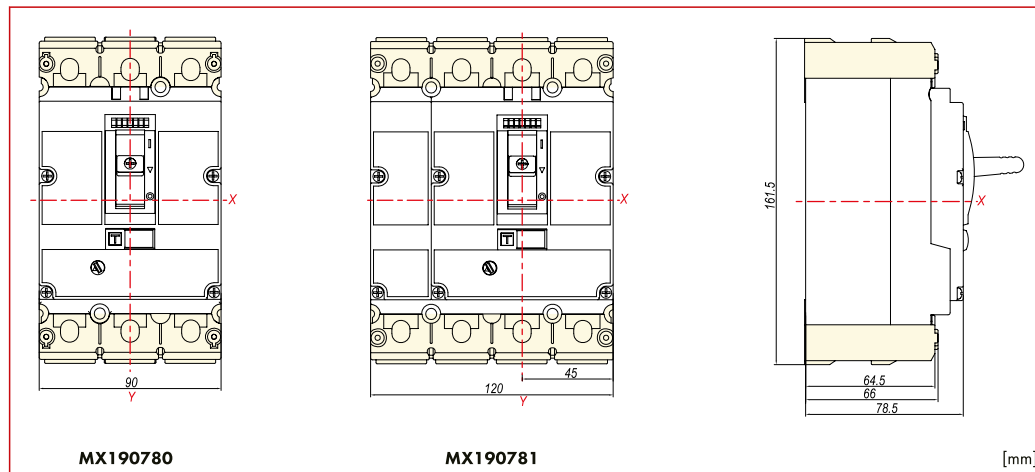
Connection Extension for MX1 3- and 4 Pole



A	Top view
B	Phase separator
X	Horizontal centre
Y	Vertical centre

Allows for a more flexible connection. Installation allows the distance between adjacent poles at the inputs and outputs of the circuit breaker to be increased.

Terminal Cover Short for MX1 3- and 4 Pole



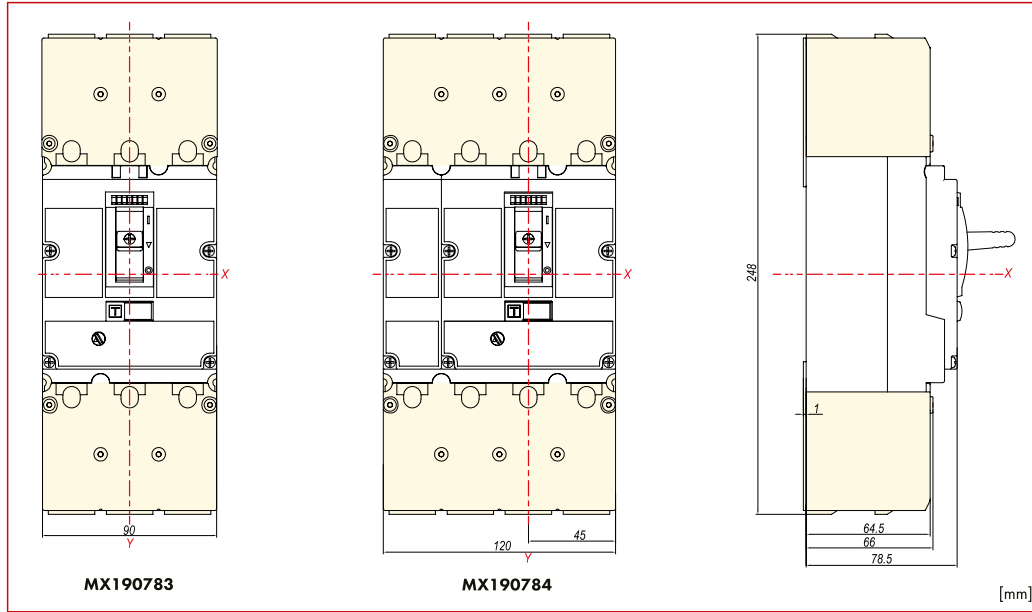
Protection class: IP40

Serves to protect the contacts against contact and also serves as phase separation.

If the voltage exceeds 500V, the terminal cover must be used.

MCCB MX Size 1 - Accessories

Terminal Cover Long for MX1 3- and 4 Pole

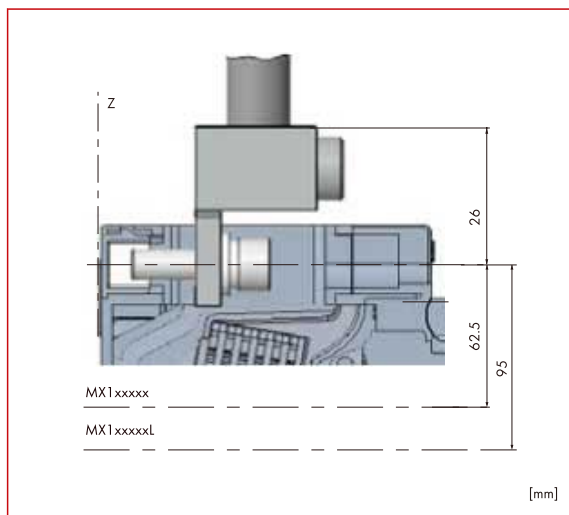


Protection class: IP40

Serves to protect the contacts against contact and also serves as phase separation.

If the voltage exceeds 500V, the terminal cover must be used.

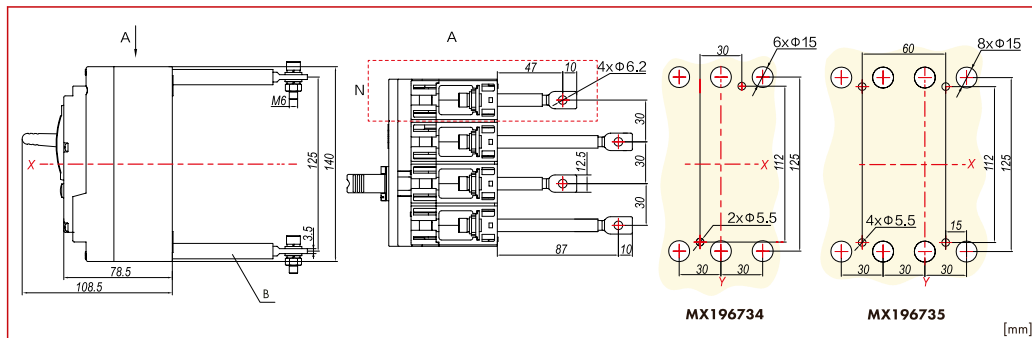
Tunnel Terminal 1x16-95mm² for MX1



Suitable for aluminum and Cu conductors.

It enables the direct connection of bare conductors.

Rear Connection for MX1 3- and 4 Pole

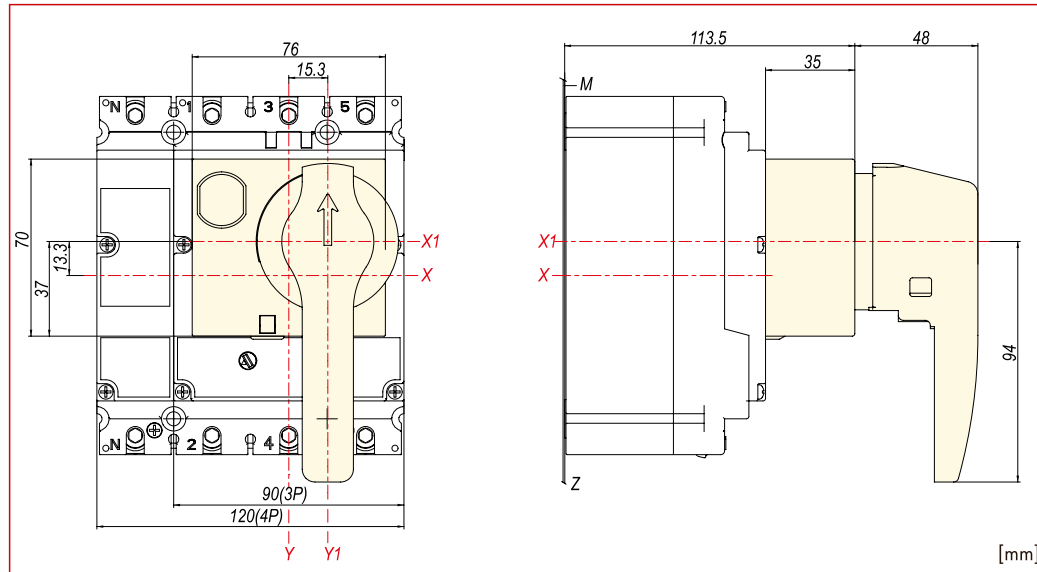


A	Top view
B	Connection extension
N	Neutral conductor
X	Horizontal centre
Y	Vertical centre

Allows the circuit breaker to be connected behind the mounting level.

MCCB MX Size 1 - Accessories

Rotary Handle Complete, Lockable for MX1



X	Horizontal centre Switch
X1	Horizontal centre rotary handle
Y	Vertical centre Switch
Y1	Vertical centre rotary handle

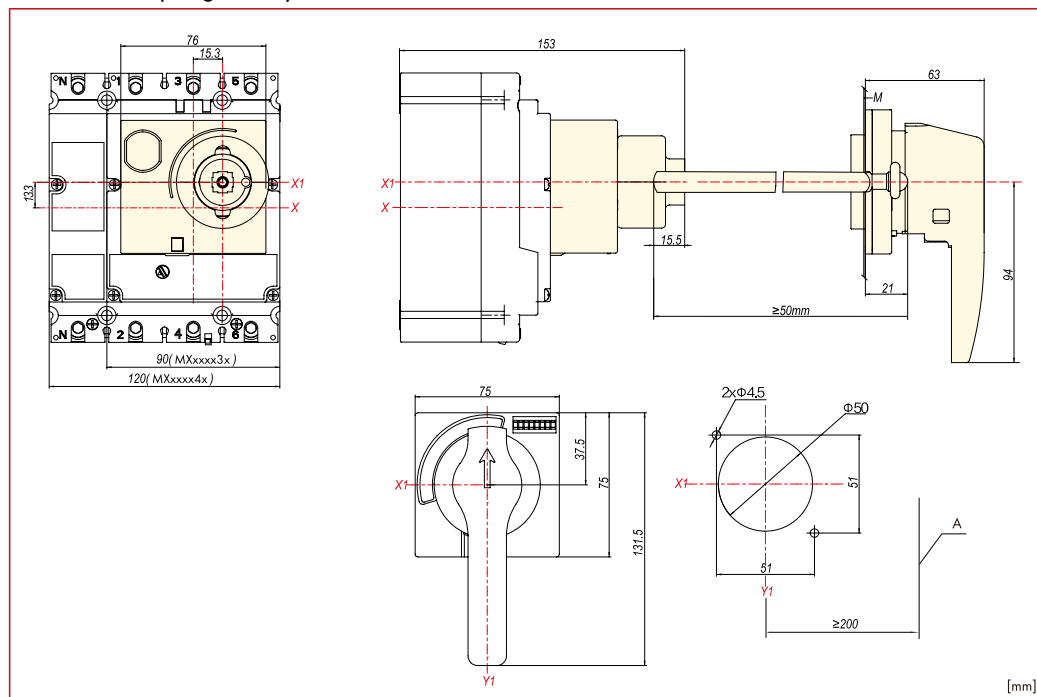
Protection class: IP40

Activating position 0, I and released, in 3 positions

The rotary handle can be locked with a padlock in the OFF state.

Attention: two versions for thermomagnetic or electronic triggers.

Door Coupling Rotary Handle, Lockable for MX1



X	Horizontal centre switch
X1	Horizontal centre rotary handle
Y	Vertical centre switch
Y1	Vertical centre rotary handle

Protection class: IP50

Activation position 0, I and triggered, in 3 positions

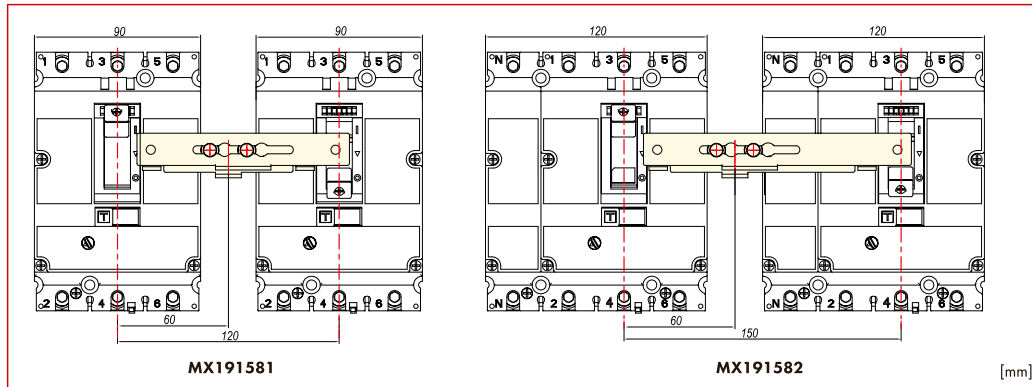
The rotary handle can be locked with a padlock in the OFF state.

Attention: two versions for thermomagnetic or electronic triggers

Control cabinet door locked in position "I"

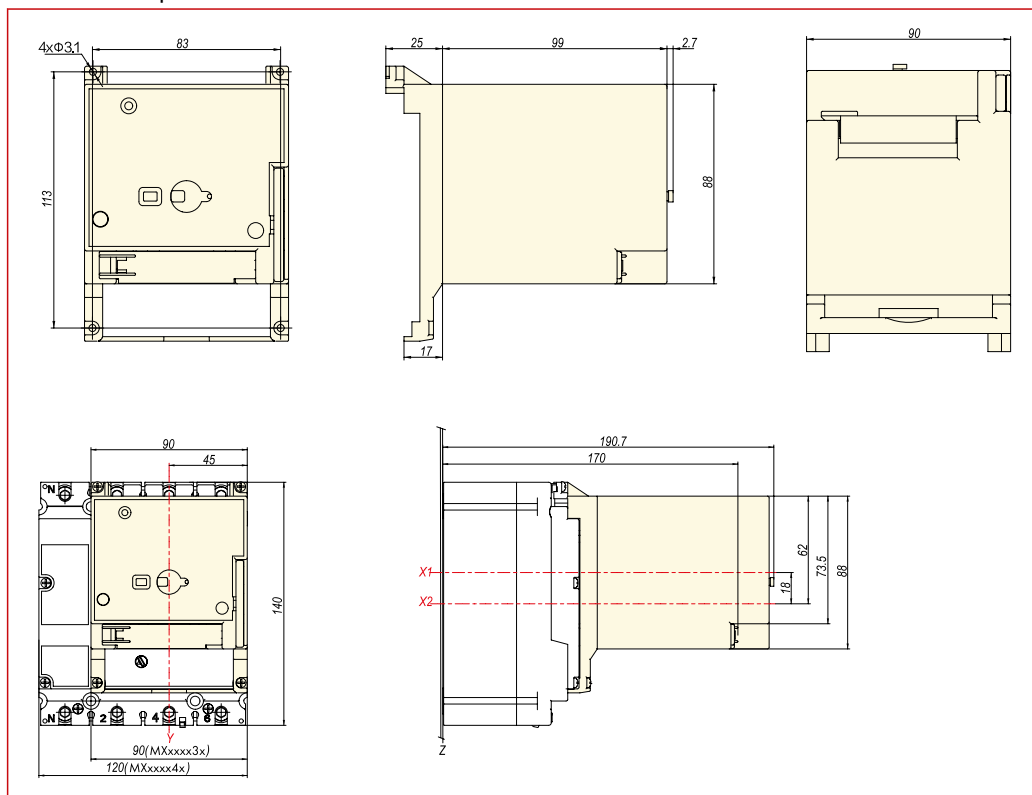
MCCB MX Size 1 - Accessories

Mechanical Interlock for MX1 3- and 4 Pole

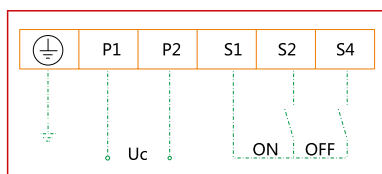


When using this locking device with two circuit breakers of the same size, only one of them can be operated. For manual locking of two circuit breakers.

Remote Operator for MX1



X1	Horizontal centre remote operator
X2	Horizontal centre switch
Y	Vertical centre

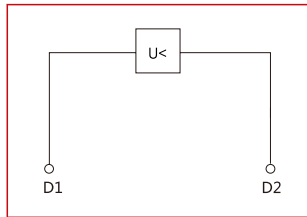


It is suitable for switching on, off and switching on circuit breakers over long distances, as well as for automation applications.

- Protection class: IP40
- Display 0, I and triggered in 3 positions
- Switching between Automatic and Manual Operation
- Automatic switching via electrical control inputs
- Manual switching via key.
- When control voltage is between 85% and 110%, the circuit breaker can be reliably switched on and off.

MCCB MX Size 1 - Accessories

Under Voltage Release



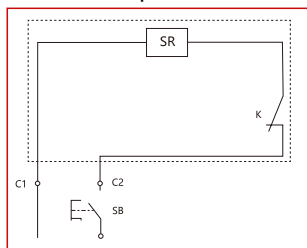
Immediate triggering of circuit breakers or switch disconnectors when the supply voltage drops below 35% - 70%.

Can be used for EMERGENCY STOP devices.

Installed in the circuit breaker.










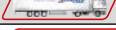















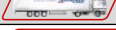











If the undervoltage trigger is de-energized, contacting the switch main contacts during switch-on tests is safely prevented.

Shunt Trip



Instantaneous tripping of circuit-breaker or switch-disconnector on voltage pulse or application of continuous voltage in the range of 70% to 110% of the rated control voltage. If the shunt release is live, contacting of the breaker main contacts is reliably prevented during closing attempts.

 MCCB MX Size 1 - Accessories

DESCRIPTION	AVAILABLE	ORDER NO.
General Accessories		
Toggle Lever Locking Device for MX1		MX190199
Clip Plate 35mm DIN-S for MX1 3 pole		MX190213
Clip Plate 35mm DIN-S for MX1 4 pole		MX190214
Connecting Technic, Accessories		
Box Terminal for MX1 2.5-75mm ² , 1 piece		MX190015
Connection extension 3 pole for MX1, 6 pieces		MX190019
Connection extension 4 pole for MX1, 8 pieces		MX190020
Terminal Cover short 3 pole for MX1		MX190780
Terminal Cover short 4 pole for MX1		MX190781
Terminal Cover long 3 pole for MX1		MX190783
Terminal Cover long 4 pole for MX1		MX190784
Tunnel Terminal 1x16-95mm ² for MX1, 1 piece		MX196730
Rear Connection, 3 pole for MX1		MX196734
Rear Connection, 4 pole for MX1		MX196735
Socket for MX1 3 pole		MX196871
Socket for MX1 4 pole		MX196872
Safety release for socket MX1		MX196873
Phase separator plates MX1		MX196870
Rotary Handles, Door Coupling Handles, Accessories		
Rotary Handle complete, lockable for MX1		MX190125
Door Coupling Rotary Handle, lockable, for MX1		MX190172
Mechanical Interlock for MX1 3 pole		MX191581
Mechanical Interlock for MX1 4 pole		MX191582
Under Voltage Release Units, Shunt-trips and Accessories		
Under Voltage Release 110VAC for MX1		MX199462
Under Voltage Release 220-240VAC for MX1		MX199471
Under Voltage Release 380-415VAC for MX1		MX199473
Under Voltage Release 24VDC for MX1		MX199481
Under Voltage Release 220VDC for MX1		MX199489
Shunt trip 110VAC for MX1		MX199567
Shunt trip 220-240VAC for MX1		MX190154
Shunt trip 380-415VAC for MX1		MX191607
Shunt trip 24VDC for MX1		MX199736
Shunt trip 220VDC for MX1		MX199742
Remote Operator 24VDC for MX1		MX199837
Remote Operator 110VAC/110-120VDC for MX1		MX199838
Remote Operator 220-240VAC/220VDC for MX1		MX199832
Remote Operator 380-415VAC for MX1		MX199833
Auxiliary Contacts		
Auxiliary contact 1 CO		MX199411
Alarm contact 1 CO		MX199511



On stock, usually ready for delivery on the day of order

MCCB MX Size 2, 3 Pole, 36kA



MX212431

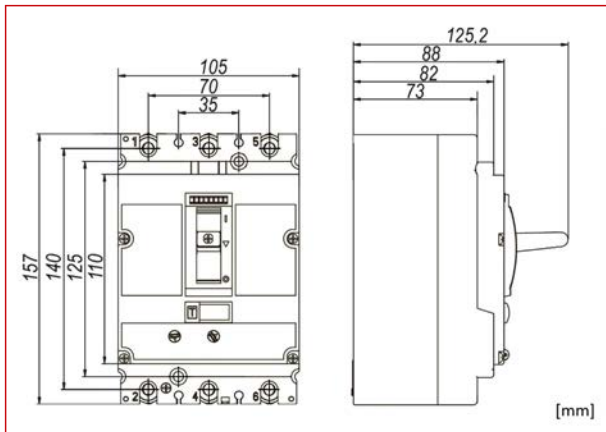
Schrack-Info

- For system, line protection and motor protection
- Adjustable overload release
 - with electronic release unit/motor protection: 0.4 - 1 x I_n
 - with thermomagnetic release unit: 0.7 - 1 x I_n
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 36kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 32A to 250A

Technical Data

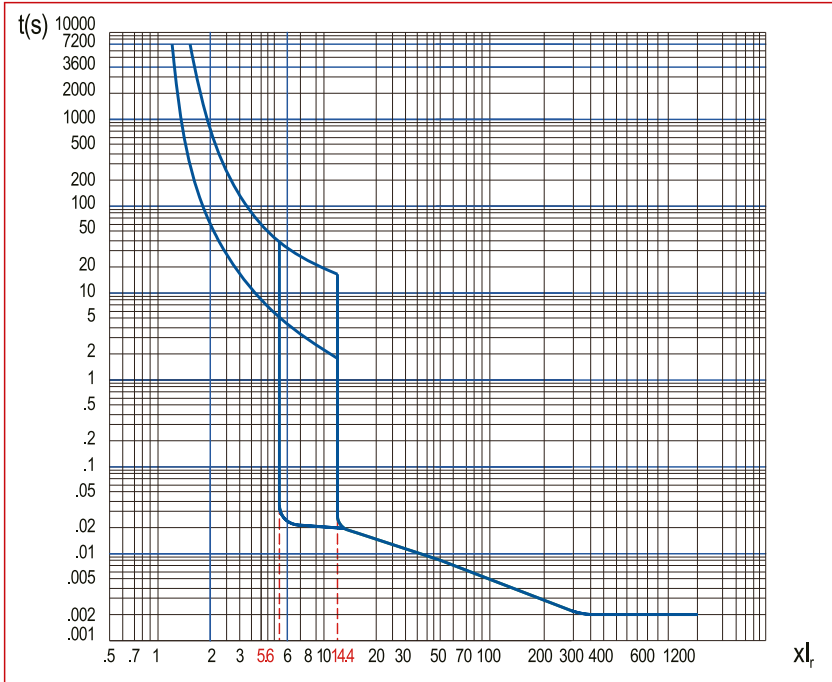
Size type		2
Poles		3
Rated operating current		125 - 250A (Type A); 32 - 250A (Type EN, EM, ENM)
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		36kA
Release		Thermomagnetic release - Type A Electronic release - Type EN Digital electronic release - Type EM Electronic release for motor protection - Type ENM
Rated insulation voltage U _i		1000V
Rated impulse withstand voltage U _{imp}		8kV
Rated ultimate short-circuit breaking capacity I _{cu}	AC 380/400/415V	36kA
	AC 440V	36kA
	AC 500V	25kA
	AC 660/690V	6kA
Rated service breaking capacity I _{cs}	AC 380/400/415V	36kA
	AC 440V	36kA
	AC 500V	25kA
	AC 660/690V	6kA
Rated short-time withstand current I _{cw} (1s)		1kA (32A, 63A); 2kA (100A, 160A) 3kA (250A)
Pollution degree		3
IP Rating		IP20
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability		15000 operation cycles
Electrical endurance	AC 415V, I _n	6000 operation cycles
	AC 690V, I _n	1500 operation cycles
Weight		1.85kg (Type A) 2kg (Type EN, EM, ENM)

Dimensions

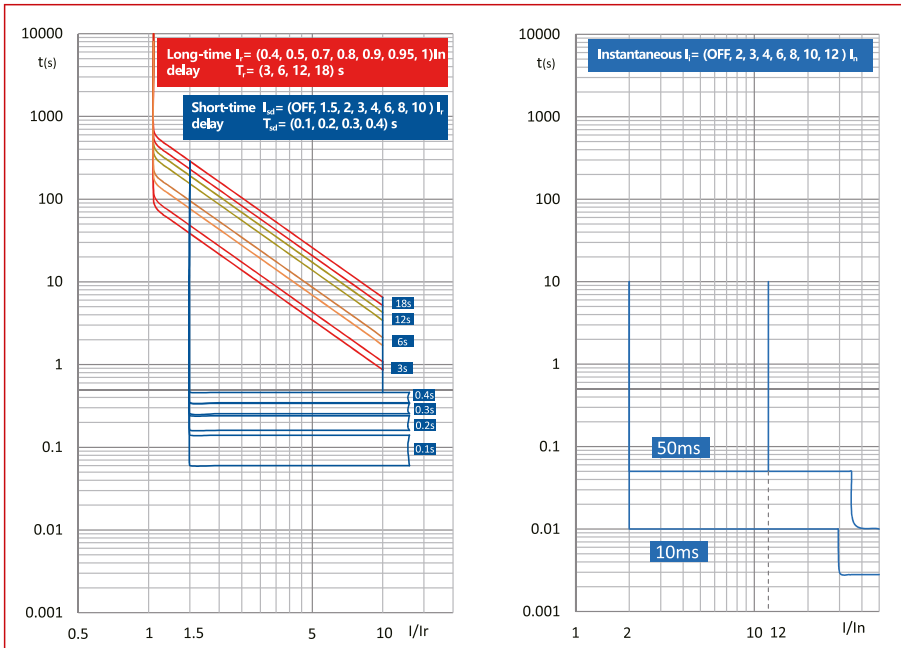


MCCB MX Size 2, 3 Pole, 36kA

Tripping Characteristic: Type A

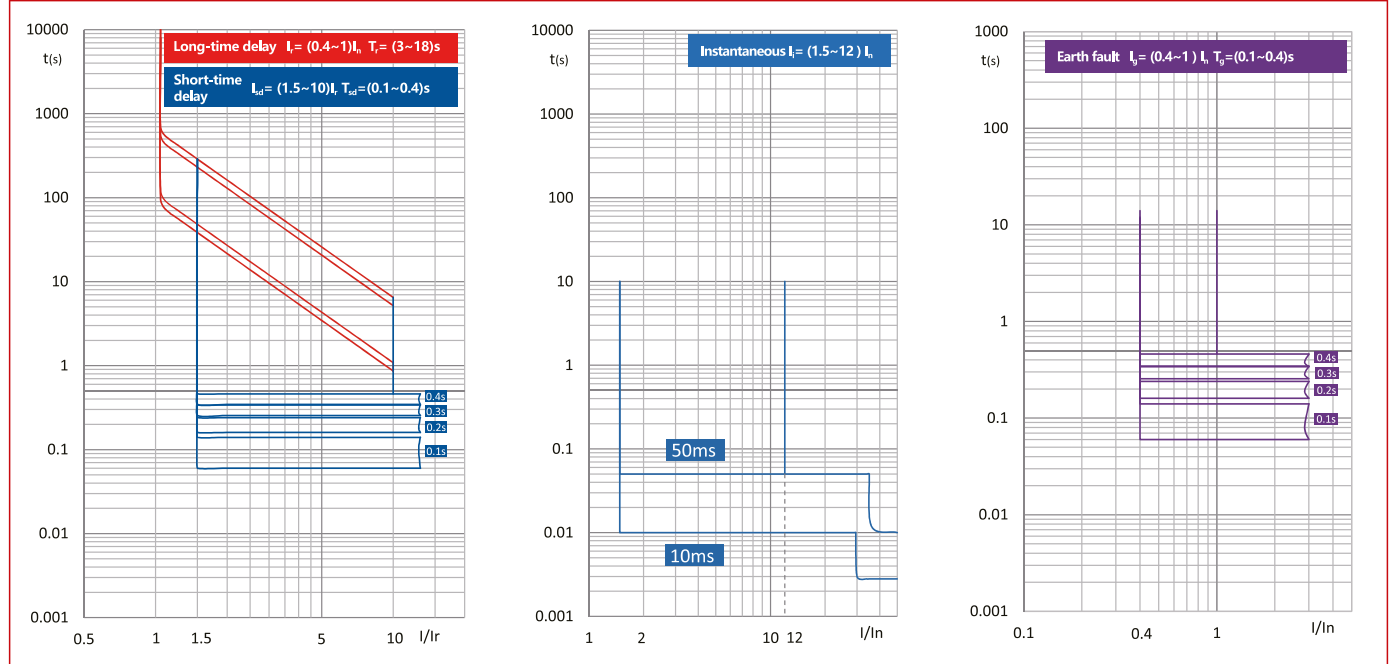


Tripping Characteristic: Type EN

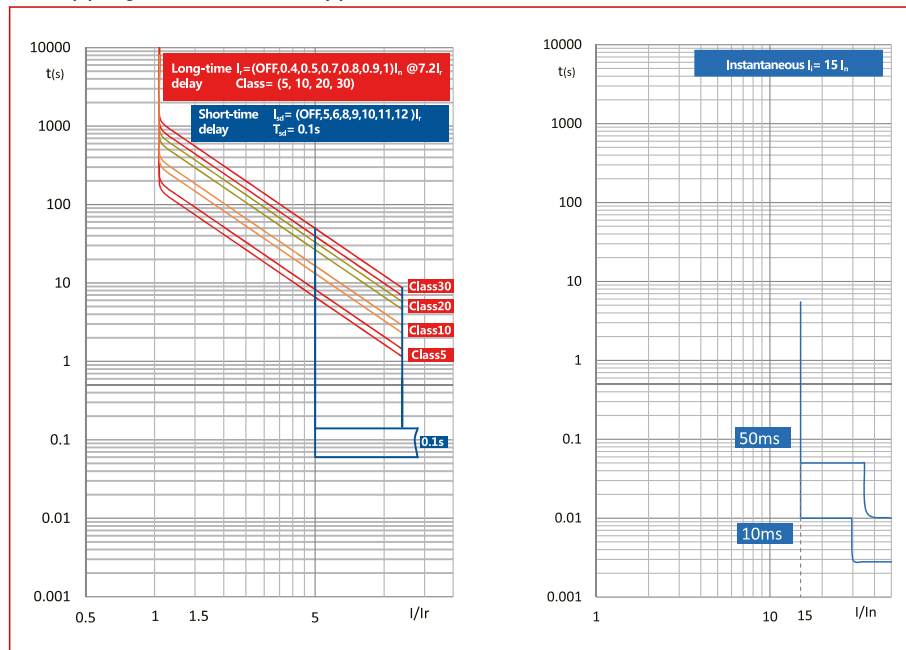


MCCB MX Size 2, 3 Pole, 36kA




















Tripping Characteristic: Type EM



Tripping Characteristic: Type ENM



MCCB MX Size 2, 3 Pole, 36kA

DESCRIPTION	AVAILABLE	ORDER NO.
125 to 250A with Thermomagnetic Release Unit		
Moulded Case Circuit Breaker Type A, 3 pole, 36kA, 125A		MX212431
Moulded Case Circuit Breaker Type A, 3 pole, 36kA, 160A		MX216431
Moulded Case Circuit Breaker Type A, 3 pole, 36kA, 200A		MX220431
Moulded Case Circuit Breaker Type A, 3 pole, 36kA, 250A		MX225431
32 to 250A with Electronic Motor Protection		
Moulded Case Circuit Breaker Type ENM, 3 pole, 36kA, 32A		MX232437
Moulded Case Circuit Breaker Type ENM, 3 pole, 36kA, 63A		MX263437
Moulded Case Circuit Breaker Type ENM, 3 pole, 36kA, 100A		MX210437
Moulded Case Circuit Breaker Type ENM, 3 pole, 36kA, 160A		MX216437
Moulded Case Circuit Breaker Type ENM, 3 pole, 36kA, 250A		MX225437
32 to 250A with Electronic Release Unit		
Moulded Case Circuit Breaker Type EN, 3 pole, 36kA, 32A		MX232432
Moulded Case Circuit Breaker Type EN, 3 pole, 36kA, 63A		MX263432
Moulded Case Circuit Breaker Type EN, 3 pole, 36kA, 100A		MX210432
Moulded Case Circuit Breaker Type EN, 3 pole, 36kA, 160A		MX216432
Moulded Case Circuit Breaker Type EN, 3 pole, 36kA, 250A		MX225432
32 to 250A with Digital Electronic Release Unit		
Moulded Case Circuit Breaker Type EM, 3 pole, 36kA, 32A		MX232433
Moulded Case Circuit Breaker Type EM, 3 pole, 36kA, 63A		MX263433
Moulded Case Circuit Breaker Type EM, 3 pole, 36kA, 100A		MX210433
Moulded Case Circuit Breaker Type EM, 3 pole, 36kA, 160A		MX216433
Moulded Case Circuit Breaker Type EM, 3 pole, 36kA, 250A		MX225433



On stock, usually ready for delivery on the day of order

MCCB MX Size 2, 3 Pole, 50kA



MX212231

Schrack-Info

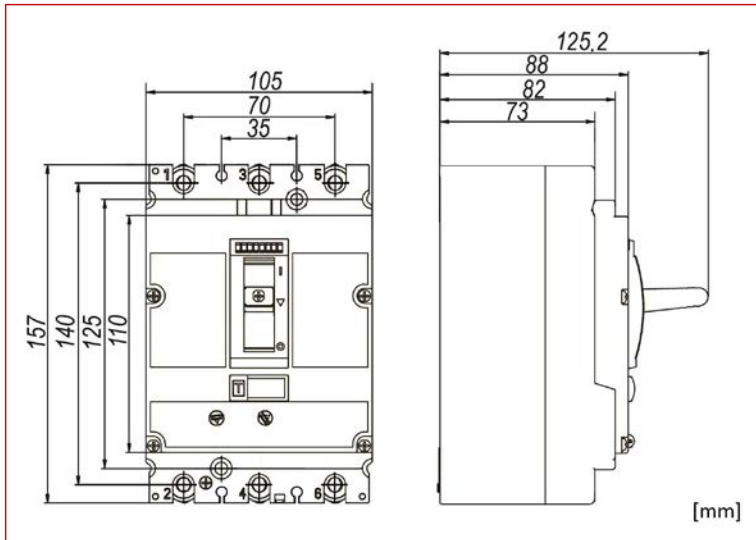
- For system, line protection and motor protection
- Adjustable overload release
 - with thermomagnetic release unit: $0.7 - 1 \times I_n$
 - with electronic release unit/motor protection: $0.4 - 1 \times I_n$
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 50kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 32A to 250A

Technical Data

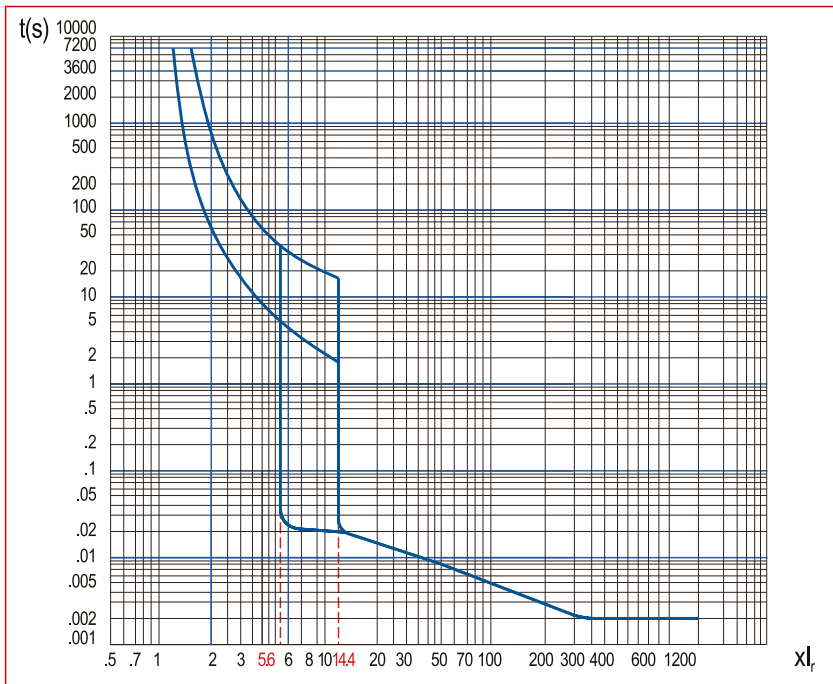
Size type		2
Poles		3
Rated operating current		125 - 250A (Type A); 32 - 250A (Type EN, EM, ENM)
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		50kA
Release		Thermomagnetic release - Type A Electronic release - Type EN Digital electronic release – Type EM Electronic release for motor protection - Type ENM
Rated insulation voltage U_i		1000V
Rated impulse withstand voltage U_{imp}		8kV
Rated ultimate short-circuit breaking capacity I_{cu}	AC 380/400/415V	50kA
	AC 440V	50kA
	AC 500V	40kA
	AC 660/690V	8kA
Rated service breaking capacity I_{cs}	AC 380/400/415V	50kA
	AC 440V	50kA
	AC 500V	40kA
	AC 660/690V	8kA
Rated short-time withstand current I_{cw} (1s)		1kA (32A, 63A)
		2kA (100A, 160A)
		3kA (250A)
Pollution degree		3
IP Rating		IP20
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability		15000 operation cycles
Electrical endurance	AC 415V, I_n	6000 operation cycles
	AC 690V, I_n	1500 operation cycles
Net weight		1.85kg (Type TM)
		2kg (Type EN, EM, ENM)

■ MCCB MX Size 2, 3 Pole, 50kA

■ Dimensions

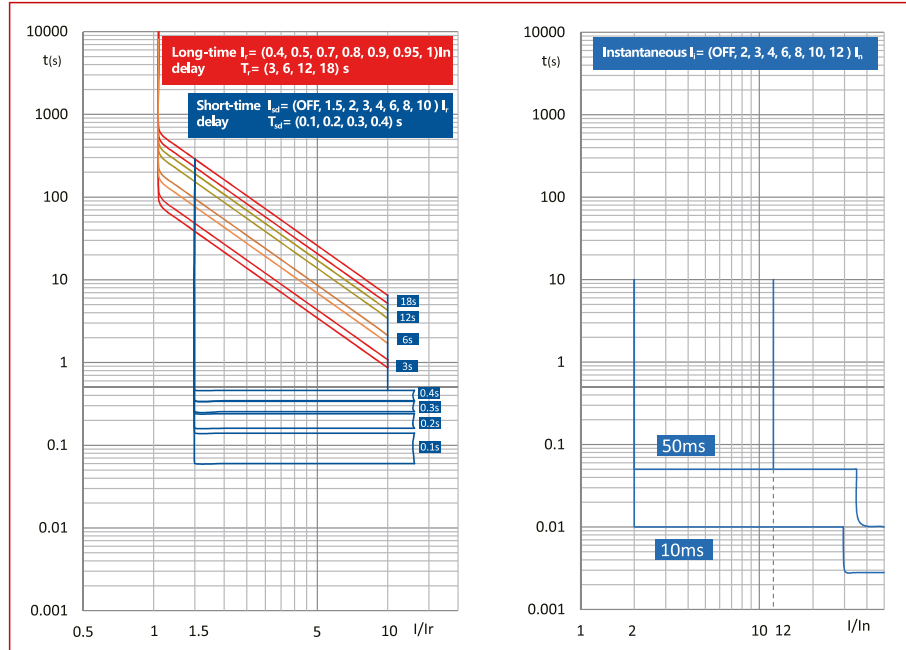


■ Tripping Characteristic: Type A

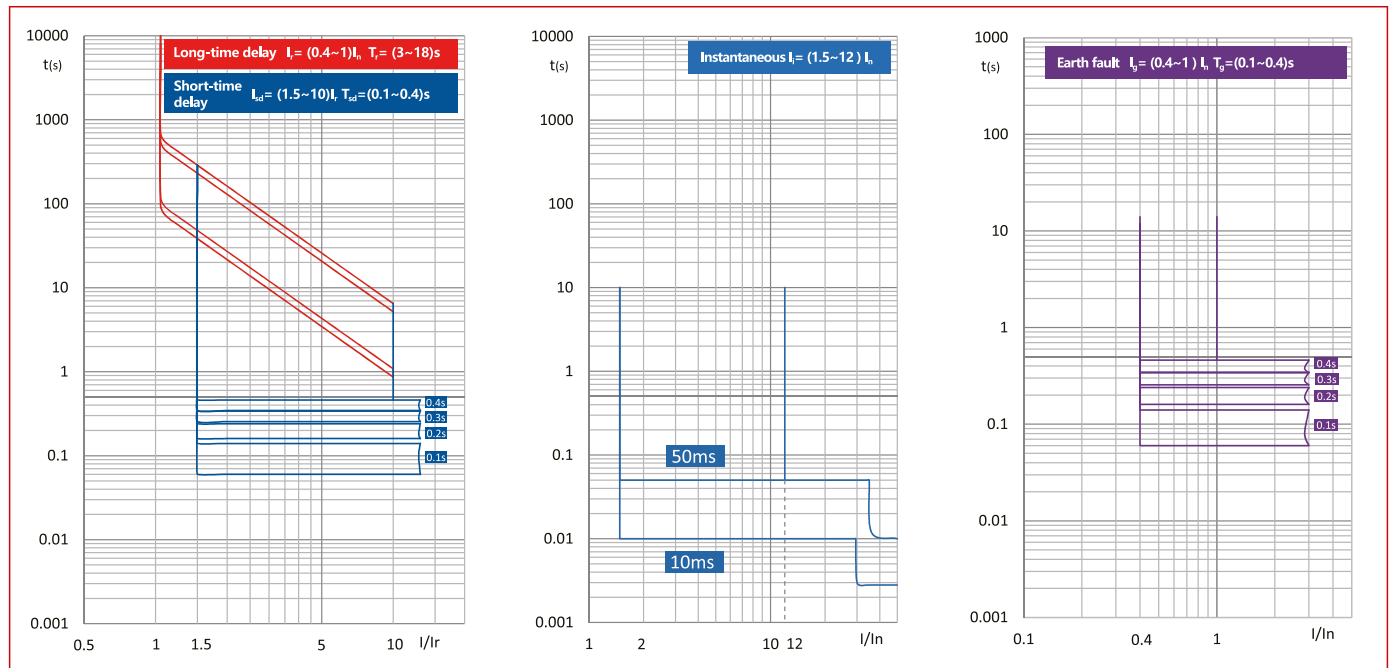


MCCB MX Size 2, 3 Pole, 50kA

Tripping Characteristic: Type EN

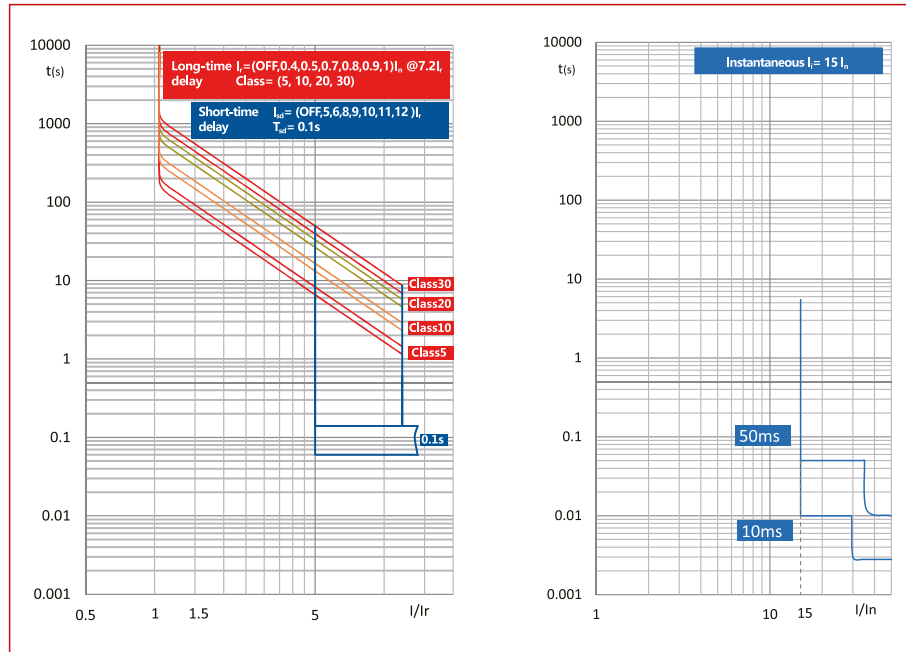


Tripping Characteristic: Type EM



MCCB MX Size 2, 3 Pole, 50kA

Tripping Characteristic: Type EM



DESCRIPTION	AVAILABLE	ORDER NO.
125 to 250A with Fixed Thermomagnetic Release Unit		
Moulded Case Circuit Breaker Type A, 3 pole, 50kA, 125A		MX212231
Moulded Case Circuit Breaker Type A, 3 pole, 50kA, 160A		MX216231
Moulded Case Circuit Breaker Type A, 3 pole, 50kA, 200A		MX220231
Moulded Case Circuit Breaker Type A, 3 pole, 50kA, 250A		MX225231
32 to 250A with Electronic Motor Protection		
Moulded Case Circuit Breaker Type ENM, 3 pole, 50kA, 32A		MX232237
Moulded Case Circuit Breaker Type ENM, 3 pole, 50kA, 63A		MX263237
Moulded Case Circuit Breaker Type ENM, 3 pole, 50kA, 100A		MX210237
Moulded Case Circuit Breaker Type ENM, 3 pole, 50kA, 160A		MX216237
Moulded Case Circuit Breaker Type ENM, 3 pole, 50kA, 250A		MX225237
32 to 250A with Electronic Release Unit		
Moulded Case Circuit Breaker Type EN, 3 pole, 50kA, 32A		MX232232
Moulded Case Circuit Breaker Type EN, 3 pole, 50kA, 63A		MX263232
Moulded Case Circuit Breaker Type EN, 3 pole, 50kA, 100A		MX210232
Moulded Case Circuit Breaker Type EN, 3 pole, 50kA, 160A		MX216232
Moulded Case Circuit Breaker Type EN, 3 pole, 50kA, 250A		MX225232
32 to 250A with Digital Electronic Release Unit		
Moulded Case Circuit Breaker Type EM, 3 pole, 50kA, 32A		MX232233
Moulded Case Circuit Breaker Type EM, 3 pole, 50kA, 63A		MX263233
Moulded Case Circuit Breaker Type EM, 3 pole, 50kA, 100A		MX210233
Moulded Case Circuit Breaker Type EM, 3 pole, 50kA, 160A		MX216233
Moulded Case Circuit Breaker Type EM, 3 pole, 50kA, 250A		MX225233

MCCB MX Size 2, 4 Pole, 36kA



MX212441

Schrack-Info

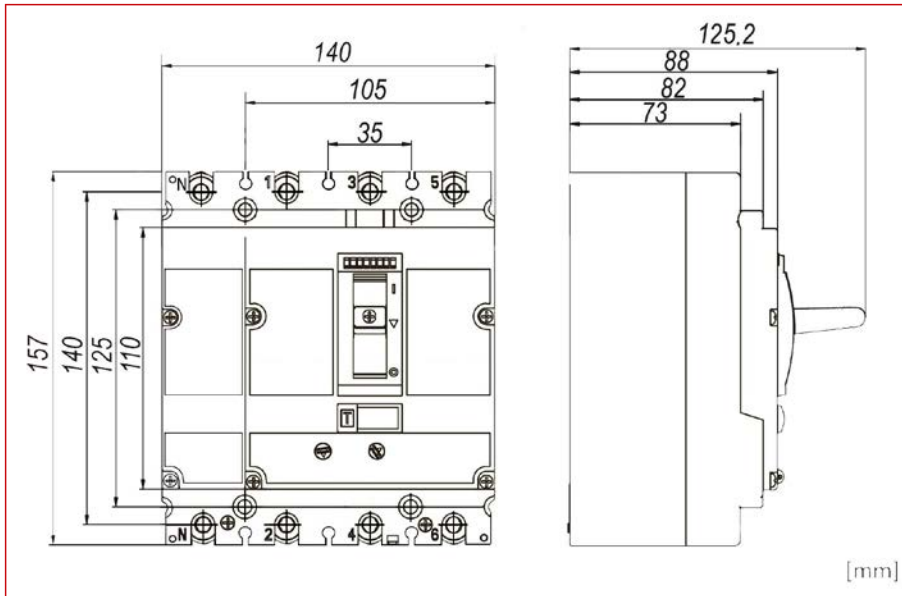
- For system, line protection and motor protection
- Adjustable overload release
 - with thermomagnetic release unit: $0.7 - 1 \times I_n$
 - with electronic release unit/motor protection: $0.4 - 1 \times I_n$
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 36kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 32A to 250A

Technical Data

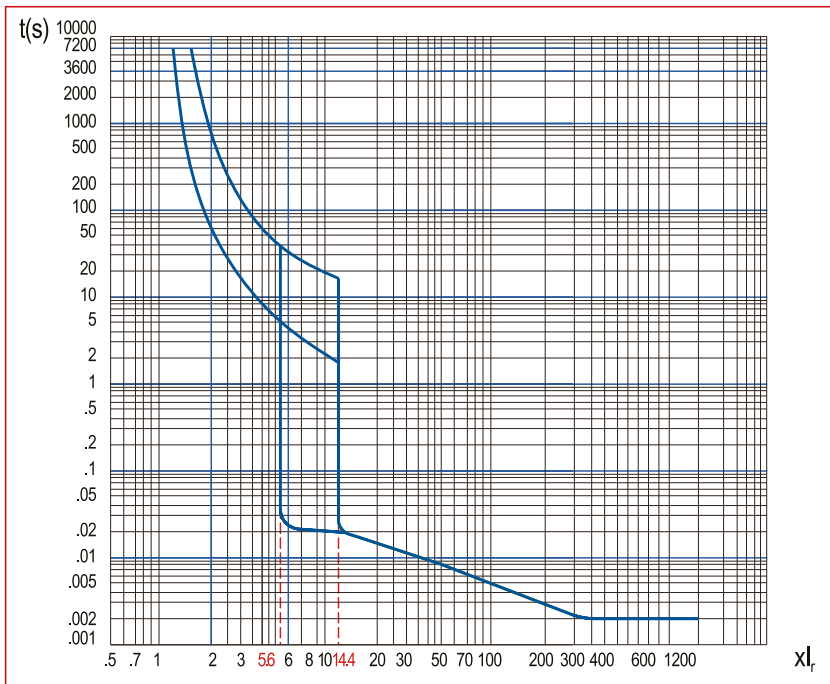
Size type		2
Poles		4
Rated operating current		125 - 250A (Type A); 32 - 250A (Type EN, EM, ENM)
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		36kA
Release		Thermomagnetic release - Type A Electronic release - Type EN Digitaler elektronischer Auslöser - Type EM Electronic release for motor protection - Type ENM
Rated insulation voltage U_i		1000V
Rated impulse withstand voltage U_{imp}		8kV
Rated ultimate short-circuit breaking capacity I_{cu}	AC 380/400/415V	36kA
	AC 440V	36kA
	AC 500V	25kA
	AC 660/690V	6kA
Rated service breaking capacity I_{cs}	AC 380/400/415V	36kA
	AC 440V	36kA
	AC 500V	25kA
	AC 660/690V	6kA
Rated short-time withstand current I_{cw} (1s)		1kA (32A, 63A) 2kA (100A, 160A) 3kA (250A)
Pollution degree		3
IP Rating		IP20
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability operation cycles		15000 operation cycles
Electrical endurance (operation cycles)	AC 415V, I_n	6000 operation cycles
	AC 690V, I_n	1500 operation cycles
Net weight		2.5kg (Type A)
		2.65kg (Type EN, EM, ENM)

MCCB MX Size 2, 4 Pole, 36kA

Dimensions

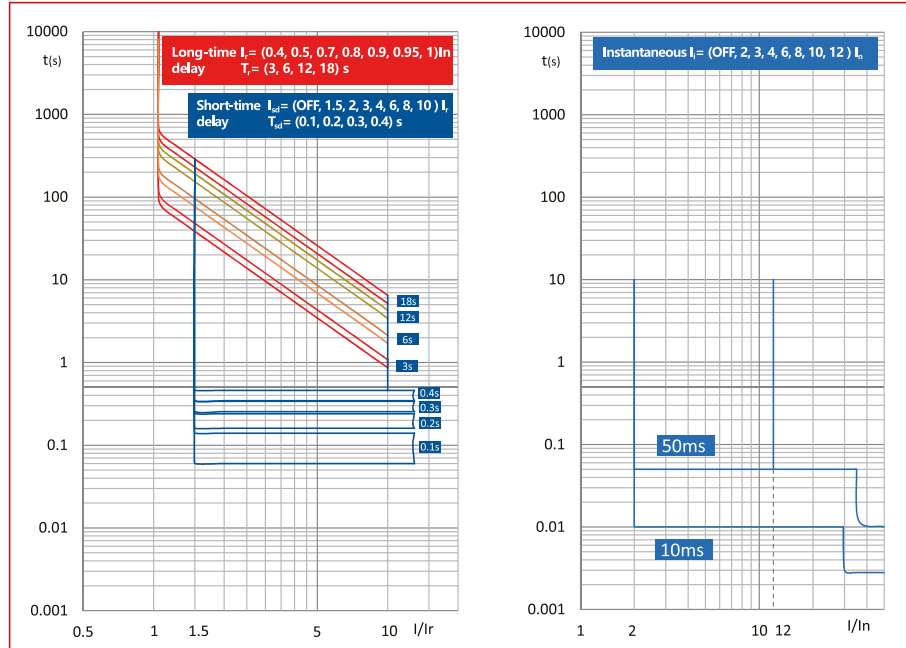


Tripping Characteristic: Type A

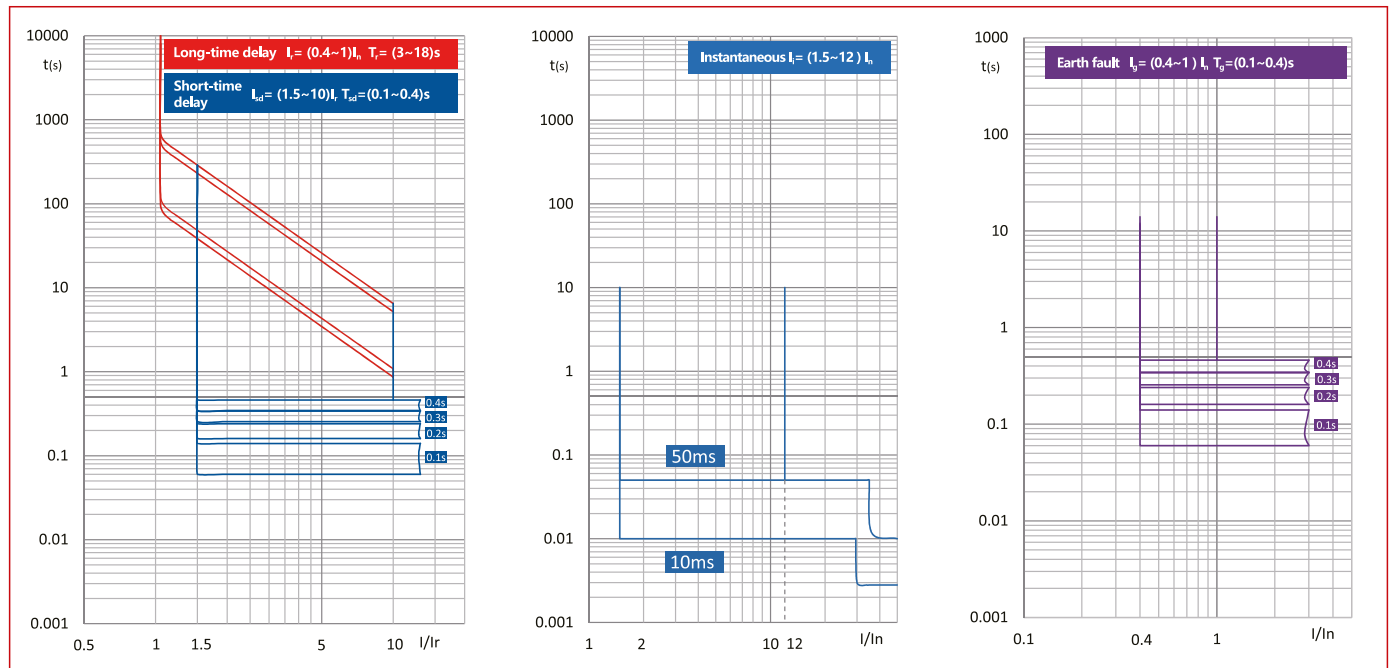


MCCB MX Size 2, 4 Pole, 36kA









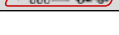


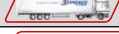


Tripping Characteristic: Type EN



Tripping Characteristic: Type EM



 MCCB MX Size 2, 4 Pole, 36kA

DESCRIPTION	AVAILABLE	ORDER NO.
125 to 250A with Thermomagnetic Release Unit		
Moulded Case Circuit Breaker Type A, 4 pole, 36kA, 125A		MX212441
Moulded Case Circuit Breaker Type A, 4 pole, 36kA, 160A		MX216441
Moulded Case Circuit Breaker Type A, 4 pole, 36kA, 200A		MX220441
Moulded Case Circuit Breaker Type A, 4 pole, 36kA, 250A		MX225441
32 to 250A with Electronic Release Unit		
Moulded Case Circuit Breaker Type EN, 4 pole, 36kA, 32A		MX232442
Moulded Case Circuit Breaker Type EN, 4 pole, 36kA, 63A		MX263442
Moulded Case Circuit Breaker Type EN, 4 pole, 36kA, 100A		MX210442
Moulded Case Circuit Breaker Type EN, 4 pole, 36kA, 160A		MX216442
Moulded Case Circuit Breaker Type EN, 4 pole, 36kA, 250A		MX225442
32 to 250A with Digital Electronic Release Unit		
Moulded Case Circuit Breaker Type EM, 4 pole, 36kA, 32A		MX232443
Moulded Case Circuit Breaker Type EM, 4 pole, 36kA, 63A		MX263443
Moulded Case Circuit Breaker Type EM, 4 pole, 36kA, 100A		MX210443
Moulded Case Circuit Breaker Type EM, 4 pole, 36kA, 160A		MX216443
Moulded Case Circuit Breaker Type EM, 4 pole, 36kA, 250A		MX225443



On stock, usually ready for delivery on the day of order

MCCB MX Size 2, 4 Pole, 50kA



MX212241

Schrack-Info

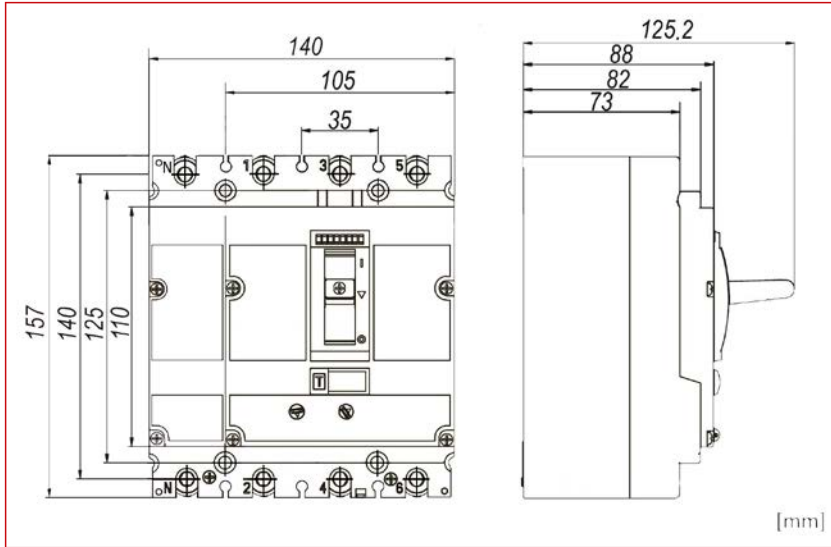
- For system, line protection and motor protection
- Adjustable overload release
 - with thermomagnetic release unit: $0.7 - 1 \times I_n$
 - with electronic release unit/motor protection: $0.4 - 1 \times I_n$
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 50kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 32A to 250A

Technical Data

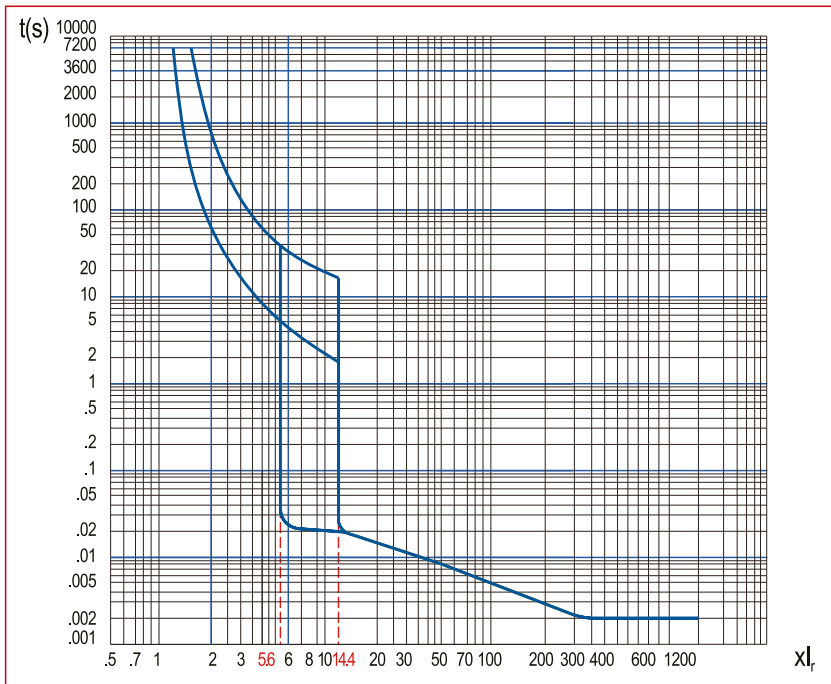
Size type		2
Poles		4
Rated operating current		125 - 250A (Type A); 32 - 250A (Type EN, EM, ENM)
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		50kA
Release		Thermomagnetic release - Type A Electronic release - Type EN Digital electronic release - Type EM Electronic release for motor protection - Type ENM
Rated insulation voltage U_i		1000V
Rated impulse withstand voltage U_{imp}		8kV
Rated ultimate short-circuit breaking capacity I_{cu}	AC 380/400/415V	50kA
	AC 440V	50kA
	AC 500V	40kA
	AC 660/690V	8kA
Rated service breaking capacity I_{cs}	AC 380/400/415V	50kA
	AC 440V	50kA
	AC 500V	40kA
	AC 660/690V	8kA
Rated short-time withstand current I_{cw} (1s)		1kA (32A, 63A)
		2kA (100A, 160A)
		3kA (250A)
Pollution degree		3
IP Rating		IP40
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability		15000 operation cycles
Electrical endurance	AC 415V, I_n	6000 operation cycles
	AC 690V, I_n	1500 operation cycles
Net weight		2.5kg (Type A)
		2.65kg (Type EN, EM, ENM)

MCCB MX Size 2, 4 Pole, 50kA

Dimensions

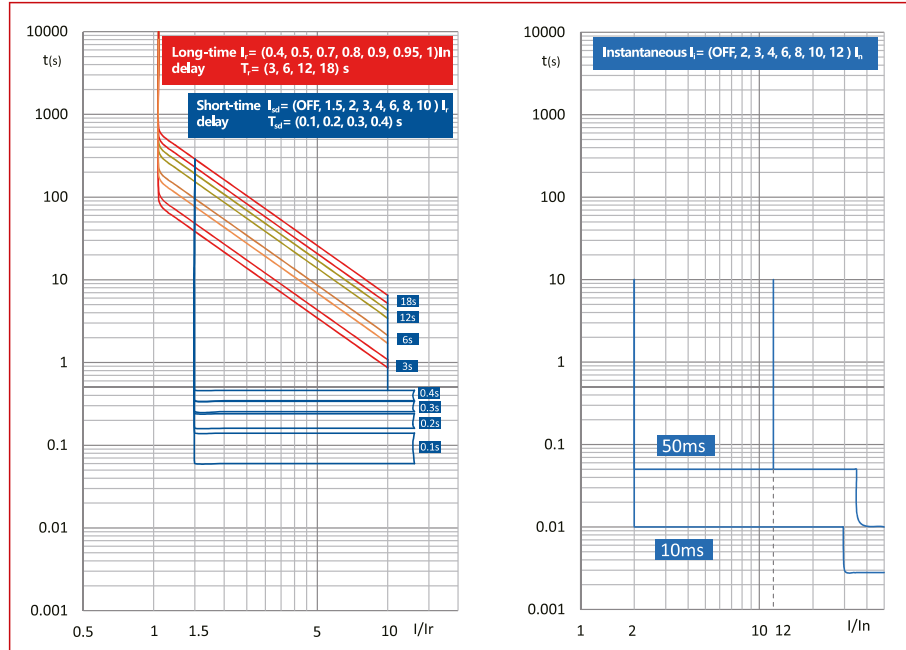


Tripping Characteristic: Type A

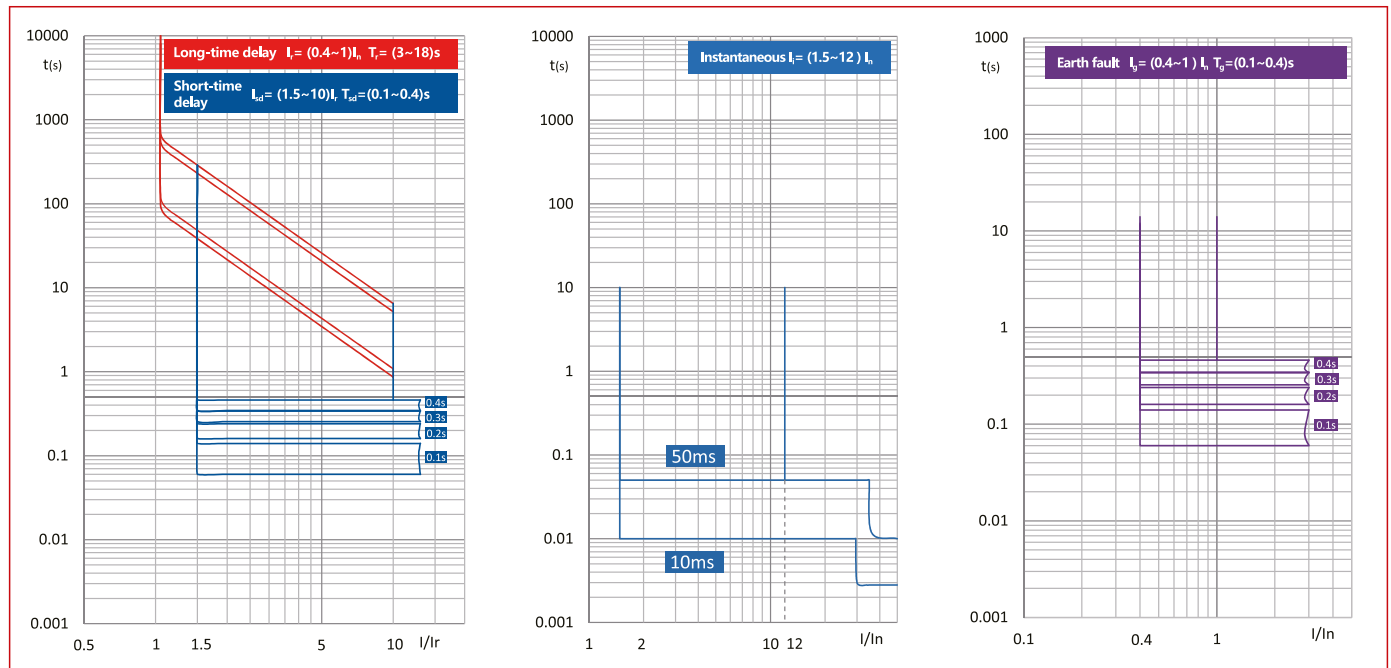


MCCB MX Size 2, 4 Pole, 50kA







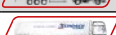







Tripping Characteristic: Type EN



Tripping Characteristic: Type EM



MCCB MX Size 2, 4 Pole, 50kA

DESCRIPTION	AVAILABLE	ORDER NO.
125 to 250A with Fixed Thermomagnetic Release Unit		
Moulded Case Circuit Breaker Type A, 4 pole, 50kA, 125A		MX212241
Moulded Case Circuit Breaker Type A, 4 pole, 50kA, 160A		MX216241
Moulded Case Circuit Breaker Type A, 4 pole, 50kA, 200A		MX220241
Moulded Case Circuit Breaker Type A, 4 pole, 50kA, 250A		MX225241
32 to 250A with Electronic Release Unit		
Moulded Case Circuit Breaker Type EN, 4 pole, 50kA, 32A		MX232242
Moulded Case Circuit Breaker Type EN, 4 pole, 50kA, 63A		MX263242
Moulded Case Circuit Breaker Type EN, 4 pole, 50kA, 100A		MX210242
Moulded Case Circuit Breaker Type EN, 4 pole, 50kA, 160A		MX216242
Moulded Case Circuit Breaker Type EN, 4 pole, 50kA, 250A		MX225242
32 to 250A with Digital Electronic Release Unit		
Moulded Case Circuit Breaker Type EM, 4 pole, 50kA, 32A		MX232243
Moulded Case Circuit Breaker Type EM, 4 pole, 50kA, 63A		MX263243
Moulded Case Circuit Breaker Type EM, 4 pole, 50kA, 100A		MX210243
Moulded Case Circuit Breaker Type EM, 4 pole, 50kA, 160A		MX216243
Moulded Case Circuit Breaker Type EM, 4 pole, 50kA, 250A		MX225243



On stock, usually ready for delivery on the day of order

Combination MCCB Size 2 and RCD



MX225232F1

Schrack-Info

MX210232F1: Combination MX210232 MCCB (Type EN, 3P, 50kA, 100A) and RCD

MX210242F1: Combination MX210242 MCCB (Type EN, 4P, 50kA, 100A) and RCD

MX225232F1: Combination MX225232 MCCB (Type EN, 3P, 50kA, 250A) and RCD

MX225242F1: Combination MX225242 MCCB (Type EN, 4P, 50kA, 250A) and RCD

Residual Current Device:

- Release Type A
- Four-step adjustable rated residual operating current $I_{\Delta n} = 50\text{mA}-200\text{mA}-0.5\text{A}-2\text{A}$
- Adjustable delay time 0-60-200-500ms

Technical Data: RCD

Rated operating current I_n (40°C)		250A
Size		2
Poles		3P, 4P
Rated insulation voltage U_i		1000V
Rated impulse withstand voltage U_{imp}		8kV
Rated operational voltage U_e (50/60Hz)		380/440/415VAC, 440VAC
Rated residual operating current $I_{\Delta n}$		0.05-0.2-0.5-1A
Rated residual non-operating current $I_{\Delta no}$		$0,5 I_{\Delta n}$ A
Limit non-actuating time		$\Delta t: 0-60-200-500\text{ms}^*$
Breaking time		100-300-500-1000ms
Rated residual making and breaking capacity $I_{\Delta m}$		$0.25 I_{cu}$ kA
Standard		IEC/EN 60947-2
Ambient temperature		-25°C ~ 70°C
Arcing distance		0
Dimension with circuitbreaker	Width (3P/4P)	105mm/140mm
	Height	232mm
	Depth	88mm
Weight	3P	0.84kg
	4P	1.08kg

Note: *When the residual operating current is set to 0.03A, the limit non-actuating time must be set to 0.

Derating Factor for Circuit Breaker with RCD

Model	Derating factor
MX2 100A	1
250A	0.95

DESCRIPTION	AVAILABLE	ORDER NO.
Combination MCCB Type EN, 3P, 50kA, 100A and RCD up to 1A		MX210232F1
Combination MCCB Type EN, 4P, 50kA, 100A and RCD up to 1A		MX210242F1
Combination MCCB Type EN, 3P, 50kA, 250A and RCD up to 1A		MX225232F1
Combination MCCB Type EN, 4P, 50kA, 250A and RCD up to 1A		MX225242F1

MCCB MX Size 2, Selectivity table

Downstream	Upstream I _n (A)	MX2-A MCCB						MX2-EN, EM, ENM MCCB			
		125	160	180	200	225	250	32	63	100	160
AM MCB	≤10	T	T	T	T	T	T	0.4kA	0.5kA	1kA	T
	16	T	T	T	T	T	T	0.4kA	0.5kA	1kA	T
	20	T	T	T	T	T	T		0.5kA	1kA	T
	25	T	T	T	T	T	T		0.5kA	1kA	T
	32	2kA	5kA	T	T	T	T		0.5kA	1kA	T
	40	2kA	5kA	T	T	T	T			1kA	T
	50	2kA	5kA	T	T	T	T			1kA	T
AK RCBO 1+N	63	2kA	5kA	T	T	T	T			1kA	T
	≤10	T	T	T	T	T	T	0.42kA	0.54kA	1.1kA	T
	13	T	T	T	T	T	T	0.42kA	0.54kA	1.1kA	T
	16	T	T	T	T	T	T	0.42kA	0.54kA	1.1kA	T
	20	T	T	T	T	T	T		0.54kA	1.1kA	T
	25	T	T	T	T	T	T		0.54kA	1.1kA	T
	32	2.3kA	5.2kA	T	T	T	T		0.54kA	1.1kA	T
	40	2.3kA	5.2kA	T	T	T	T			1.1kA	T
AK RCBO 3+N	50	2.3kA	5.2kA	T	T	T	T			1.1kA	T
	63	2.3kA	5.2kA	T	T	T	T			1.1kA	T
	≤10	T	T	T	T	T	T	0.42kA	0.55kA	1.3kA	T
	16	T	T	T	T	T	T	0.42kA	0.55kA	1.3kA	T
	20	T	T	T	T	T	T	0.42kA	0.55kA	1.3kA	T
AMxxx5xx MCB 1+N/1TE	25	T	T	T	T	T	T		0.55kA	1.3kA	T
	32	2.3kA	5.2kA	T	T	T	T		0.55kA	1.3kA	T
	40	2.3kA	5.2kA	T	T	T	T			1.3kA	T
	≤10	T	T	T	T	T	T	0.42kA	0.55kA	1.1kA	T
	16	T	T	T	T	T	T	0.42kA	0.55kA	1.1kA	T
MX1 MCCB	20	T	T	T	T	T	T		0.55kA	1.1kA	T
	25	T	T	T	T	T	T		0.55kA	1.1kA	T
	32	2.3kA	5.2kA	T	T	T	T		0.55kA	1.1kA	T
	40	2.3kA	5.2kA	T	T	T	T			1.1kA	T
	16	1kA	2.5kA	2.5kA	2.5kA	2.5kA	2.8kA		0.5kA	1kA	2.5kA
	20	1kA	2.5kA	2.5kA	2.5kA	2.5kA	2.8kA		0.5kA	1kA	2.5kA
	25	1kA	2.5kA	2.5kA	2.5kA	2.5kA	2.8kA		0.5kA	1kA	2.5kA
	32	1kA	2.5kA	2.5kA	2.5kA	2.5kA	2.8kA			1kA	2.5kA
	40	1kA	2kA	2kA	2.5kA	2.5kA	2.8kA			1kA	2kA
50	1kA	2kA	2kA	2.5kA	2.5kA	2.8kA			1kA	2kA	
63	1kA	2kA	2kA	2.5kA	2.5kA	2.8kA				2kA	
80		2kA	2kA	2.5kA	2.5kA	2.8kA				2kA	
100				2.5kA	2.5kA	2.8kA					
125					2.5kA	2.8kA					
MX2- EN, EM, ENM MCCB	32									1kA	2kA
	63										2kA

Notes:

- 1) No content, indicating no selectivity.
- 2) 1 kA, indicating local selectivity, the number indicates the maximum fault current to achieve selectivity. For example, selectivity can be achieved below 1 kA, and above 1 kA upper and lower level circuit breakers may act simultaneously.
- 3) T, indicates that the full selectivity is satisfied within the breaking capacity of the lower level circuit breaker.

MCCB MX Size 2 - Accessories



MX290015



MX290125



MX290172



MX290000



MX296732



MX299832



MX290199



MX299471

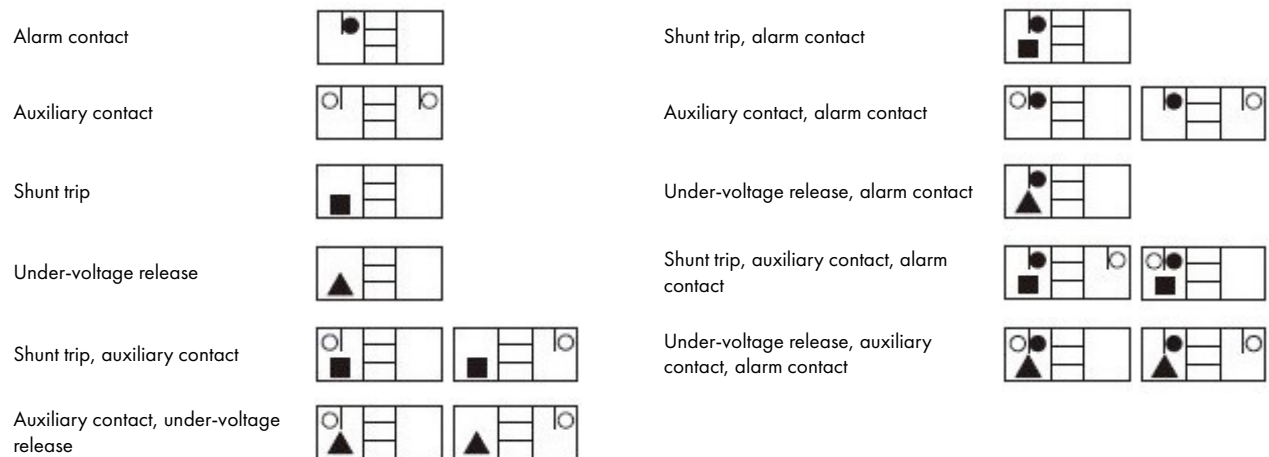
Schrack-Info

Wide range of accessories

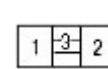
- Auxiliary contacts
- Rotary handles, door coupling handles
- Under voltage release units, shunt-trips
- Residual current release units
- Connection accessories
- General accessories

MCCB MX Size 2 - Accessories

Installation Diagram for Accessories



-) MX2 cannot be equipped with undervoltage release and shunt release at the same time;
 -) MX2 can be equipped with a maximum of 2 auxiliary contacts



- 1) Left
- 2) Right
- 3) Handle
- Shunt trip
- Under-voltage release
- Auxiliary contact
- Alarm contact

Derating Factor Table for Circuit Breaker with Residual Current Protection Module

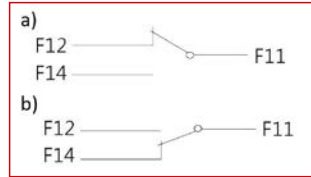
Model		Derating factor
MX2 MCCB Type A +	125A ~ 180A	1
MX2 RCD	200A ~ 250A	0.9
MX2 MCCB - Type EN, EM, ENM +	32A ~ 160A	1
MX2 RCD	250A	0.95

Derating Factor Table for Circuit Breakers with Plug-In and Drive-In socket

Model		Derating factor
MX2 MCCB - Type A	125A ~ 180A	1
	200A ~ 250A	0.95
MX2 MCCB - Type EN, EM, ENM	32A ~ 160A	1
	250A	0.95

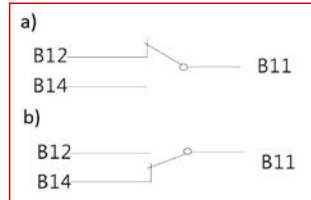
MCCB MX Size 2 - Accessories

Auxiliary Contact: Indication of Circuit Breaker Status



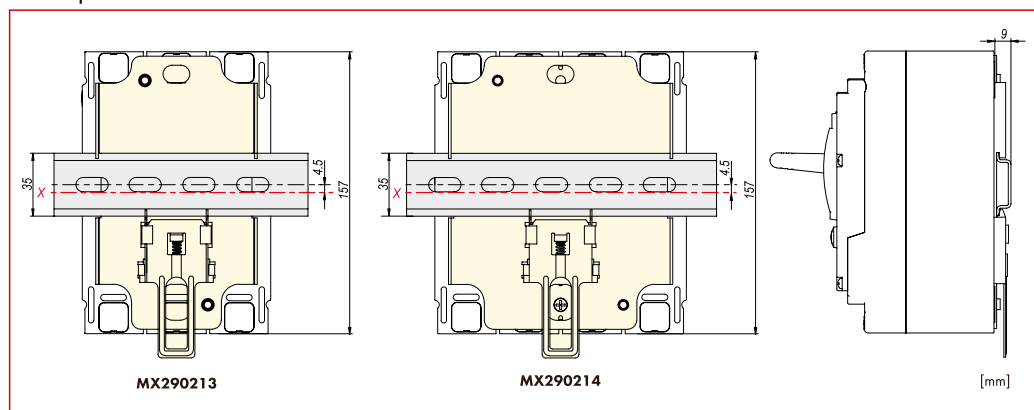
- a) Circuit breaker is at breaking status
- b) Circuit breaker is at making status

Alarm Contact: Indication of Circuit Breaker Status



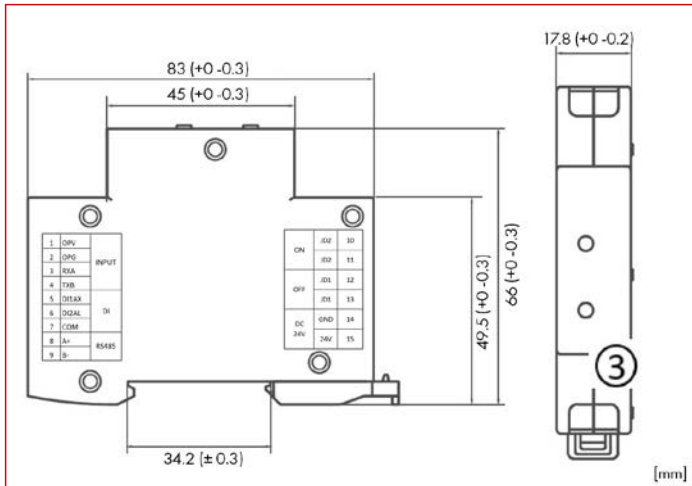
- a) Circuit breaker is at breaking or making status
- b) Circuit breaker is at free tripping status

Clip Plate for MX2 3- and 4 Pole



MCCB MX Size 2 - Accessories

Communication Module



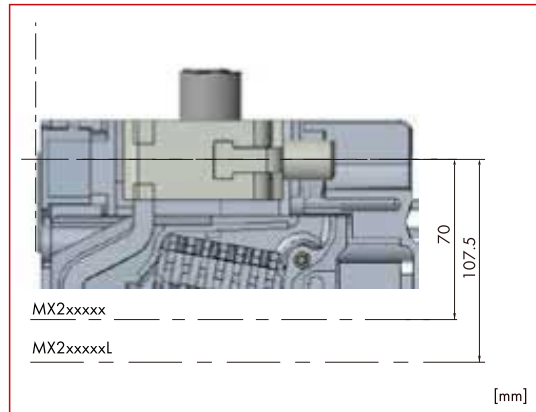
The communication module is an interface module for communication between the electronic trigger of the circuit breakers and the bus system and takes over the communication and output of the remote control via relay contacts.

- Rated voltage: AC230V or DC24V (fault range $\pm 15\%$)
- Communication type: RS485 (Modbus RTU protocol)
- Contact capacity: AC250V/3A; DC30V / 3A
- Transmission medium: shielded twisted cable
- Transmission distance: 1.2 km (with shielded twisted pair of category A)
- Display of operating status: LED display
- Number of stations: 1 station

INPUT	1	OPV	15V output, connection to controller 15V input
INPUT	2	OPG	GND, connect to controller GND
INPUT	3	RXA	RS485 Bus A, connection to controller RS485A
INPUT	4	TXB	RS485 Bus B, connection to controller RS485B
DI	5	DI1 (AX)	Auxiliary signal input, connection to AX PIN 4 auxiliary module
DI	6	DI2 (AL)	Alarm signal input, connection to alarm module AL PIN 4
DI	7	WITH	Common terminal, connection to AX, AL, PIN 1
RS485	8	A+	RS485 Bus A, connection to external RS485 Bus A
RS485	9	B-	RS485 Bus B, connection to external RS485 Bus B
ON	10	JD2	Relay output, connection with motor drive for switching on
ON	11	JD2	Relay output, connection with motor drive for switching on
OFF	12	JD1	Relay output, connection with motor drive for switching off
OFF	13	JD1	Relay output, connection with motor drive for switching off
DC24V	14	GND	Supply voltage GND (DC24V model)
DC24V	15	24V	Supply voltage 24V (DC24V model)
AC230	14	N	Supply voltage 230V (AC230V model)
AC230	15	L	Supply voltage 230V (AC230V model)

MCCB MX Size 2 - Accessories

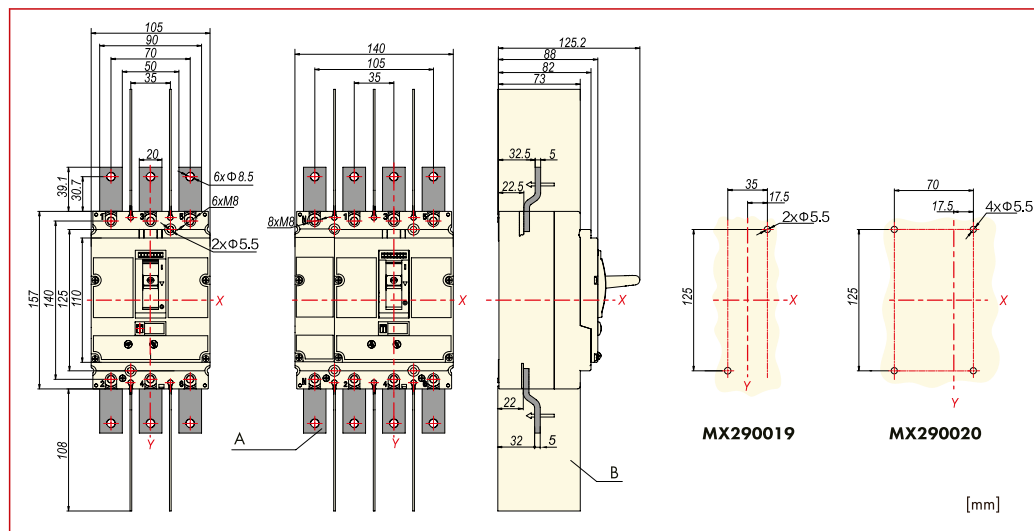
Box Terminal for MX 10-120mm²



Suitable for aluminum and Cu conductors.

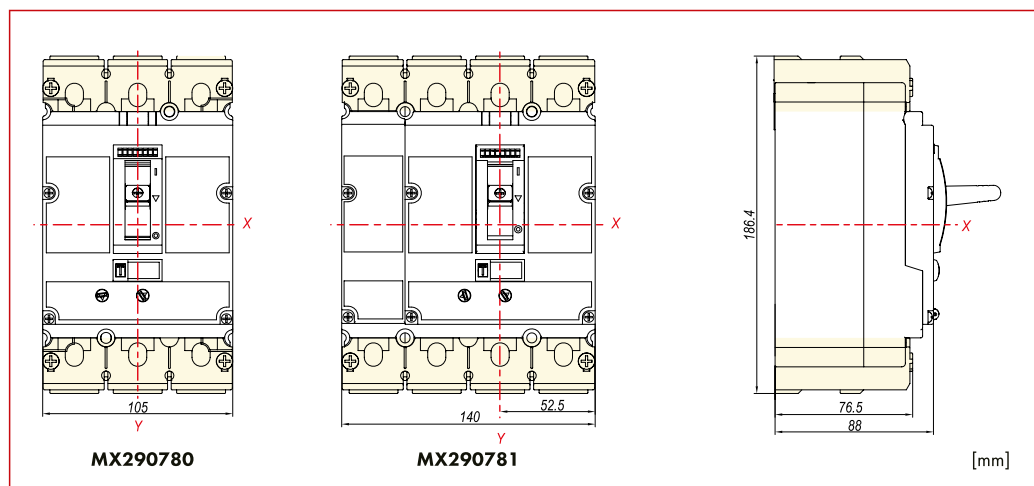
It enables the direct connection of bare conductors.

Connection Extension for MX2 3- Und 4 Pole



Enables a more flexible connection. Installation allows the distance between adjacent poles at the inputs and outputs of the circuit breaker to be increased.

Terminal Cover Short for MX2 3- Und 4 Pole

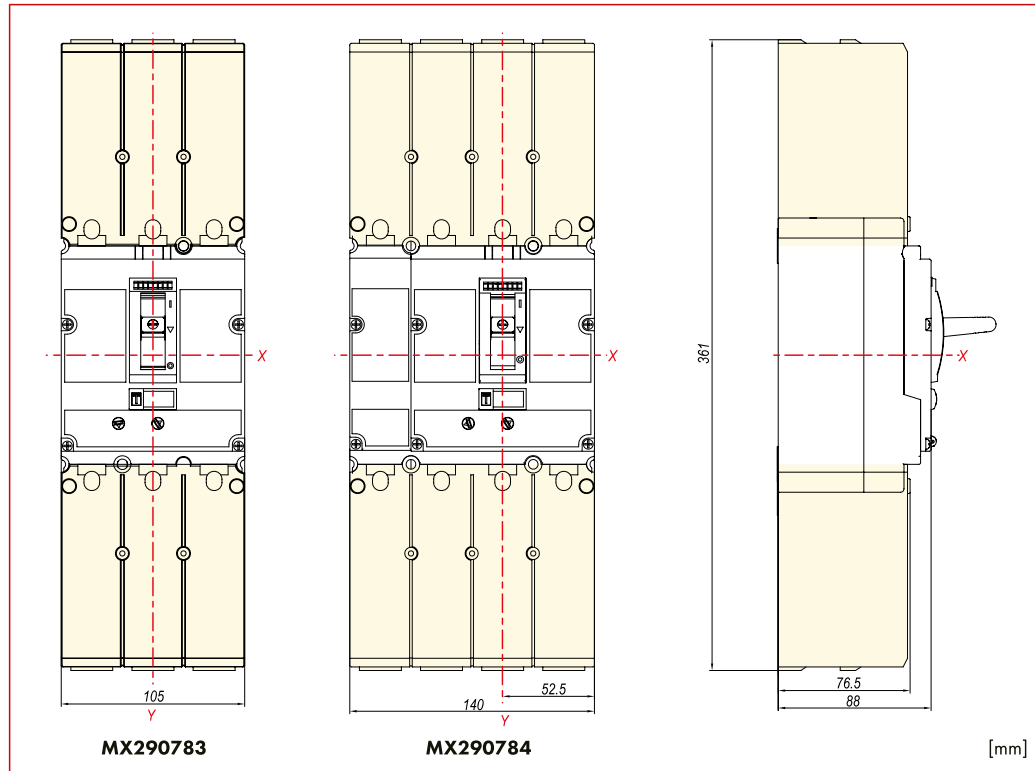


Protection class: IP40

Serves to protect the contacts against contact and also serves as phase separation. If the voltage exceeds 500V, the terminal cover must be used

▀ MCCB MX Size 2 - Accessories

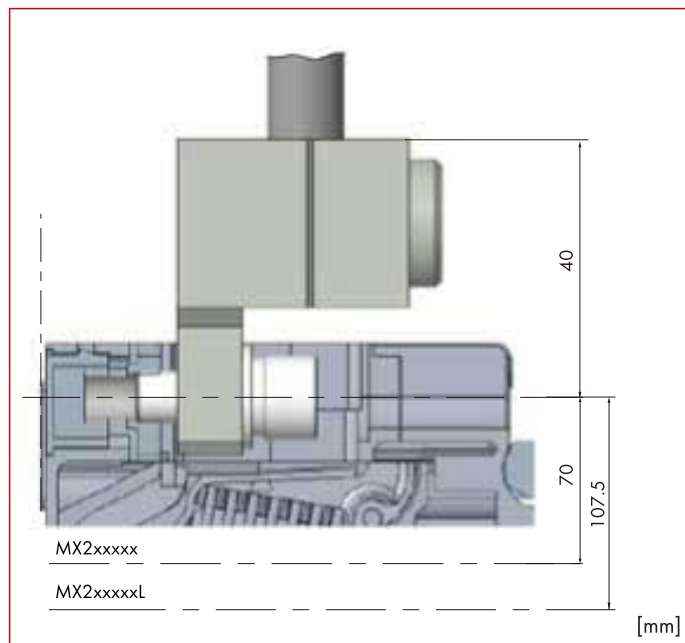
▀ Terminal Cover Long for MX2 3- and 4 Pole



Protection class: IP40

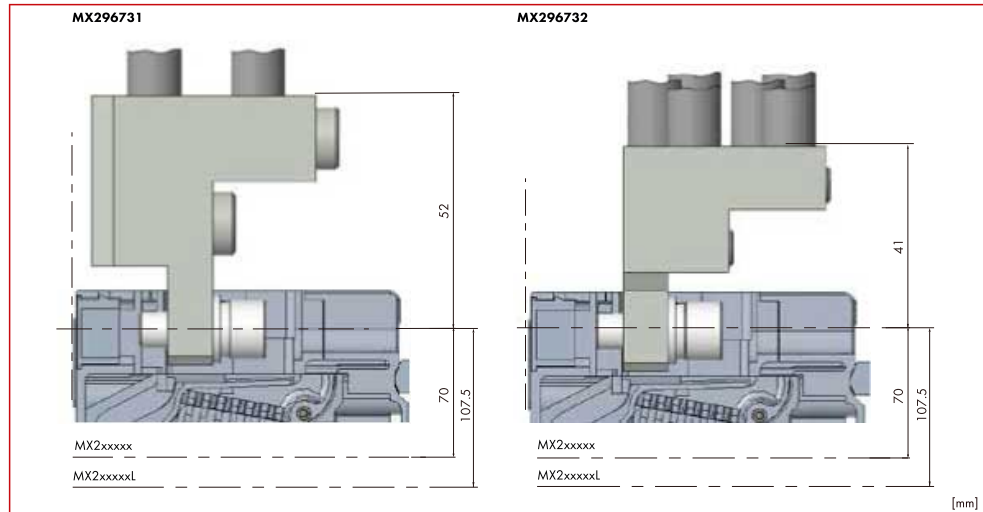
Serves to protect the contacts against contact and also serves as phase separation. If the voltage exceeds 500V, the terminal cover must be used

▀ Tunnel Terminal 1x35-240mm² for MX2



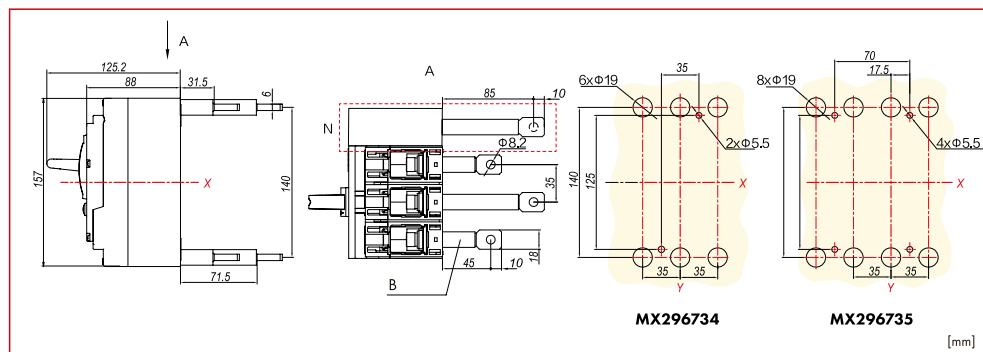
MCCB MX Size 2 - Accessories

Tunnel Terminal 2x35-120mm²/6X35mm² for MX2



Suitable for aluminum and Cu conductors.
Allows the direct connection of bare conductors.

Rear Connection for MX2 3- and 4 Pole

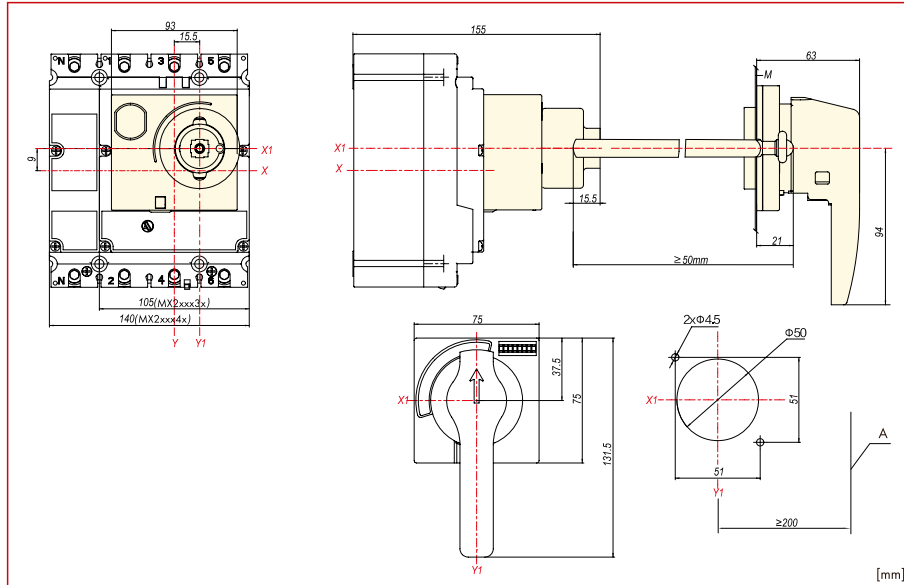


A	Top view
B	Connection extension
N	Neutral conductor
X	Horizontal centre
Y	Vertical centre

Allows the circuit breaker to be connected behind the mounting level.

MCCB MX Size 2 - Accessories

Door Coupling Rotary Handle Lockable for MX2



X	Horizontal centre switch
X1	Horizontal centre rotary handle
Y	Vertical centre switch
Y1	Vertical centre rotary handle

Protection class: IP50

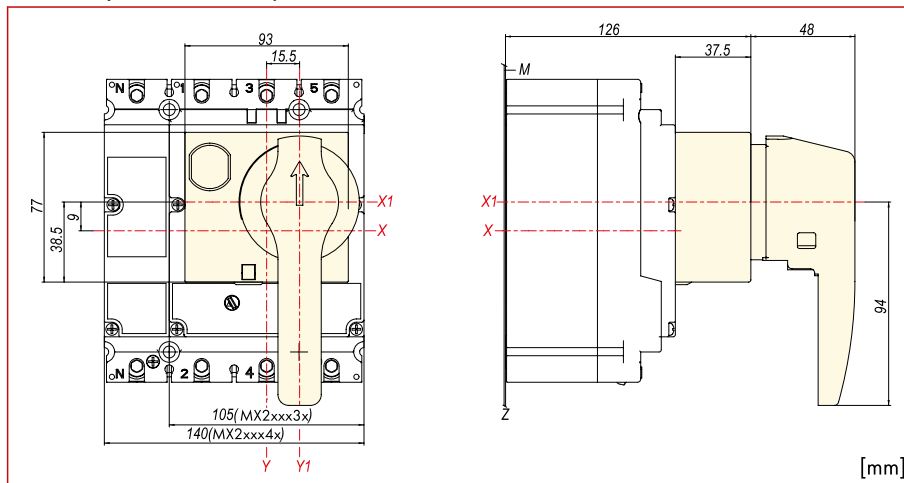
Switching position 0, I and triggered, in 3 positions.

The rotary handle can be locked with a padlock in the OFF position.

Attention: two versions for thermomagnetic or electronic release.

Enclosure door locked in "I" position

Rotary Handle Complete, Lockable for MX2



X	Horizontal centre switch
X1	Horizontal centre rotary handle
Y	Vertical centre switch
Y1	Vertical centre rotary handle

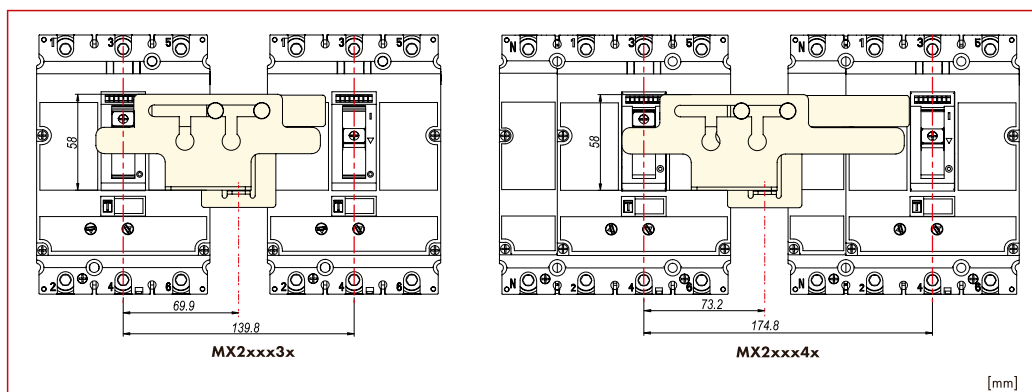
Protection class: IP40

Switching position 0, I and triggered, in 3 positions.

The rotary handle can be locked with a padlock in the OFF position.

Attention: two versions for thermomagnetic or electronic release.

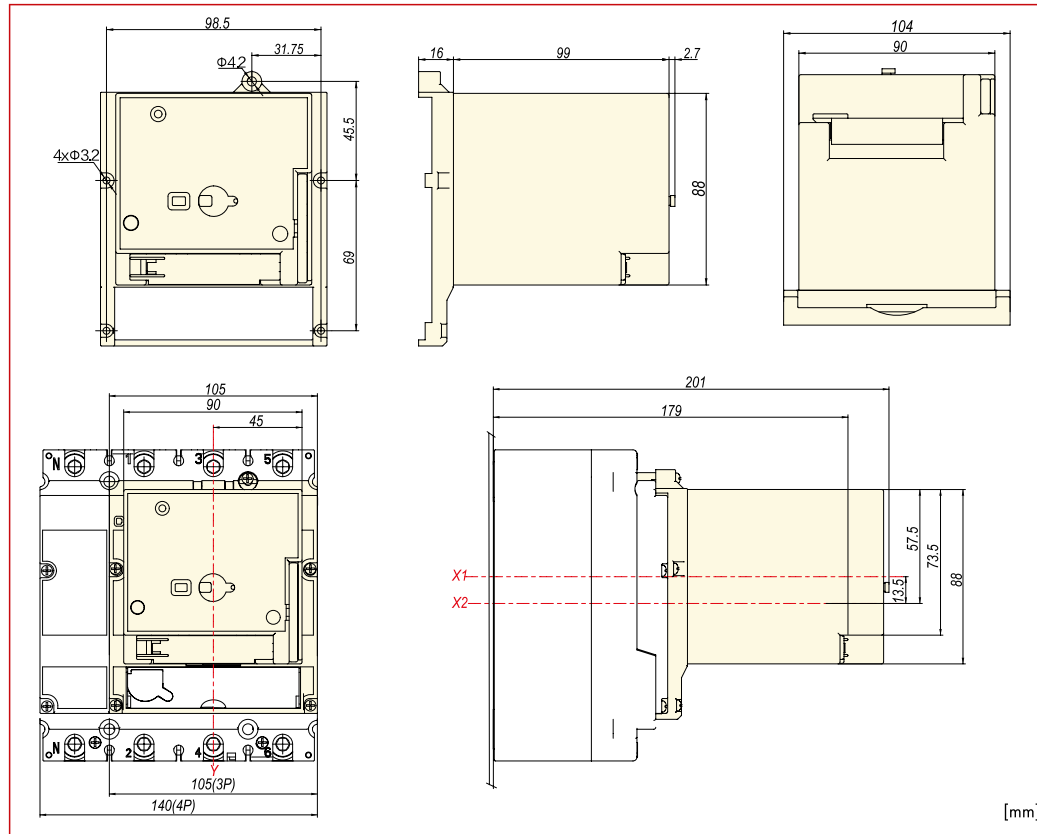
Mechanical Interlock for MX2 3- and 4 Pole



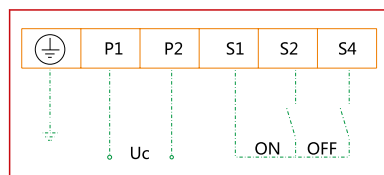
When using this locking device with two circuit breakers of the same size, only one of them can be operated. For manual locking of two circuit breakers.

MCCB MX Size 2 - Accessories

Remote Operator for MX2



X1	Horizontal centre remote operator
X2	Horizontal centre switch
Y	Vertical centre

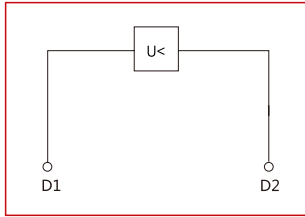


It is suitable for switching on, off and switching on circuit breakers over long distances, as well as for automation applications.

- Protection class: IP40
- Display 0, I and triggered in 3 positions
- Switching between Automatic and Manual Operation
- Automatic switching via electrical control inputs
- Manual switching via key.
- When control voltage is between 85% and 110%, the circuit breaker can be reliably switched on and off.

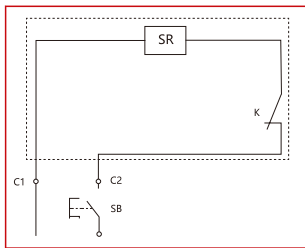
MCCB MX Size 2 - Accessories

Under Voltage Release



Immediate triggering of circuit breakers or switch disconnectors when the supply voltage drops below 35% - 70%.
 Can be used for EMERGENCY STOP devices.
 Installed in the circuit breaker.
 If the undervoltage trigger is de-energized, contacting the switch main contacts during switch-on tests is safely prevented.

Shunt Trip









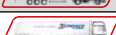











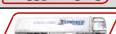


Immediate triggering of circuit breakers or switch disconnectors at voltage pulse or application of continuous voltage in the range of 70% to 110% of the rated control voltage. If the working current trigger is live, contacting the switch main contacts during switch-on tests is reliably prevented.

DESCRIPTION	AVAILABLE	ORDER NO.
General Accessories		
Toggle Lever Locking Device for MX2		MX290199
Clip Plate 25mm DIN-S for MX2 3 pole		MX290213
Clip Plate 25mm DIN-S for MX2 4 pole		MX290214
Communication module Modbus-RTU 24VDC 1.5m		MX290000
Communication module Modbus-RTU 230VAC 1.5m		MX290001
Battery Box for MX Molded Case Circuit Breaker Typ EN, ENM, EM		MXBAT001
Measuring Unit with Modbus 3-pole for MX2, IT-Net		MX290031
Measuring Unit with Modbus 3-pole for MX2, TT/TN-Net		MX290032
Connecting Technic, Accessories		
Box Terminal for MX2 10-120mm ² , 1 piece		MX290015
Connection extension 3 pole for MX2, 6 pieces		MX290019
Connection extension 4 pole for MX2, 8 pieces		MX290020
Terminal Cover short 3 pole for MX2		MX290780
Terminal Cover short 4 pole for MX2		MX290781
Terminal Cover long 3 pole for MX2		MX290783
Terminal Cover long 4 pole for MX2		MX290784
Tunnel Terminal 1x35-240mm ² for MX2, 1 piece		MX296730
Tunnel Terminal 2x35-120mm ² for MX2, 1 piece		MX296731
Tunnel Terminal 6x10-35mm ² for MX2, 1 piece		MX296732
Rear Connection, 3 pole for MX2		MX296734
Rear Connection, 4 pole for MX2		MX296735
Socket for MX2 3 pole		MX296871
Socket for MX2 4 pole		MX296872
Safety release for socket MX2 for thermal release		MX296873
Safety release for socket MX2 for electronic release		MX296874
Phase separator plates MX2		MX296870
Rotary Handles, Door Coupling Handles, Accessories		
Rotary handle complete, lockable for MX2, thermal release		MX290125
Rotary handle complete, lockable for MX2, electronic release		MX290126



On stock, usually ready for delivery on the day of order

MCCB MX Size 2 - Accessories

DESCRIPTION	AVAILABLE	ORDER NO.
Rotary Handles, Door Coupling Handles, Accessories		
Door Coupling Rotary Handle, lockable, for MX2 for thermal release		MX290172
Door Coupling Rotary Handle, lockable, for MX2 for electronic release		MX290173
Mechanical Interlock for MX2 3 pole		MX291581
Mechanical Interlock for MX2 4 pole		MX291582
Under Voltage Release Units, Shunt-trips and Accessories		
Under Voltage Release 110VAC for MX2, MX3		MX299462
Under Voltage Release 220-240VAC for MX2, MX3		MX299471
Under Voltage Release 380-415VAC for MX2, MX3		MX299473
Under Voltage Release 24VDC for MX2, MX3		MX299481
Under Voltage Release 220VDC for MX2, MX3		MX299489
Shunt trip 110VAC for MX2, MX3		MX299567
Shunt trip 220-240VAC for MX2, MX3		MX290154
Shunt trip 380-415VAC for MX2, MX3		MX291607
Shunt trip 24VDC for MX2, MX3		MX299736
Shunt trip 220VDC for MX2, MX3		MX299742
Remote Operator 24VDC for MX2		MX299837
Remote Operator 110VAC/110-120VDC for MX2		MX299838
Remote Operator 220-240VAC/220VDC for MX2		MX299832
Remote Operator 380-415VAC for MX2		MX299833
Measuring Unit with Modbus 4-pole for MX2		MX290040
Auxiliary Contacts		
Auxiliary contact 1 CO		MX199411
Alarm contact 1 CO		MX199511

■ MCCB MX Size 3, 3 Pole, 36kA



MX340431

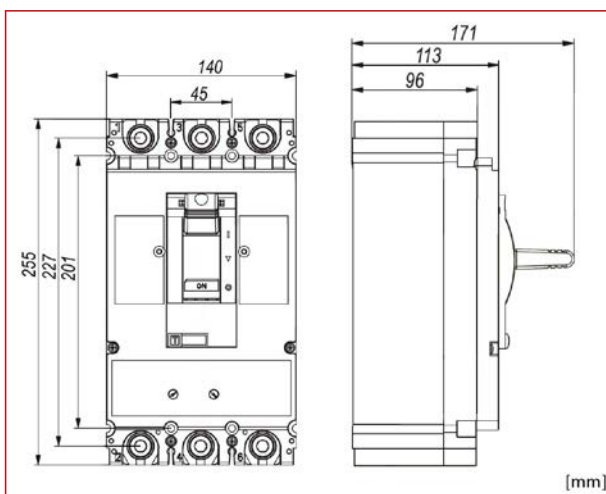
■ Schrack-Info

- For system and line protection
- Adjustable overload release 0.7 - 1 x I_n
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 36kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 400A to 500A

■ Technical Data

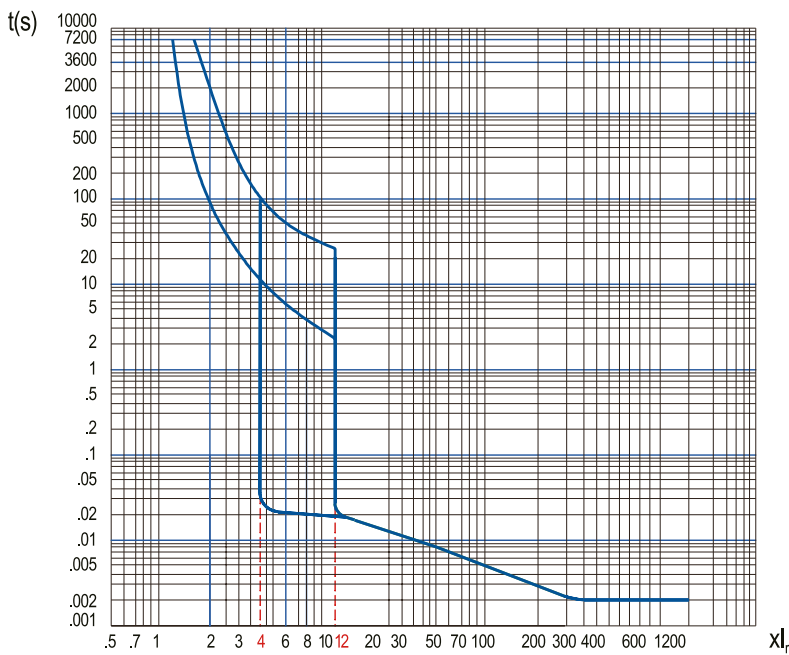
Size type		3
Poles		3
Rated operating current		400-500A
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		36kA
Release		Thermomagnetic release - Type A
Rated insulation voltage U _i		1000V
Rated impulse withstand voltage U _{imp}		12kV
Rated ultimate short-circuit breaking capacity I _{cu}	AC 380/400/415V	36kA
	AC 440V	36kA
	AC 500V	25kA
	AC 660/690V	10kA
Rated service breaking capacity I _{cs}	AC 380/400/415V	36kA
	AC 440V	36kA
	AC 500V	25kA
	AC 660/690V	10kA
Rated short-time withstand current I _{cw} (1s)		-
Pollution degree		3
IP Rating		IP20
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability		15000 operation cycles
Electrical endurance	AC 415V, I _n	4000 operation cycles
	AC 690V, I _n	1500 operation cycles
Net weight		5.5kg



■ Dimensions



■ MCCB MX Size 3, 3 Pole, 36kA

■ Tripping Characteristic: Type A



DESCRIPTION	AVAILABLE	ORDER NO.
400 to 500A with Thermomagnetic Release Unit		
Moulded Case Circuit Breaker Type A, 3 pole, 36kA, 400A		MX340431
Moulded Case Circuit Breaker Type A, 3 pole, 36kA, 500A		MX350431

MCCB MX Size 3, 3 Pole, 50kA



MX340231

Schrack-Info

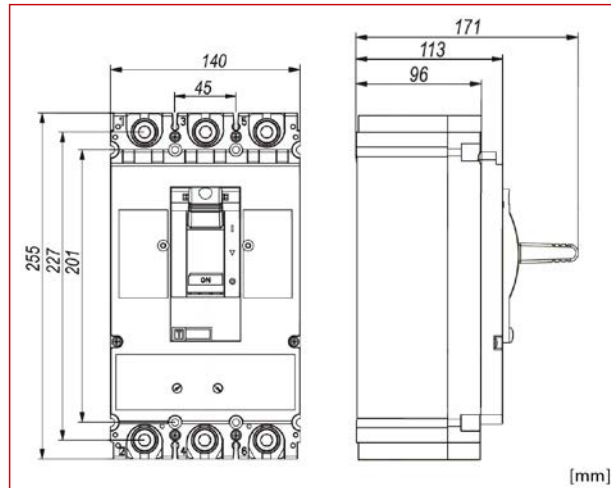
- For system, line protection and motor protection
- Adjustable overload release
 - with thermomagnetic release unit: $0.7 - 1 \times I_n$
 - with electronic release unit/motor protection: $0.4 - 1 \times I_n$
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 50kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 400A to 630A

Technical Data

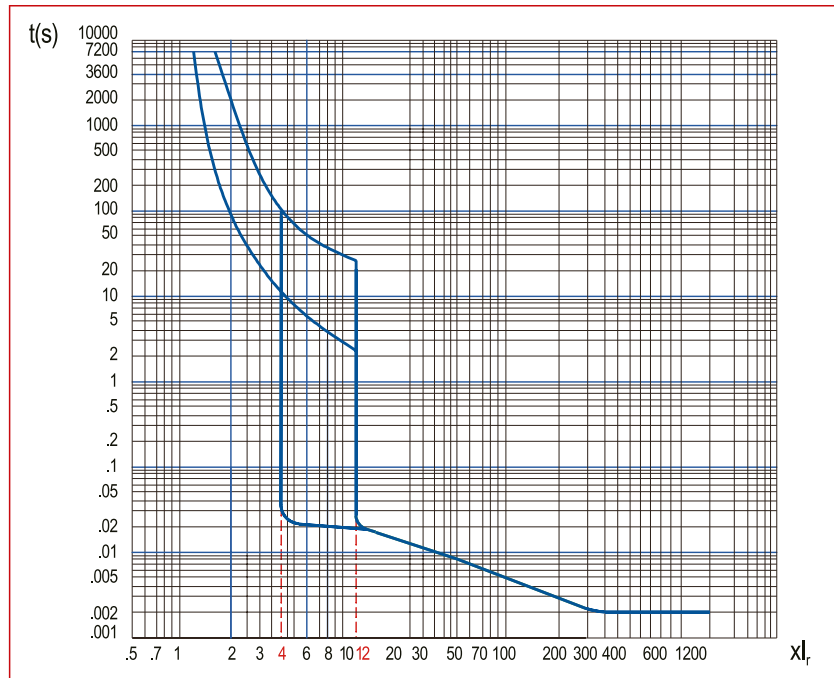
Size type		3
Poles		3
Rated operating current		400-500A (Type A), 400-630A (Type EN, EM, ENM)
Rated operational voltage		$\leq 690VAC$
Short circuit switching capacity (400V)		50kA
Release		Thermomagnetic release - Type A Electronic release - Type EN Digital electronic release - Type EM Electronic release for motor protection - Type ENM
Rated insulation voltage U_i		1000V
Rated impulse withstand voltage U_{imp}		12kV
Rated ultimate short-circuit breaking capacity I_{cu}	AC 380/400/415V	50kA
	AC 440V	50kA
	AC 500V	40kA
	AC 660/690V	12kA
Rated service breaking capacity I_{cs}	AC 380/400/415V	50kA
	AC 440V	50kA
	AC 500V	40kA
	AC 660/690V	12kA
Rated short-time withstand current I_{cw} (1s)		5kA (400A); 8kA (630A)
Pollution degree		3
IP Rating		IP20
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability		15000 operation cycles
Electrical endurance	AC 415V, I_n	4000 operation cycles (400A) 3000 operation cycles (630A)
	AC 690V, I_n	1500 operation cycles
Net weight		5.5kg (Type A); 6kg (Type EN, EM, ENM)

MCCB MX Size 3, 3 Pole, 50kA

Dimensions

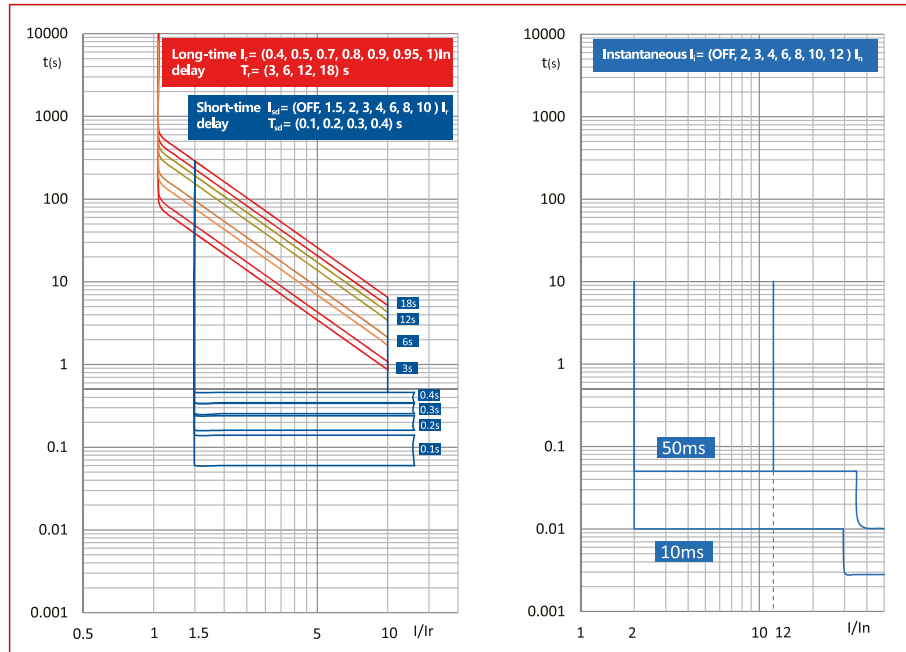


Tripping Characteristic: Type A

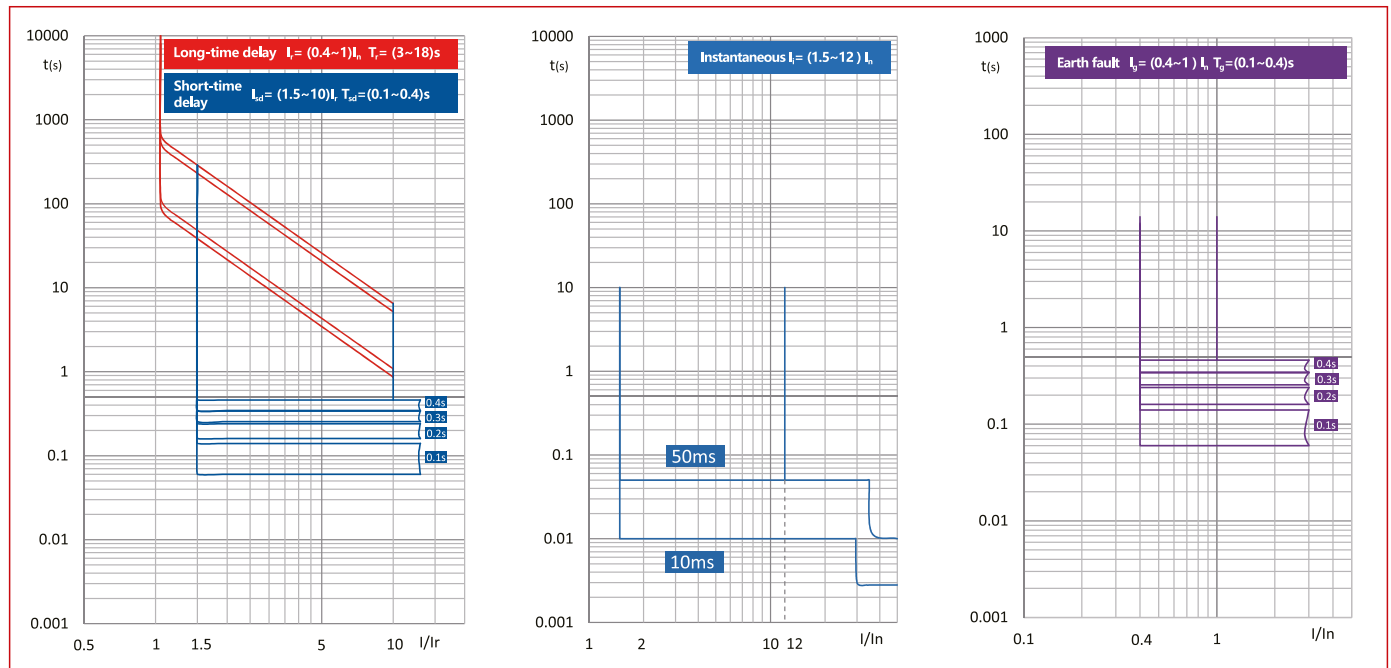


MCCB MX Size 3, 3 Pole, 50kA

Tripping Characteristic: Type EN

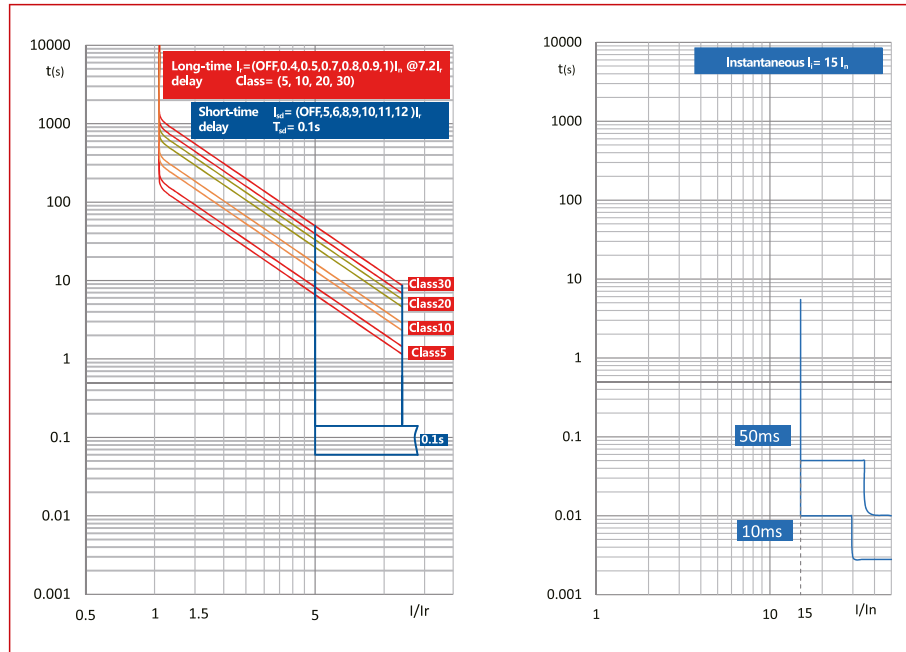


Tripping Characteristic: Type EM



■ MCCB MX Size 3, 3 Pole, 50kA

■ Tripping Characteristic: Type ENM



DESCRIPTION	AVAILABLE	ORDER NO.
400 to 500A with Thermomagnetic Release Unit		
Moulded Case Circuit Breaker Type A, 3 pole, 50kA, 400A		MX340231
Moulded Case Circuit Breaker Type A, 3 pole, 50kA, 500A		MX350231
400 to 630A with Electronic Release Unit		
Moulded Case Circuit Breaker Type EN, 3 pole, 50kA, 400A		MX340232
Moulded Case Circuit Breaker Type EN, 3 pole, 50kA, 630A		MX363232
400 to 630A with Digital Electronic Release Unit		
Moulded Case Circuit Breaker Type EM, 3 pole, 50kA, 400A		MX340233
Moulded Case Circuit Breaker Type EM, 3 pole, 50kA, 630A		MX363233
400 to 630A with Electronic Motor Protection		
Moulded Case Circuit Breaker Type ENM, 3 pole, 50kA, 400A		MX340237
Moulded Case Circuit Breaker Type ENM, 3 pole, 50kA, 630A		MX363237

MCCB MX Size 3, 3 Pole, 70kA



MX340331

Schrack-Info

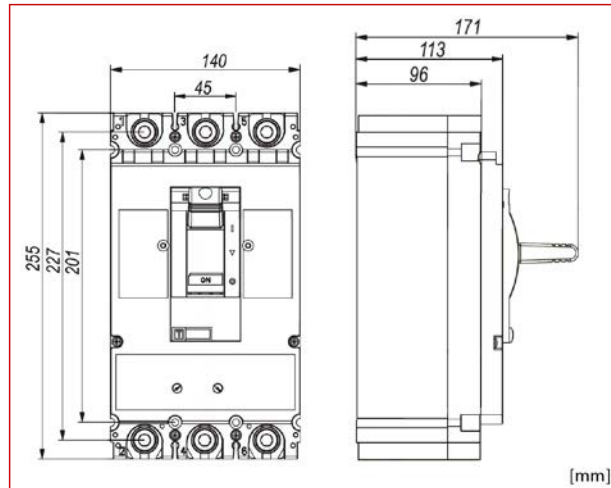
- For system, line protection and motor protection
- Adjustable overload release
 - with thermomagnetic release unit: 0.7 - 1 x I_n
 - with electronic release unit/motor protection: 0.4 - 1 x I_n
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 70kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 400A to 630A

Technical Data

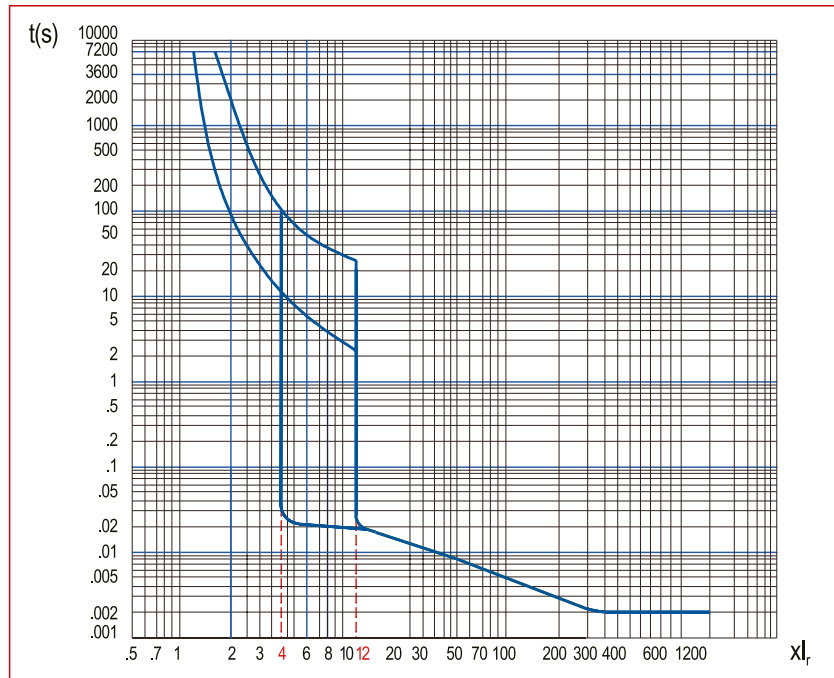
Size type		3
Poles		3
Rated operating current		400-500A (Type A), 400-630A (Type EN, EM, ENM)
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		70kA
Release		Thermomagnetic release - Type A Electronic release - Type EN Digital electronic release - Type EM Electronic release for motor protection - Type ENM
Rated insulation voltage U _i		1000V
Rated impulse withstand voltage U _{imp}		12kV
Rated ultimate short-circuit breaking capacity I _{cu}	AC 380/400/415V	70kA
	AC 440V	70kA
	AC 500V	40kA
	AC 660/690V	12kA
Rated service breaking capacity I _{cs}	AC 380/400/415V	70kA
	AC 440V	70kA
	AC 500V	40kA
	AC 660/690V	12kA
Rated short-time withstand current I _{cw} (1 s)		5kA (400A) 8kA (630A)
Pollution degree		3
IP Rating		IP20
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability		15000 operation cycles
Electrical endurance	AC 415V, I _n	4000 operation cycles (400A) 3000 operation cycles (630A)
	AC 690V, I _n	1500 operation cycles
Net weight		5.5kg (Type A)
		6kg (Type EN, EM, ENM)

MCCB MX Size 3, 3 Pole, 70kA

Dimensions

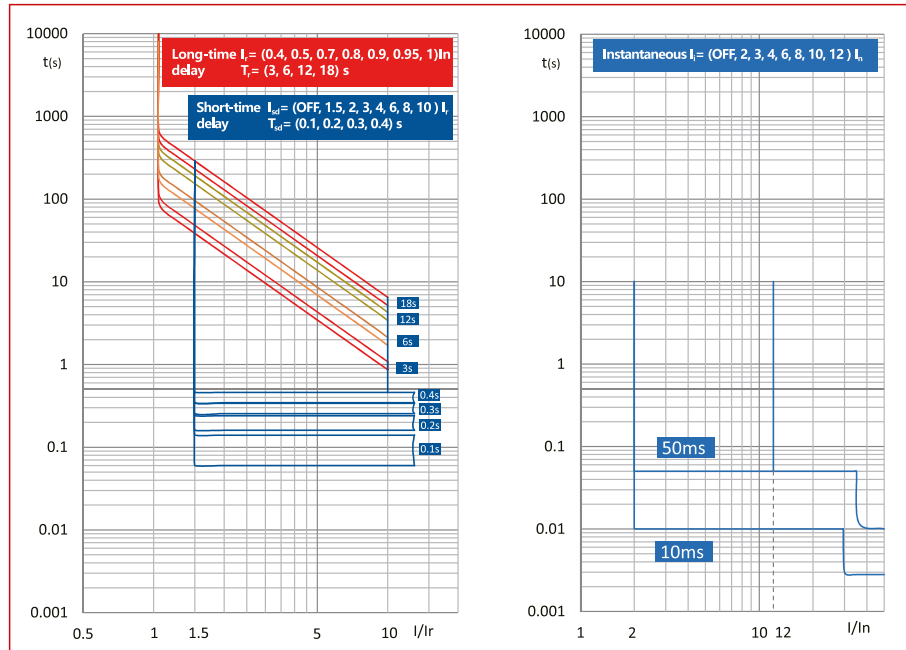


Tripping Characteristic: Type A

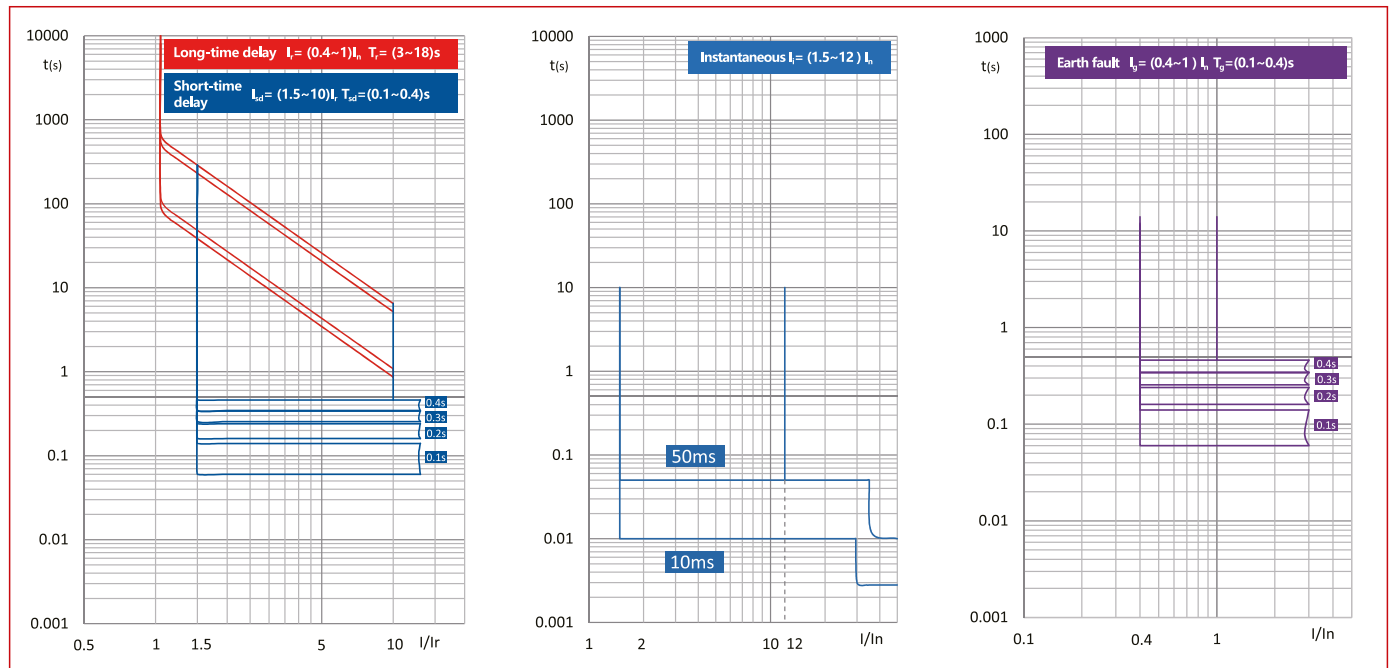


MCCB MX Size 3, 3 Pole, 70kA

Tripping Characteristic: Type EN

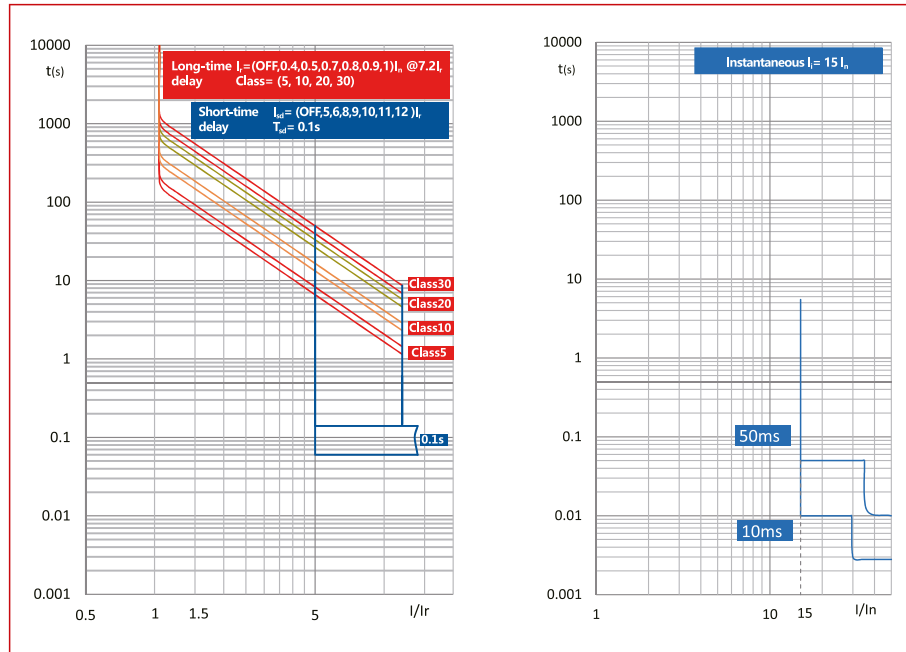


Tripping Characteristic: Type EM



■ MCCB MX Size 3, 3 Pole, 70kA

■ Tripping Characteristic: Type ENM



DESCRIPTION	AVAILABLE	ORDER NO.
400 to 500A with Thermomagnetic Release Unit		
Moulded Case Circuit Breaker Type A, 3 pole, 70kA, 400A		MX340331
Moulded Case Circuit Breaker Type A, 3 pole, 70kA, 500A		MX350331
400 to 630A with Electronic Release Unit		
Moulded Case Circuit Breaker Type EN, 3 pole, 70kA, 400A		MX340332
Moulded Case Circuit Breaker Type EN, 3 pole, 70kA, 630A		MX363332
400 to 630A with Digital Electronic Release Unit		
Moulded Case Circuit Breaker Type EM, 3 pole, 70kA, 400A		MX340333
Moulded Case Circuit Breaker Type EM, 3 pole, 70kA, 630A		MX363333
400 to 630A with Electronic Motor Protection		
Moulded Case Circuit Breaker Type ENM, 3 pole, 70kA, 400A		MX340337
Moulded Case Circuit Breaker Type ENM, 3 pole, 70kA, 630A		MX363337

MCCB MX Size 3, 4 Pole, 36kA



MX340441

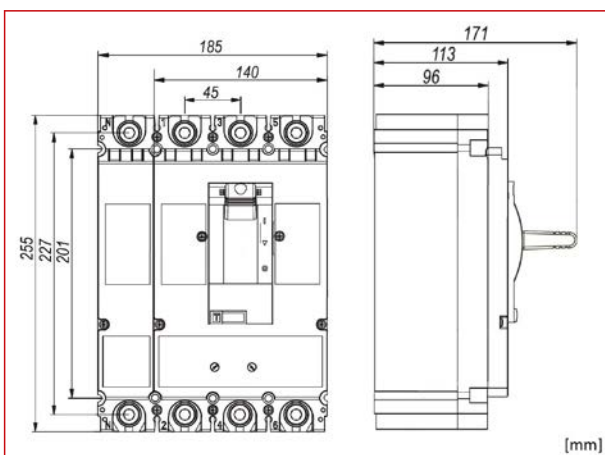
Schrack-Info

- For system and line protection
- Adjustable overload release 0.7 - 1 x I_n
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 36kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 400A to 500A

Technical Data

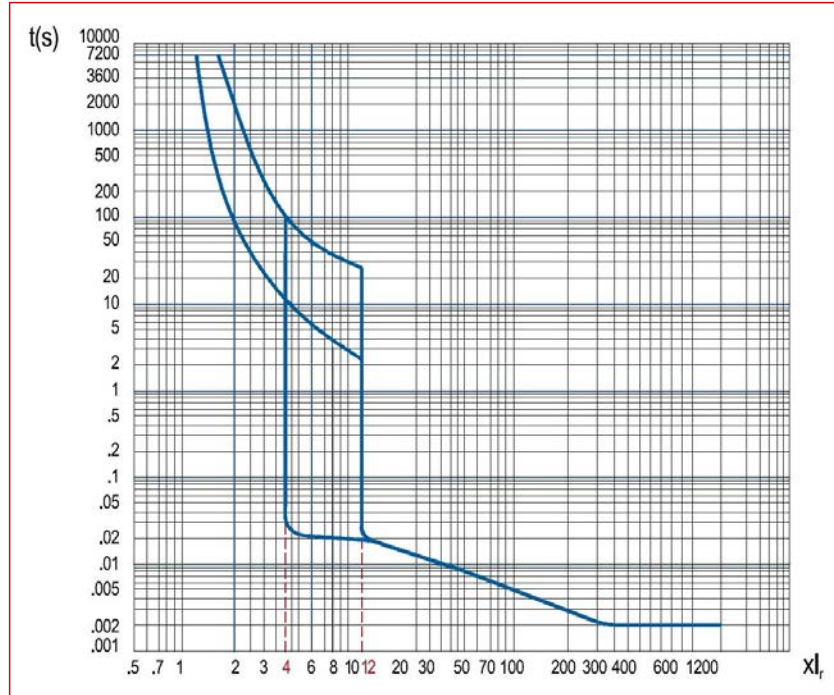
Size type		3
Poles		4
Rated operating current		400-500A
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		36kA
Release		Thermomagnetic release - Type A
Rated insulatoin voltage U _i		1000V
Rated impulse withstand voltage U _{imp}		12kV
Rated impulse withstand voltage I _{cu}	AC 380/400/415V	36kA
	AC 440V	36kA
	AC 500V	25kA
	AC 660/690V	10kA
Rated service breaking capacity I _{cs}	AC 380/400/415V	36kA
	AC 440V	36kA
	AC 500V	25kA
	AC 660/690V	10kA
Rated short-time withstand current I _{cw} (1s)		-
Pollution degree		3
IP Rating		IP20
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability		15000 operation cycles
Electrical endurance	AC 415V, I _n	4000 operation cycles
	AC 690V, I _n	1500 operation cycles
Net weight		7kg



Dimensions



■ MCCB MX Size 3, 4 Pole, 36kA

■ Tripping Characteristic: Type A



DESCRIPTION	AVAILABLE	ORDER NO.
400 to 500A with Thermomagnetic Release Unit		
Moulded Case Circuit Breaker Type A, 4 pole, 36kA, 400A		MX340441
Moulded Case Circuit Breaker Type A, 4 pole, 36kA, 500A		MX350441

MCCB MX Size 3, 4 Pole, 50kA



MX340241

Schrack-Info

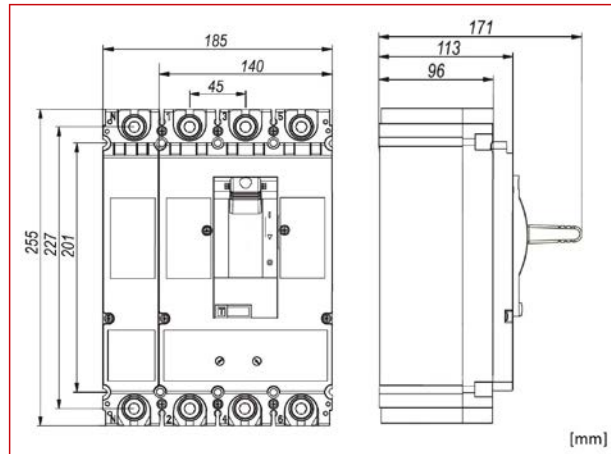
- For system and line protection
- Adjustable overload release
 - with thermomagnetic release unit: 0.7 - 1 x I_n
 - with electronic release unit: 0.4 - 1 x I_n
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 50kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 400A to 630A

Technical Data

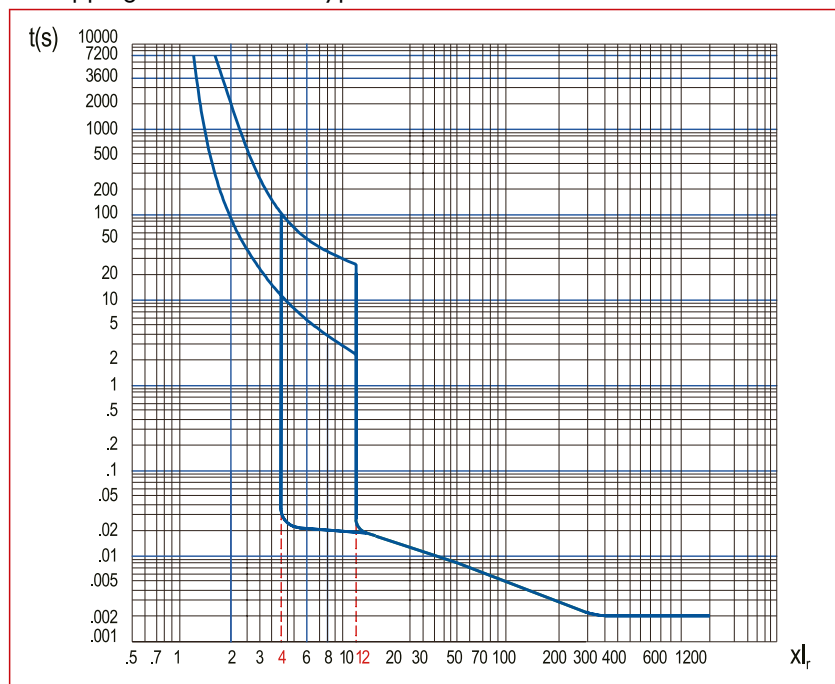
Size type		3
Poles		4
Rated operating current		400-500A (Type A), 400-630A (Type EN, EM, ENM)
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		50kA
Release		Thermomagnetic release - Type A Electronic release - Type EN Digital electronic release - Type EM Electronic release for motor protection - Type ENM
Rated insulation voltage U _i		1000V
Rated impulse withstand voltage U _{imp}		12kV
Rated ultimate short-circuit breaking capacity I _{cu}	AC 380/400/415V	50kA
	AC 440V	50kA
	AC 500V	40kA
	AC 660/690V	12kA
Rated service breaking capacity I _{cs}	AC 380/400/415V	50kA
	AC 440V	50kA
	AC 500V	40kA
	AC 660/690V	12kA
Rated short-time withstand current I _{cw} (1s)		5kA (400A) 8kA (630A)
Pollution degree		3
IP Rating		IP20
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability		15000 operation cycles
Electrical endurance	AC 415V, I _n	4000 operation cycles (400A) 3000 operation cycles (630A)
	AC 690V, I _n	1500 operation cycles
Net weight		7kg (Type A)
		6kg (Type EN, EM, ENM)

MCCB MX Size 3, 4 Pole, 50kA

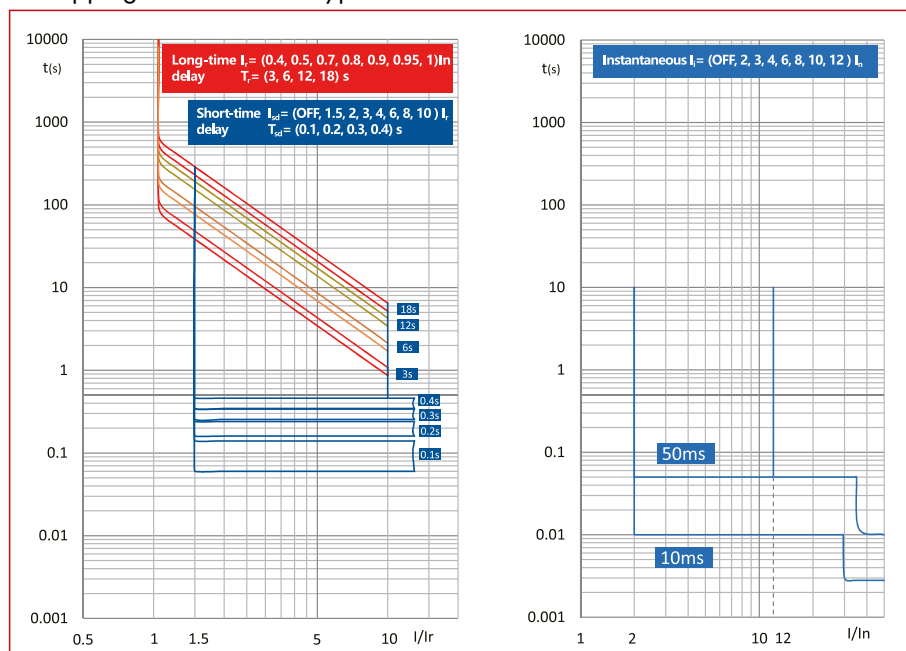
Dimensions








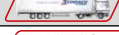

Tripping Characteristic: Type A



Tripping Characteristic: Type EN



 MCCB MX Size 3, 4 Pole, 50kA

DESCRIPTION	AVAILABLE	ORDER NO.
400 to 500A with Thermomagnetic Release Unit		
Moulded Case Circuit Breaker Type A, 4 pole, 50kA, 400A		MX340241
Moulded Case Circuit Breaker Type A, 4 pole, 50kA, 500A		MX350241
400 to 630A with Electronic Release Unit		
Moulded Case Circuit Breaker Type EN, 4 pole, 50kA, 400A		MX340242
Moulded Case Circuit Breaker Type EN, 4 pole, 50kA, 630A		MX363242
400 to 630A with Digital Electronic Release Unit		
Moulded Case Circuit Breaker Type EM, 4 pole, 50kA, 400A		MX340243
Moulded Case Circuit Breaker Type EM, 4 pole, 50kA, 630A		MX363243



On stock, usually ready for delivery on the day of order

MCCB MX Size 3, 4 Pole, 70kA



MX340341

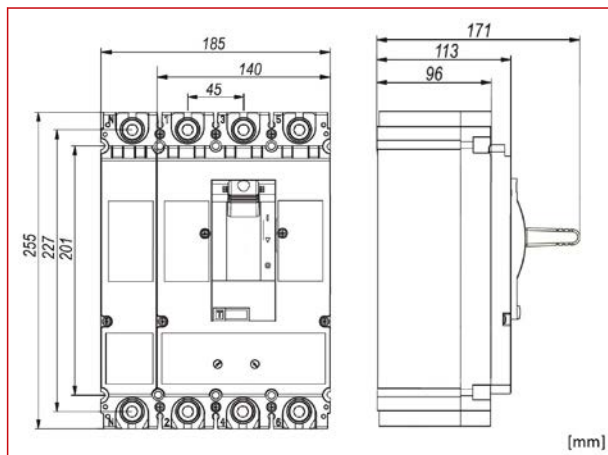
Schrack-Info

- For system and line protection
- Adjustable overload release
 - with thermomagnetic release unit: $0.7 - 1 \times I_n$
 - with electronic release unit: $0.4 - 1 \times I_n$
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 70kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 400A to 630A

Technical Data

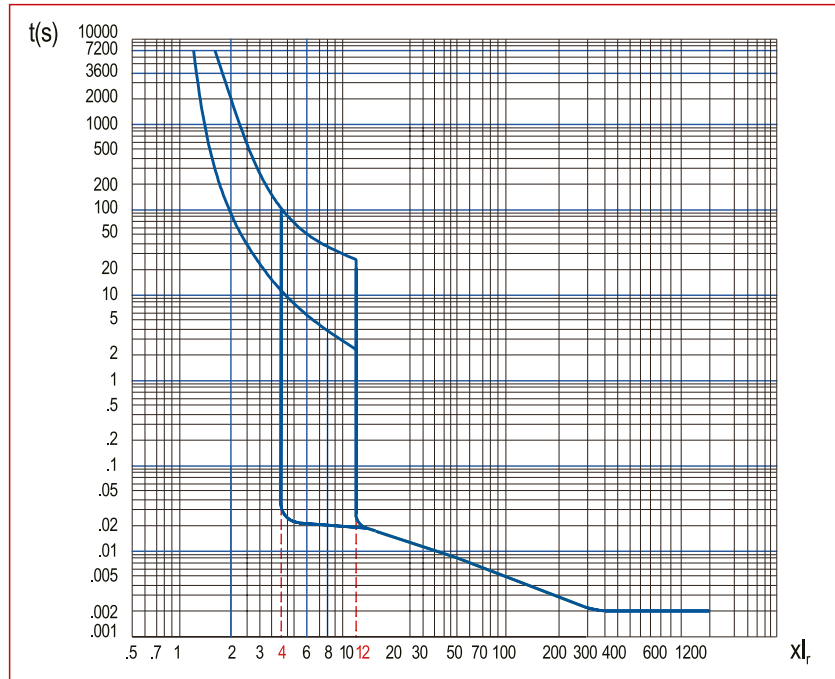
Size type		3
Poles		4
Rated operating current		400-500A (Type A), 400-630A (Type EN, EM, ENM)
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		70kA
Release		Thermomagnetic release - Type A Electronic release - Type EN Digital electronic release - Type EM Electronic release for motor protection - Type ENM
Rated insulation voltage U_i		1000V
Rated impulse withstand voltage U_{imp}		12V
Rated ultimate short-circuit breaking capacity I_{cu}	AC 380/400/415V	70kA
	AC 440V	70kA
	AC 500V	40kA
	AC 660/690V	12kA
Rated service breaking capacity I_{cs}	AC 380/400/415V	70kA
	AC 440V	70kA
	AC 500V	40kA
	AC 660/690V	12kA
Rated short-time withstand current I_{cw} (1s)		5kA (400A)
		8kA (630A)
Pollution degree		3
IP Rating		IP20
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability		15000 operation cycles
Electrical endurance	AC 415V, I_n	4000 operation cycles (400A) 3000 operation cycles (630A)
	AC 690V, I_n	1500 operation cycles
Net weight		7kg (Type A)
		8kg (Type EN, EM, ENM)

Dimensions

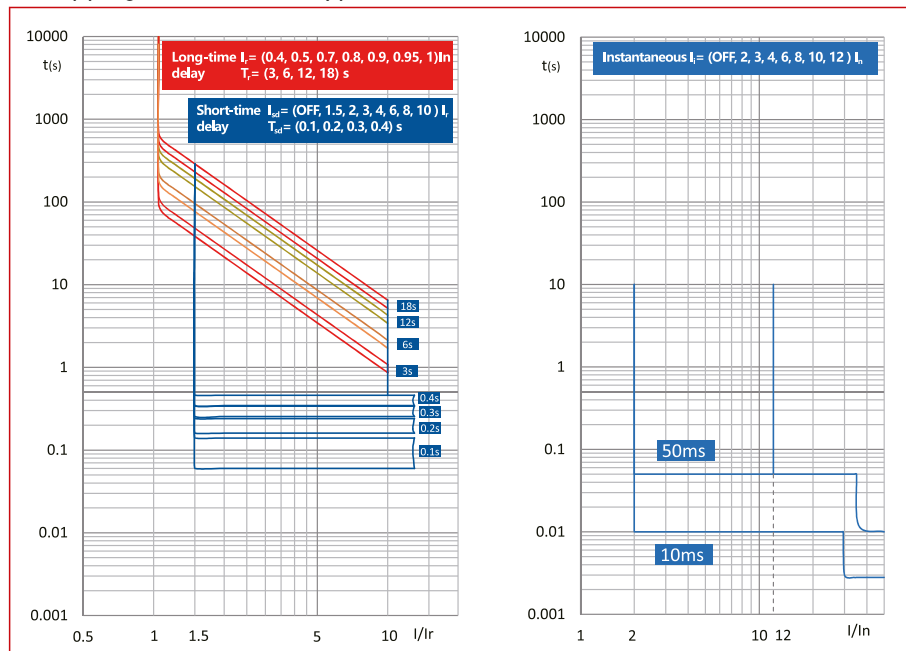


MCCB MX Size 3, 4 Pole, 70kA

Tripping Characteristic: Type A

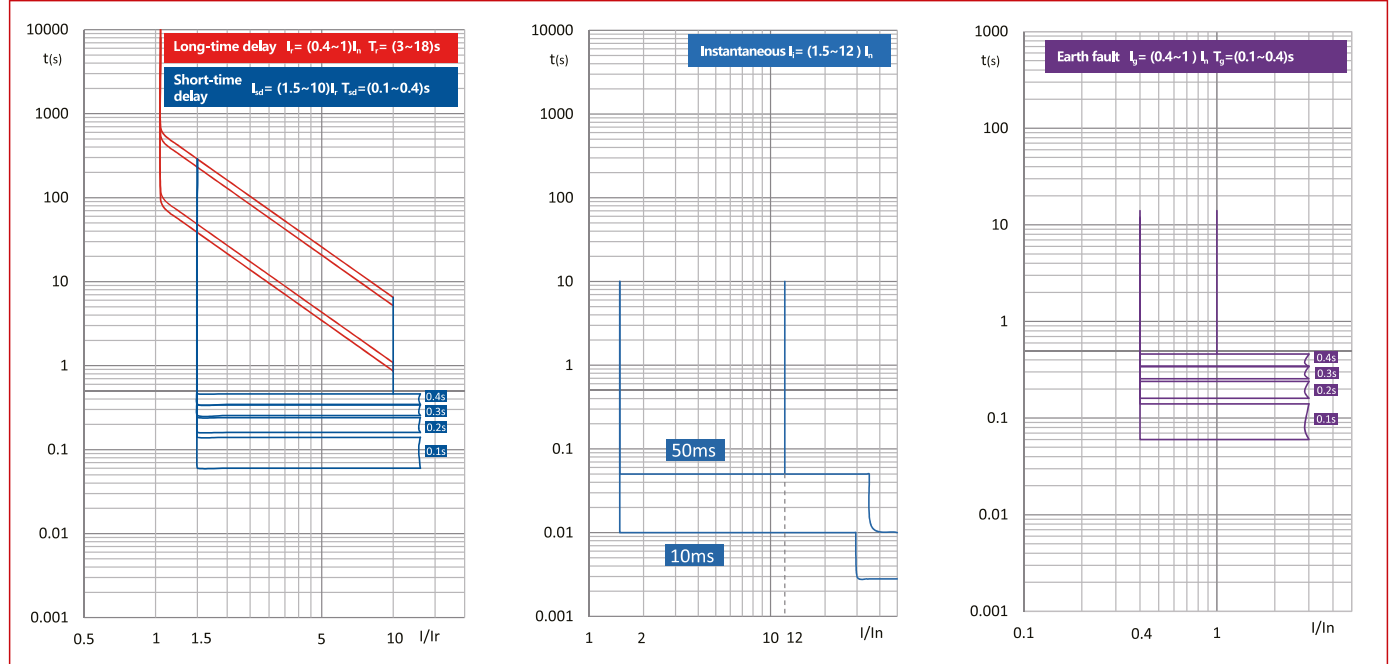


Tripping Characteristic: Type EN



MCCB MX Size 3, 4 Pole, 70kA

Tripping Characteristic: Type EM



DESCRIPTION	AVAILABLE	ORDER NO.
400 to 500A with Thermomagnetic Release Unit		
Moulded Case Circuit Breaker Type A, 4 pole, 70kA, 400A		MX340341
Moulded Case Circuit Breaker Type A, 4 pole, 70kA, 500A		MX350341
400 to 630A with Electronic Release Unit		
Moulded Case Circuit Breaker Type EN, 4 pole, 70kA, 400A		MX340342
Moulded Case Circuit Breaker Type EN, 4 pole, 70kA, 630A		MX363342
400 to 630A with Digital Electronic Release Unit		
Moulded Case Circuit Breaker Type EM, 4 pole, 70kA, 400A		MX340343
Moulded Case Circuit Breaker Type EM, 4 pole, 70kA, 630A		MX363343

Combination MCCB Size 3 and RCD



MX340332F1

Schrack-Info

MX340332F1: Combination MX340332 MCCB (Type EN, 3P, 70kA, 400A) and RCD F1
MX340342F1: Combination MX340342 MCCB (Type EN, 4P, 70kA, 400A) and RCD F1
MX363332F1: Combination MX363332 MCCB (Type EN, 3P, 70kA, 630A) and RCD F1
MX363342F1: Combination MX363342 MCCB (Type EN, 4P, 70kA, 630A) and RCD F1
MX340332F2: Combination MX340332 MCCB (Type EN, 3P, 70kA, 400A) and RCD F2
MX340342F2: Combination MX340342 MCCB (Type EN, 4P, 70kA, 400A) and RCD F2
MX363332F2: Combination MX363332 MCCB (Type EN, 3P, 70kA, 630A) and RCD F2
MX363342F2: Combination MX363342 MCCB (Type EN, 4P, 70kA, 630A) and RCD F2

Residual Current Device:

- Release Type A
- Four-step adjustable rated residual operating current
 - F1: $I_{\Delta n}$ = 50mA-200mA-0.5A-1A
 - F2: $I_{\Delta n}$ = 100mA-300mA-1A-2A
- Adjustable delay time 0-60-200-500ms

Technical Data: RCD









Rated operating current I_n (40°C)		630A
Size		3
Poles		3P, 4P
Rated insulation voltage U_i		1000V
Rated impulse withstand voltage U_{imp}		12kV
Rated operational voltage U_e (50/60Hz)		380/440/415VAC, 440VAC
Rated residual non-operating current $I_{\Delta n}$	F1	0.05-0.2-0.5-1A
	F2	0.1-0.3-1-2A
Rated residual operating current $I_{\Delta no}$		$0.5I_{\Delta n}$ A
Limit non-actuating time		Δt : 0-60-200-500ms*
Breaking time		100-300-500-1000ms
Rated residual making and breaking capacity $I_{\Delta m}$		$0.25I_{cu}$ kA
Standard		IEC/EN 60947-2
Ambient temperature		-25°C ~ 70°C
Arcing distance		0
Dimension with circuitbreaker	Width (3P/4P)	140mm/185mm
	Height	355mm
	Depth	113mm
Weight	3P	1.98kg
	4P	2.69kg

Note: *When the residual operating current is set to 0.03A, the limit non-actuating time must be set to 0.

Derating Factor for Circuit Breaker with RCD

Model		Derating factor
MX3	400A	1
	630A	0.9

Combination MCCB Size 3 and RCD

DESCRIPTION	AVAILABLE	ORDER NO.
Combination MCCB Type EN, 3P, 70kA, 400A and RCD up to 1A		MX340332F1
Combination MCCB Type EN, 3P, 70kA, 400A and RCD up to 2A		MX340332F2
Combination MCCB Type EN, 3P, 70kA, 630A and RCD up to 1A		MX363332F1
Combination MCCB Type EN, 3P, 70kA, 630A and RCD up to 2A		MX363332F2
Combination MCCB Type EN, 4P, 70kA, 400A and RCD up to 1A		MX340342F1
Combination MCCB Type EN, 4P, 70kA, 630A and RCD up to 1A		MX363342F1
Combination MCCB Type EN, 4P, 70kA, 630A and RCD up to 2A		MX363342F2
Combination MCCB Type EN, 4P, 70kA, 400A and RCD up to 2A		MX340342F2

MCCB MX Size 3, Selectivity table

Downstream	Upstream In(A)	MX3-A MCCB					MX3-EN, EM, ENM MCCB		
		250	315	350	400	500	250	400	630
AM MCB	≤10	T	T	T	T	T	T	T	T
	16	T	T	T	T	T	T	T	T
	20	T	T	T	T	T	T	T	T
	25	T	T	T	T	T	T	T	T
	32	T	T	T	T	T	T	T	T
	40	T	T	T	T	T	T	T	T
	50	T	T	T	T	T	T	T	T
AK RCBO 1+N	≤10	T	T	T	T	T	T	T	T
	13	T	T	T	T	T	T	T	T
	16	T	T	T	T	T	T	T	T
	20	T	T	T	T	T	T	T	T
	25	T	T	T	T	T	T	T	T
	32	T	T	T	T	T	T	T	T
	40	T	T	T	T	T	T	T	T
AK RCBO 3+N	≤10	T	T	T	T	T	T	T	T
	13	T	T	T	T	T	T	T	T
	16	T	T	T	T	T	T	T	T
	20	T	T	T	T	T	T	T	T
	25	T	T	T	T	T	T	T	T
	32	T	T	T	T	T	T	T	T
	40	T	T	T	T	T	T	T	T
AM_{xxx5xx} MCB 1+N/ 1TE	≤10	T	T	T	T	T	T	T	T
	16	T	T	T	T	T	T	T	T
	20	T	T	T	T	T	T	T	T
	25	T	T	T	T	T	T	T	T
	32	T	T	T	T	T	T	T	T
	40	T	T	T	T	T	T	T	T
MX1 MCCB	16	T	T	T	T	T	T	T	T
	20	T	T	T	T	T	T	T	T
	25	T	T	T	T	T	T	T	T
	32	T	T	T	T	T	T	T	T
	40	2.8kA	3.5kA	4kA	5kA	T	2.8kA	5kA	T
	50	2.8kA	3.5kA	4kA	5kA	T	2.8kA	5kA	T
	63	2.8kA	3.5kA	4kA	5kA	T	2.8kA	5kA	T
	80	2.8kA	3.5kA	4kA	5kA	T	2.8kA	5kA	T
	100	2.8kA	3.5kA	4kA	5kA	T	2.8kA	5kA	T
125	2.8kA	3.5kA	4kA	5kA	T	2.8kA	5kA	T	
MX2-A MCCB	125	2.8kA	3.5kA	4kA	5kA	T	2.8kA	5kA	T
	160	2.8kA	3.5kA	4kA	5kA	T	2.8kA	5kA	T
	180		3.5kA	4kA	5kA	T		5kA	T
	200			4kA	5kA	T		5kA	T
	225				5kA	T		5kA	T
MX2-EN, EM, ENM MCCB	250				5kA	T		5kA	T
	32	2.8kA	3.5kA	4kA	5kA	T	2.8kA	5kA	T
	63	2.8kA	3.5kA	4kA	5kA	T	2.8kA	5kA	T
	100	2.8kA	3.5kA	4kA	5kA	T	2.8kA	5kA	T
	160			4kA	5kA	T		5kA	T
MX3-A MCCB	250				5kA	6kA			9.5kA
	315					6kA			9.5kA
	350								9.5kA
MX3-EN, EM, ENM MCCB	250				5kA	6kA	5kA	9.5kA	

Notes:

- 1) No content, indicating no selectivity.
- 2) 1 kA, indicating local selectivity, the number indicates the maximum fault current to achieve selectivity. For example, selectivity can be achieved below 1 kA, and above 1 kA upper and lower level circuit breakers may act simultaneously.
- 3) T, indicates that the full selectivity is satisfied within the breaking capacity of the lower level circuit breaker.

MCCB MX Size 3 - Accessories



MX390015



MX390125



MX390172



MX390199



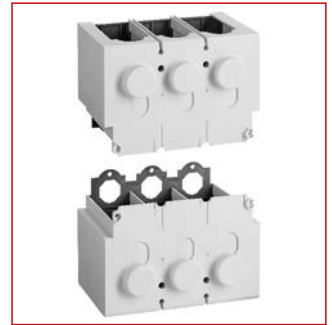
MX396731



MX399832



MX390780



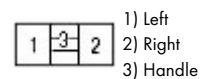
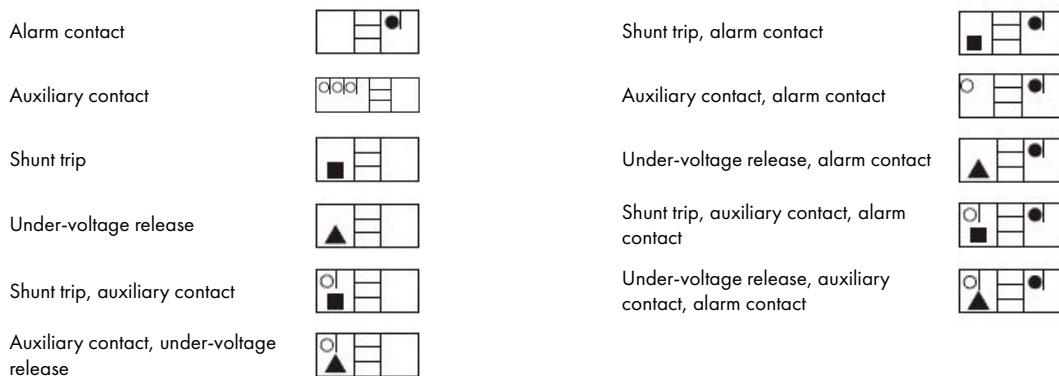
MX390783

Schrack-Info

Wide range of accessories:

- Auxiliary contacts
- Rotary handles, door coupling handles
- Under voltage release units, shunt-trips
- Residual current release units
- Connection accessories
- General accessories

Installation Diagram for Accessories



- 1) Left
- 2) Right
- 3) Handle
- Shunt trip
- ▲ Under-voltage release
- Auxiliary contact
- Alarm contact

-) MX3 cannot be equipped with undervoltage release and shunt release at the same time;
-) MX3 can be equipped with a maximum of 3 auxiliary contacts
-) MX series can only be equipped with one alarm contact

MCCB MX Size 3 - Accessories

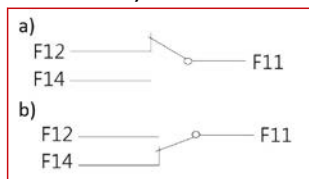
Derating Factor Table for Circuit Breaker with Residual Current Protection Module

Model		Derating factor
MX3 MCCB Type A + MX3 RCD	400A 500A	0.93 0.87
MX3 MCCB Type EN, EM, ENM + MX3 RCD	400A ~ 500A 630A	1 0.90

Derating Factor Table for Circuit Breakers with Plug-In and Drive-In socket

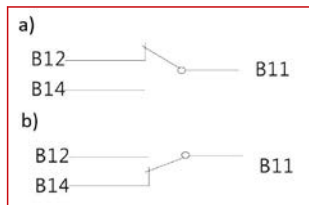
Model		Derating factor
MX3 MCCB Type A	400A 500A	1 0.95
MX3 MCCB Type EN, EM, ENM	400A ~ 500A 630A	1 0.90

Auxiliary Contact: Indication of Circuit Breaker Status



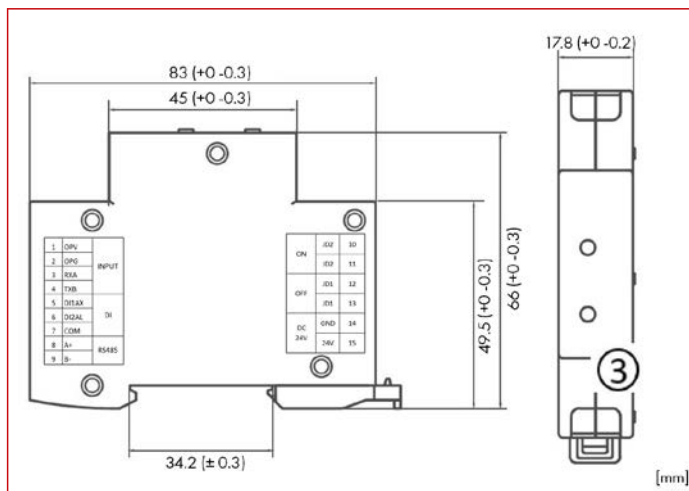
a) Circuit breaker is at breaking status
b) Circuit breaker is at making status

Alarm Contact: Indication of Circuit Breaker Status



a) Circuit breaker is at breaking or making status
b) Circuit breaker is at free tripping status

Communication Module



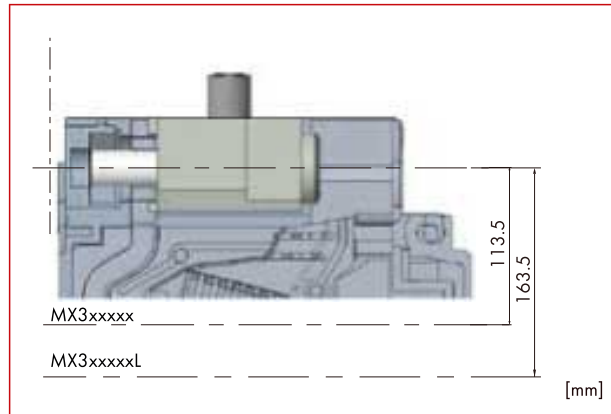
The communication module is an interface module for communication between the electronic trigger of the circuit breakers and the bus system and takes over the communication and output of the remote control via relay contacts.

- Rated voltage: AC230V or DC24V (fault range ± 15%)
- Communication type: RS485 (Modbus RTU protocol)
- Contact capacity: AC250V/3A; DC30V / 3A
- Transmission medium: shielded twisted cable
- Transmission distance: 1.2 km (with shielded twisted pair of category A)
- Display of operating status: LED display
- Number of stations: 1 station

INPUT	1	OPV	15V output, connection to controller 15V input
INPUT	2	OPG	GND, connect to controller GND
INPUT	3	RXA	RS485 Bus A, connection to controller RS485A
INPUT	4	TXB	RS485 Bus B, connection to controller RS485B
DI	5	DI1 (AX)	Auxiliary signal input, connection to AX PIN 4 auxiliary module
DI	6	DI2 (AL)	Alarm signal input, connection to alarm module AL PIN 4
DI	7	COM	Common terminal, connection to AX, AL, PIN 1
RS485	8	A+	RS485 Bus A, connection to external RS485 Bus A
RS485	9	B-	RS485 Bus B, connection to external RS485 Bus B
ON	10	JD2	Relay output, connection with motor drive for switching on
ON	11	JD2	Relay output, connection with motor drive for switching on
OFF	12	JD1	Relay output, connection with motor drive for switching off
OFF	13	JD1	Relay output, connection with motor drive for switching off
DC24V	14	GND	Supply voltage GND (DC24V model)
DC24V	15	24V	Supply voltage 24V (DC24V model)
AC230	14	N	Supply voltage 230V (AC230V model)
AC230	15	L	Supply voltage 230V (AC230V model)

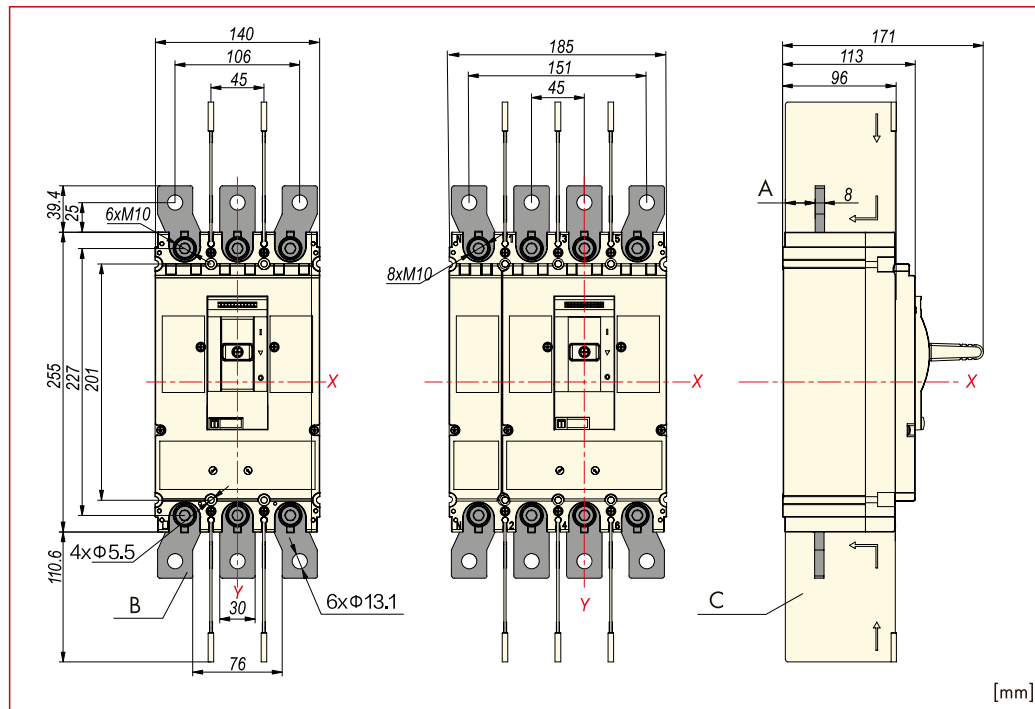
MCCB MX Size 3 - Accessories

Tunnel Terminal for MX3 4X95mm²



Suitable for aluminum and Cu conductors.
It enables the direct connection of bare conductors.

Connection Extension for MX3 3- and 4 Pole

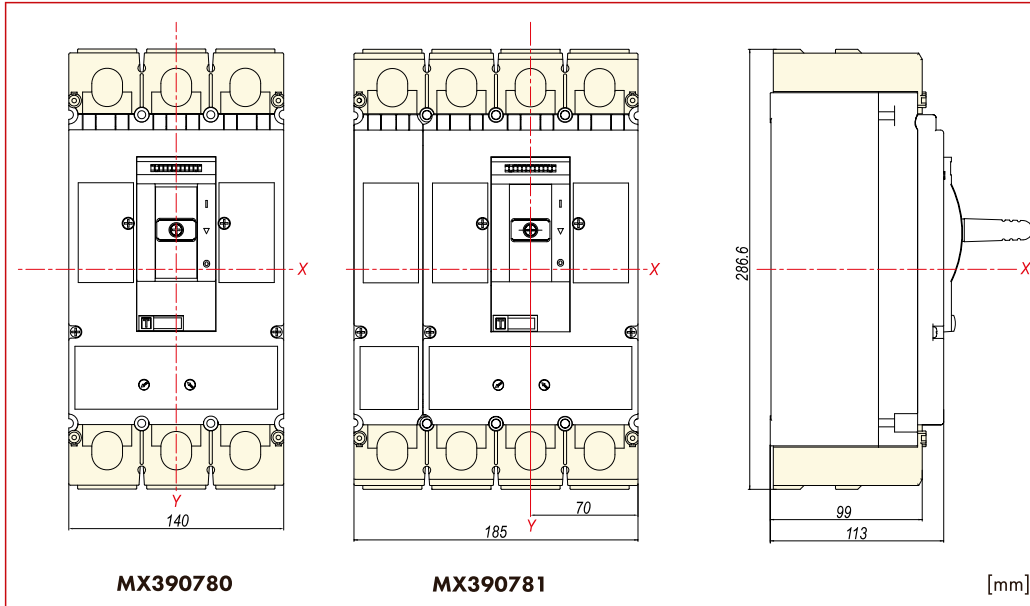


A	Top view
B	Connection expansion
C	Phase separator
X	Horizontal centre
Y	Vertical centre

Enables a more flexible connection. Installation allows the distance between adjacent poles at the inputs and outputs of the circuit breaker to be increased.

■ MCCB MX Size 3 - Accessories

■ Terminal Cover Short for MX3 3- and 4 Pole

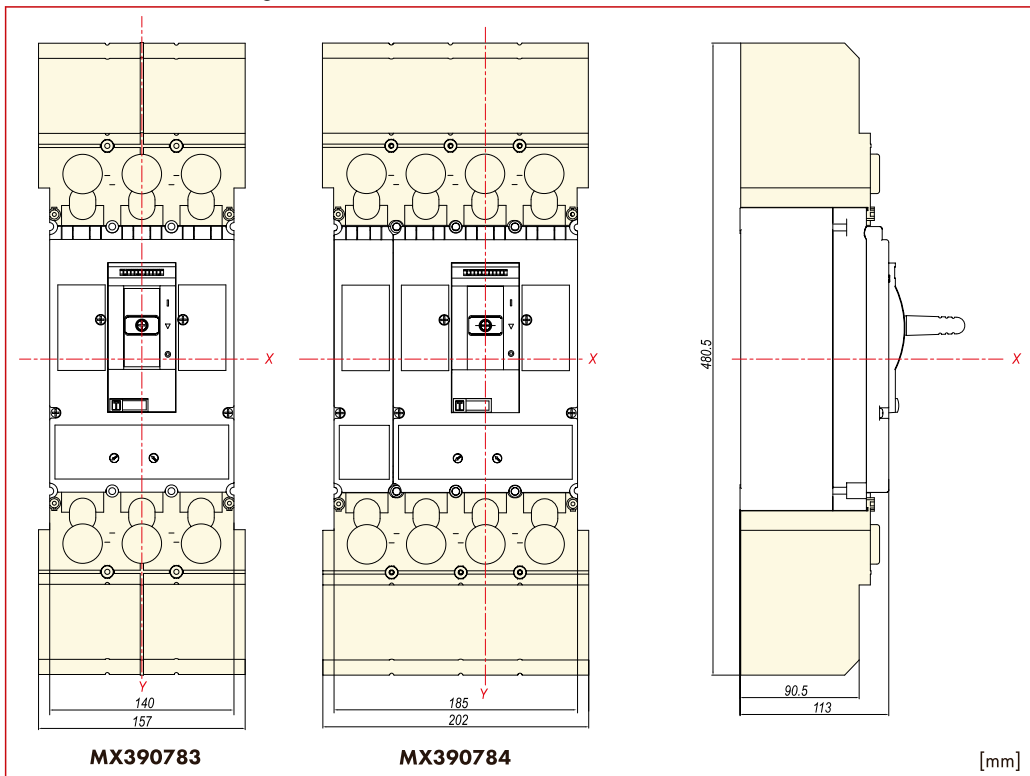


Protection class: IP40

Serves to protect the contacts against contact and also serves as phase separation.

If the voltage exceeds 500V, the terminal cover must be used.

■ Terminal Cover Long for MX3 3- and 4 Pole



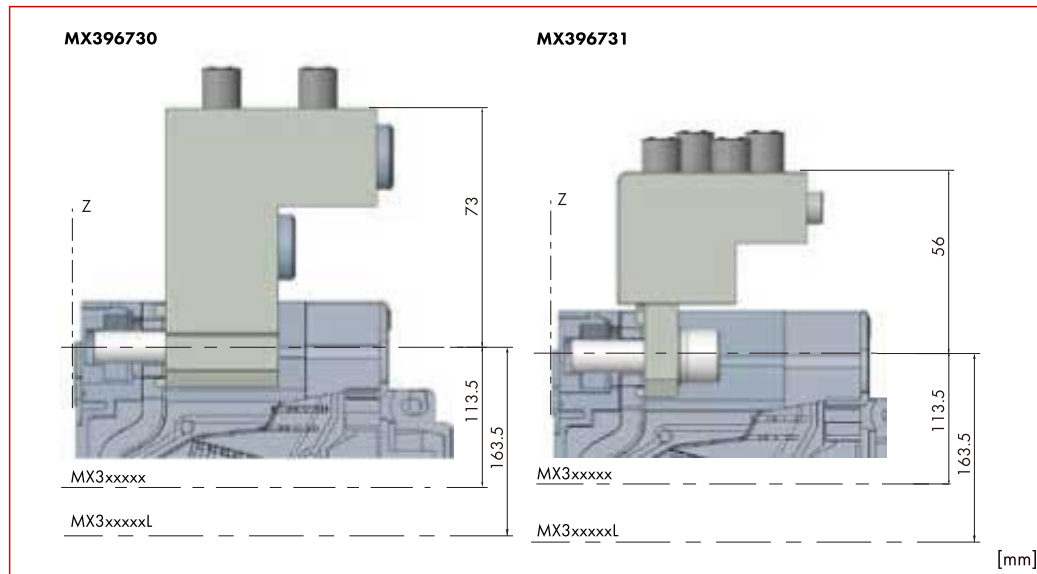
Protection class: IP40

Serves to protect the contacts against contact and also serves as phase separation.

If the voltage exceeds 500V, the terminal cover must be used.

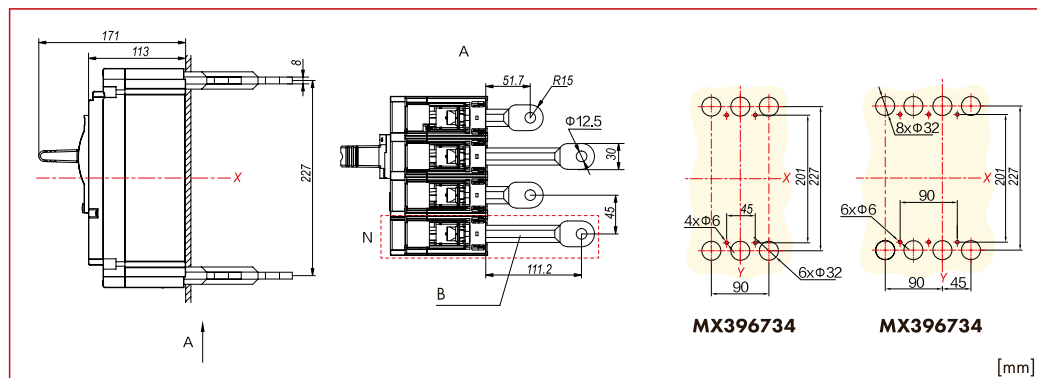
MCCB MX Size 3 - Accessories

Tunnel Terminal 2x120-240mm²/4X95mm²



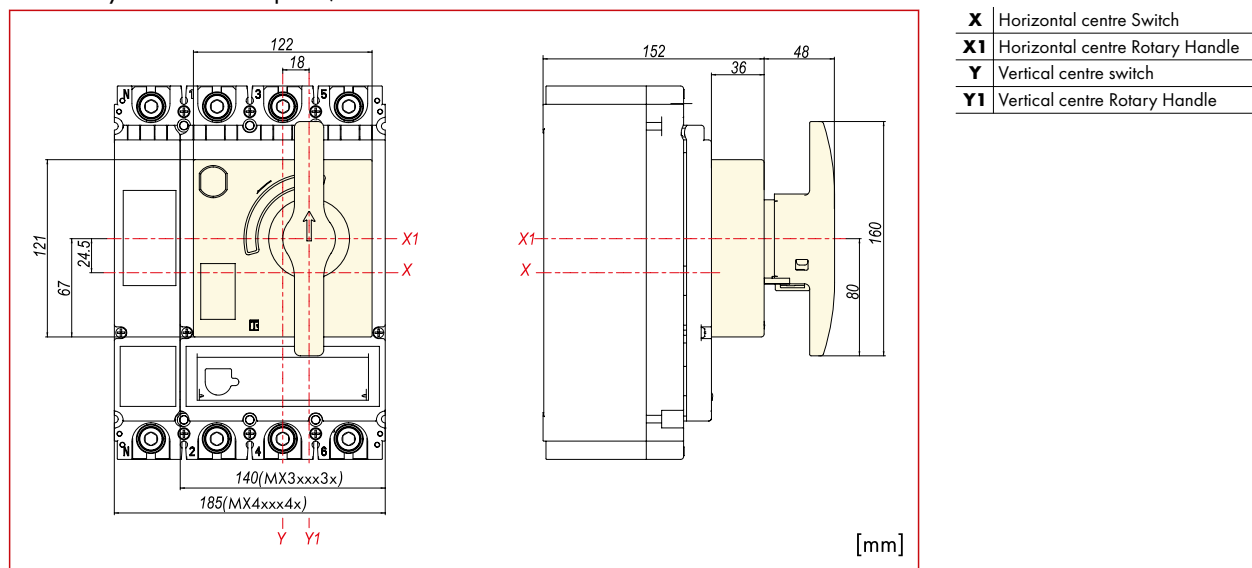
Suitable for aluminum and Cu conductors.
It enables the direct connection of bare conductors

Rear Connection for MX3 3- and 4 Pole



Allows the circuit breaker to be connected behind the mounting level.

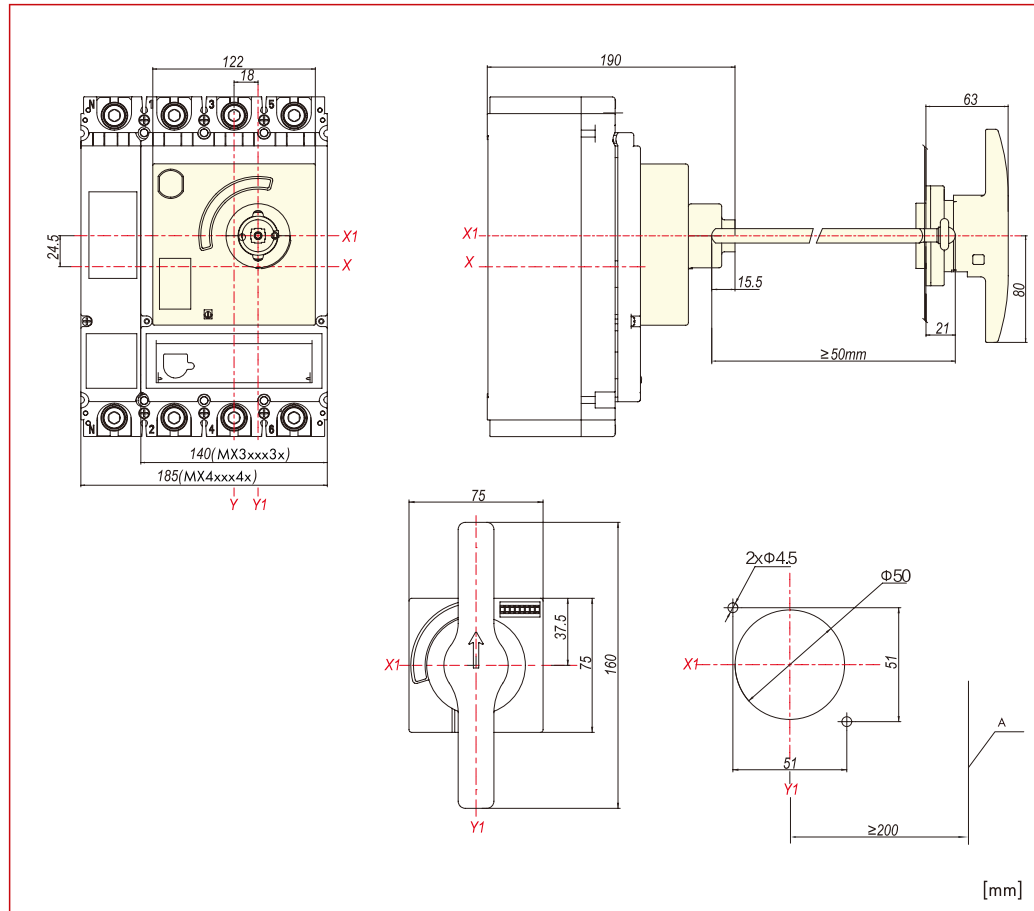
Rotary Handle Complete, Lockable for MX3



Protection class: IP40
Activating position 0, I and released, in 3 positions
The rotary handle can be locked with a padlock in the OFF state.
Attention: two versions for thermomagnetic or electronic triggers

MCCB MX Size 3 - Accessories

Door Coupling Rotary Handle, Lockable for MX3



X	Horizontal centre switch
X1	Horizontal centre rotary handle
Y	Vertical centre switch
Y1	Vertical centre rotary handle

Protection class: IP50

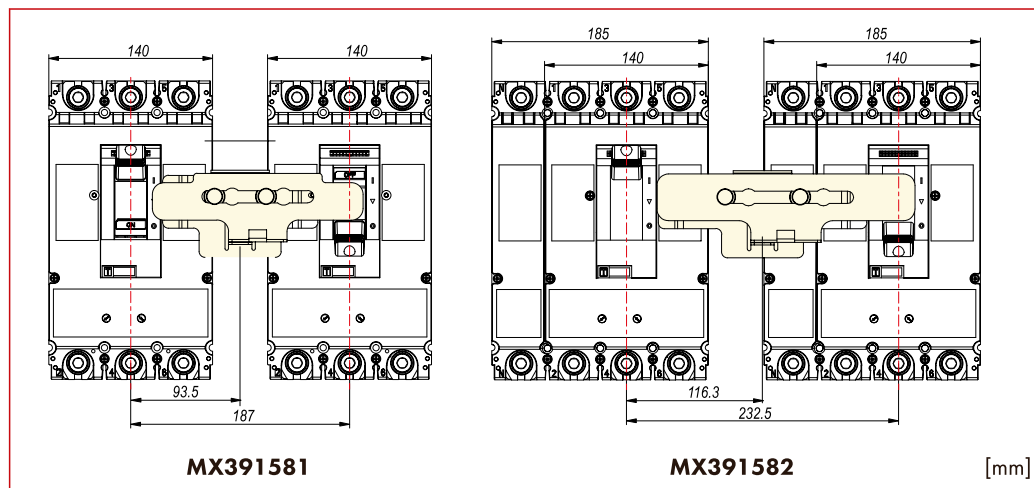
Activation position 0, I and triggered, in 3 positions

The rotary handle can be locked with a padlock in the OFF state.

Attention: two versions for thermomagnetic or electronic triggers.

Control cabinet door locked in position "I"

Mechanical Interlock 3- and 4 Pole



MX391581

MX391582

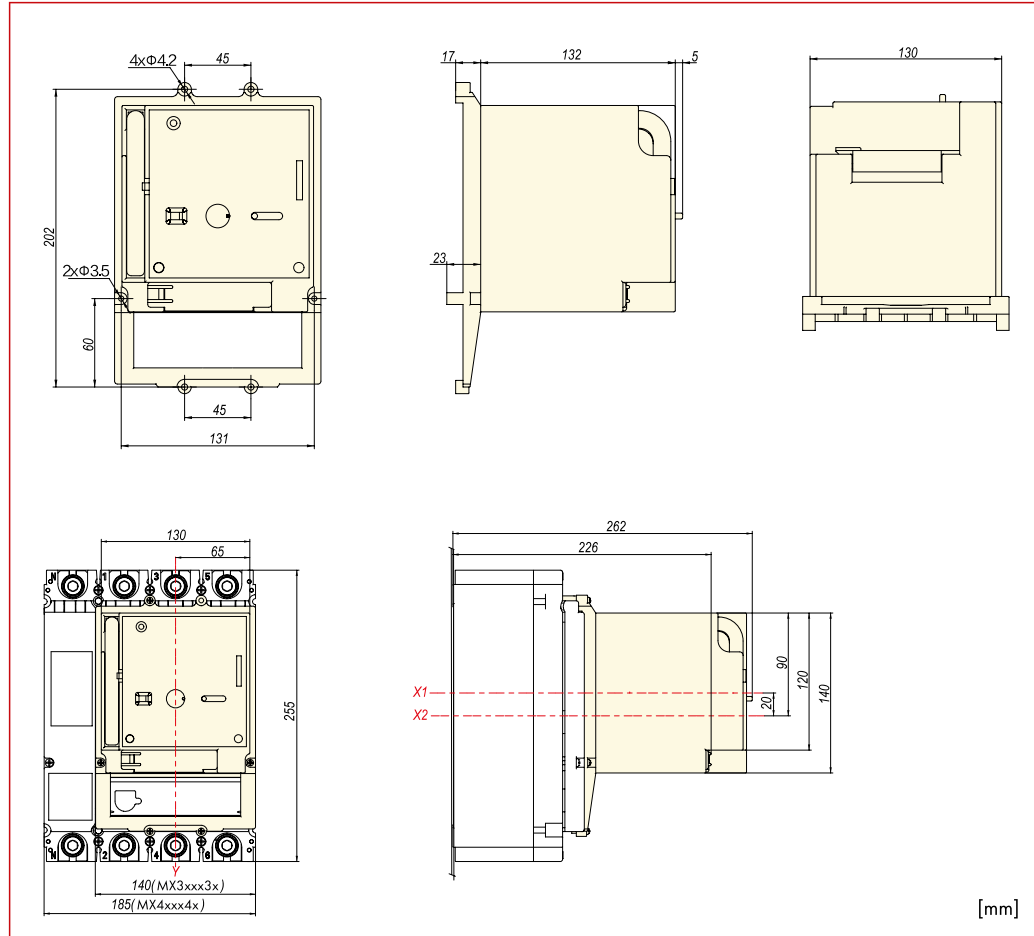
[mm]

When using this locking device with two circuit breakers of the same size, only one of them can be operated. For manual locking of two circuit breakers.

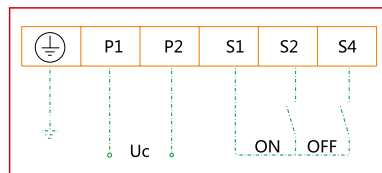
MCCB MX Size 3 - Accessories

Remote Operator for MX3

X1	Horizontal centre remote operator
X2	Horizontal centre switch
Y	Vertical centre



[mm]

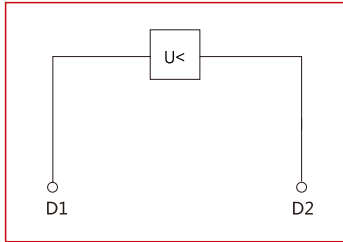


It is suitable for switching on, off and switching on circuit breakers over long distances, as well as for automation applications.

- Protection class: IP40
- Display 0, I and triggered in 3 positions
- Switching between Automatic and Manual Operation
- Automatic switching via electrical control inputs
- Manual switching via key.
- When control voltage is between 85% and 110%, the circuit breaker can be reliably switched on and off.

■ MCCB MX Size 3 - Accessories

■ Under Voltage Release for MX3



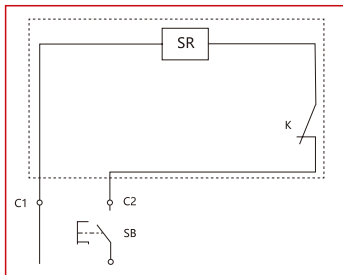
Instantaneous tripping of circuit breakers or switch-disconnectors when the supply voltage drops below 35% - 70%.

Can be used with EMERGENCY STOP devices.

Is installed in the circuit breaker.

















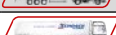
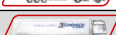



























When the undervoltage release is de-energised, contacting of the breaker main contacts is reliably prevented during closing attempts.

■ Shunt Trip for MX3



Immediate triggering of circuit breakers or switch disconnectors at voltage pulse or application of continuous voltage in the range of 70% to 110% of the rated control voltage. If the working current trigger is live, contacting the switch main contacts during switch-on tests is reliably prevented.

MCCB MX Size 3 - Accessories

DESCRIPTION	AVAILABLE	ORDER NO.
General Accessories		
Communication module Modbus-RTU 24VDC 1.5m		MX290000
Communication module Modbus-RTU 230VAC 1.5m		MX290001
Toggle Lever Locking Device for MX3		MX390199
Battery Box for MX Molded Case Circuit Breaker Typ EN,ENM,EM		MXBAT001
Connecting Technic, Accessories		
Box Terminal for MX3 120-240MM ² , 1 piece		MX390015
Connection extension 3 pole for MX3, 6 pieces		MX390019
Connection extension 4 pole for MX3, 8 pieces		MX390020
Terminal Cover short 3 pole for MX3		MX390780
Terminal Cover short 4 pole for MX3		MX390781
Terminal Cover long 3 pole for MX3		MX390783
Terminal Cover long 4 pole for MX3		MX390784
Tunnel Terminal 2x120-240mm ² for MX3, 1 piece		MX396730
Tunnel Terminal 4x95mm ² for MX3, 1 piece		MX396731
Rear Connection, 3 pole for MX3		MX396734
Rear Connection, 4 pole for MX3		MX396735
Socket for MX3 3 pole		MX396871
Socket for MX3 4 pole		MX396872
Safety release for socket MX3 for thermal release		MX396873
Safety release for socket MX3 for electronic release		MX396874
Phase separator plates MX3		MX396870
Rotary Handles, Door Coupling Handles, Accessories		
Rotary Handle complete, lockable for MX3 for thermal release		MX390125
Rotary Handle complete, lockable for MX3 for electronic release		MX390126
Door Coupling Rotary Handle, lockable, for MX3 for thermal release		MX390172
Door Coupling Rotary Handle, lockable, for MX3 for electronic release		MX390173
Mechanical Interlock for MX3 3 pole		MX391581
Mechanical Interlock for MX3 4 pole		MX391582
Under Voltage Release Units, Shunt-trips and Accessories		
Under Voltage Release 110VAC for MX2, MX3		MX299462
Under Voltage Release 220-240VAC for MX2, MX3		MX299471
Under Voltage Release 380-415VAC for MX2, MX3		MX299473
Under Voltage Release 24VDC for MX2, MX3		MX299481
Under Voltage Release 220VDC for MX2, MX3		MX299489
Shunt trip 110VAC for MX2, MX3		MX299567
Shunt trip 220-240VAC for MX2, MX3		MX290154
Shunt trip 380-415VAC for MX2, MX3		MX291607
Shunt trip 24VDC for MX2, MX3		MX299736
Shunt trip 220VDC for MX2, MX3		MX299742
Remote Operator 24VDC for MX3		MX399837
Remote Operator 110VAC/110-120VDC for MX3		MX399838
Remote Operator 220-240VAC/220VDC for MX3		MX399832
Remote Operator 380-415VAC for MX3		MX399833
Measuring Unit with Modbus 3-pole for MX3, IT-Net		MX390031
Measuring Unit with Modbus 3-pole for MX3, TT/TN-Net		MX390032
Measuring Unit with Modbus 4-pole for MX3		MX390040
Auxiliary Contacts		
Auxiliary contact 1 CO		MX199411
Alarm contact 1 CO		MX199511

MCCB MX Size 4, 3 Pole, 50kA



MX480232

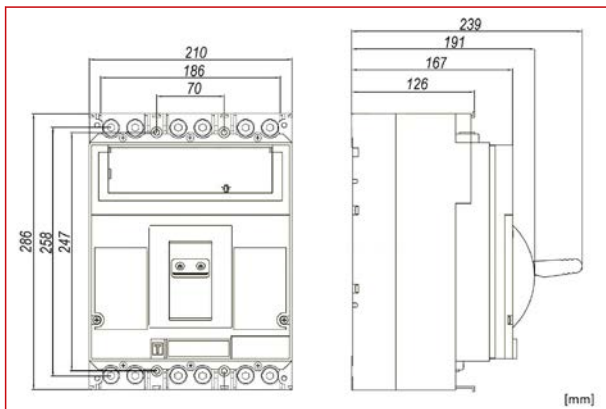
Schrack-Info

- For system and line protection
- Adjustable overload release 0.4 - 1 x I_n
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 50kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 800A to 1600A

Technical Data

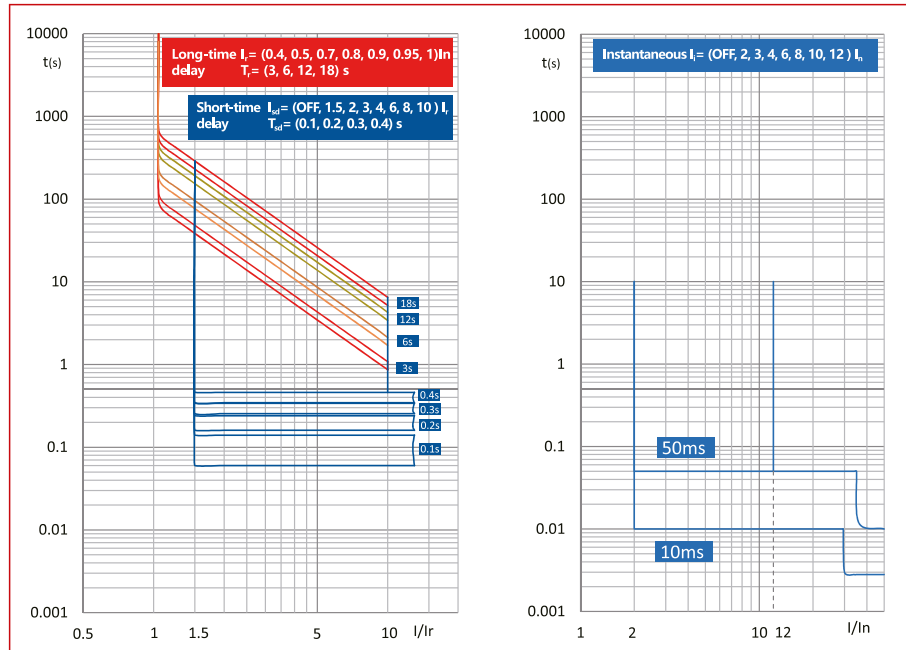
Size type		4
Poles		3
Rated operating current		800 - 1600A
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		50kA
Release		Electronic release - Type EN Digital electronic release - Type EM
Rated insulation voltage U _i		1000V
Rated impulse withstand voltage U _{imp}		8kV
Rated ultimate short-circuit breaking capacity I _{cu}	AC 380/400/415V	50kA
	AC 440V	50kA
	AC 500V	40kA
	AC 660/690V	30kA
Rated service breaking capacity I _{cs}	AC 380/400/415V	50kA
	AC 440V	40kA
	AC 500V	30kA
	AC 660/690V	30kA
Rated short-time withstand current I _{cw} (1s)		20kA
Pollution degree		3
IP Rating		IP40
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability		6000 operation cycles
Electrical endurance	AC 415V, I _n	1000 operation cycles
	AC 690V, I _n	1000 operation cycles
Net weight		13.5kg

Dimensions

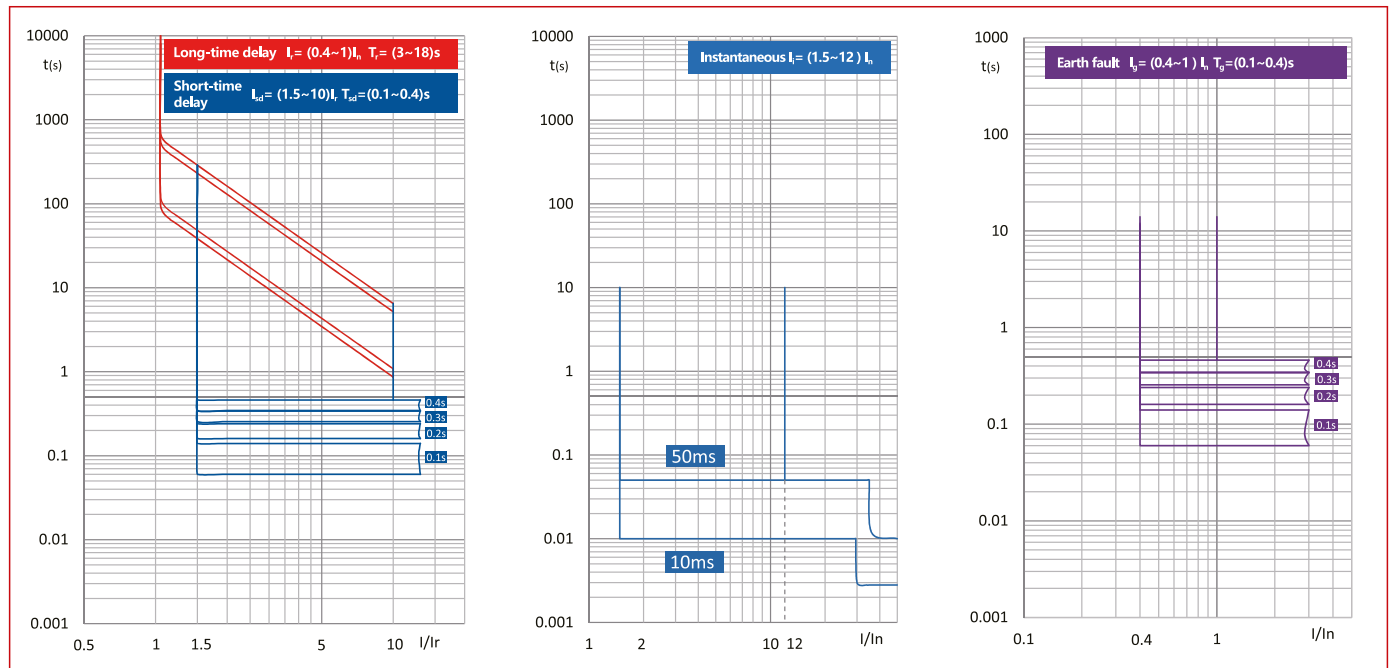


MCCB MX Size 4, 3 Pole, 50kA

Tripping Characteristic: Type EN



Tripping Characteristic: Type EM



DESCRIPTION	AVAILABLE	ORDER NO.
800 to 1600A with Electronic Release Unit		
Moulded Case Circuit Breaker Type EN, 3 pole, 50kA, 800A		MX480232
Moulded Case Circuit Breaker Type EN, 3 pole, 50kA, 1000A		MX410232
Moulded Case Circuit Breaker Type EN, 3 pole, 50kA, 1250A		MX412232
Moulded Case Circuit Breaker Type EN, 3 pole, 50kA, 1600A		MX416232
800 to 1600A with Digital Electronic Release Unit		
Moulded Case Circuit Breaker Type EM, 3 pole, 50kA, 800A		MX480233
Moulded Case Circuit Breaker Type EM, 3 pole, 50kA, 1000A		MX410233
Moulded Case Circuit Breaker Type EM, 3 pole, 50kA, 1250A		MX412233
Moulded Case Circuit Breaker Type EM, 3 pole, 50kA, 1600A		MX416233

MCCB MX Size 4, 3 Pole, 70kA



MX480332

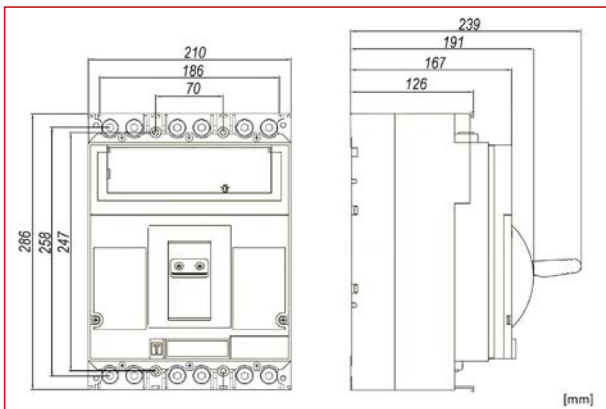
Schrack-Info

- For system and line protection
- Adjustable overload release 0.4 - 1 x I_n
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 70kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 800A to 1600A

Technical Data

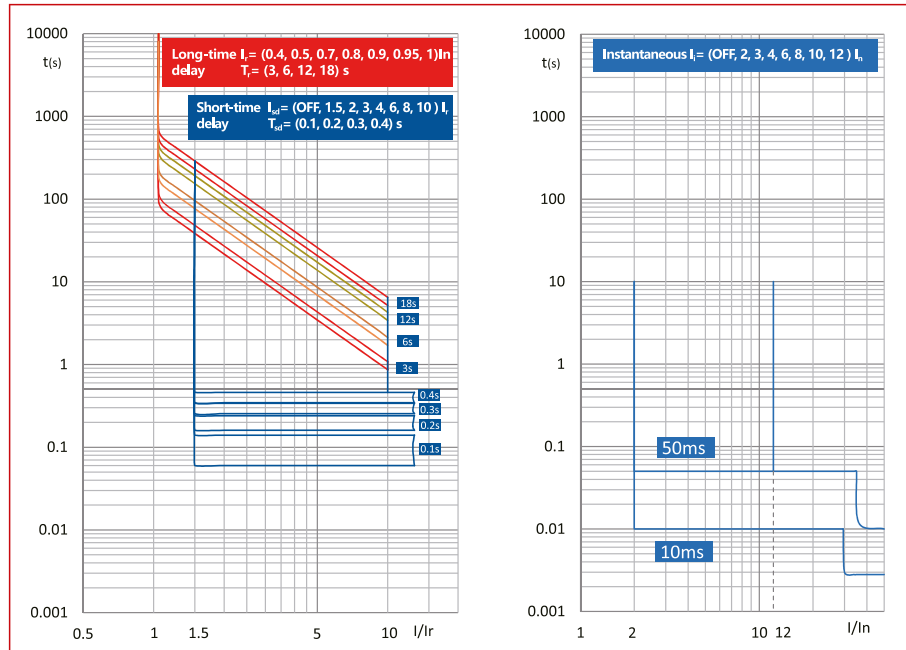
Size type		4
Poles		3
Rated operating current		800 - 1600A
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		70kA
Release		Electronic release - Type EN Digital electronic release - Type EM
Rated insulation voltage U _i		1000V
Rated impulse withstand voltage U _{imp}		8kV
Rated ultimate short-circuit breaking capacity I _{cu}	AC 380/400/415V	70kA
	AC 440V	65kA
	AC 500V	50kA
	AC 660/690V	30kA
Rated service breaking capacity I _{cs}	AC 380/400/415V	70kA
	AC 440V	50kA
	AC 500V	40kA
	AC 660/690V	30kA
Rated short-time withstand current I _{cw} (1s)		20kA
Pollution degree		3
IP Rating		IP40
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability		6000 operation cycles
Electrical endurance	AC 415V, I _n	1000 operation cycles
	AC 690V, I _n	1000 operation cycles
Net weight		13.5kg

Dimensions

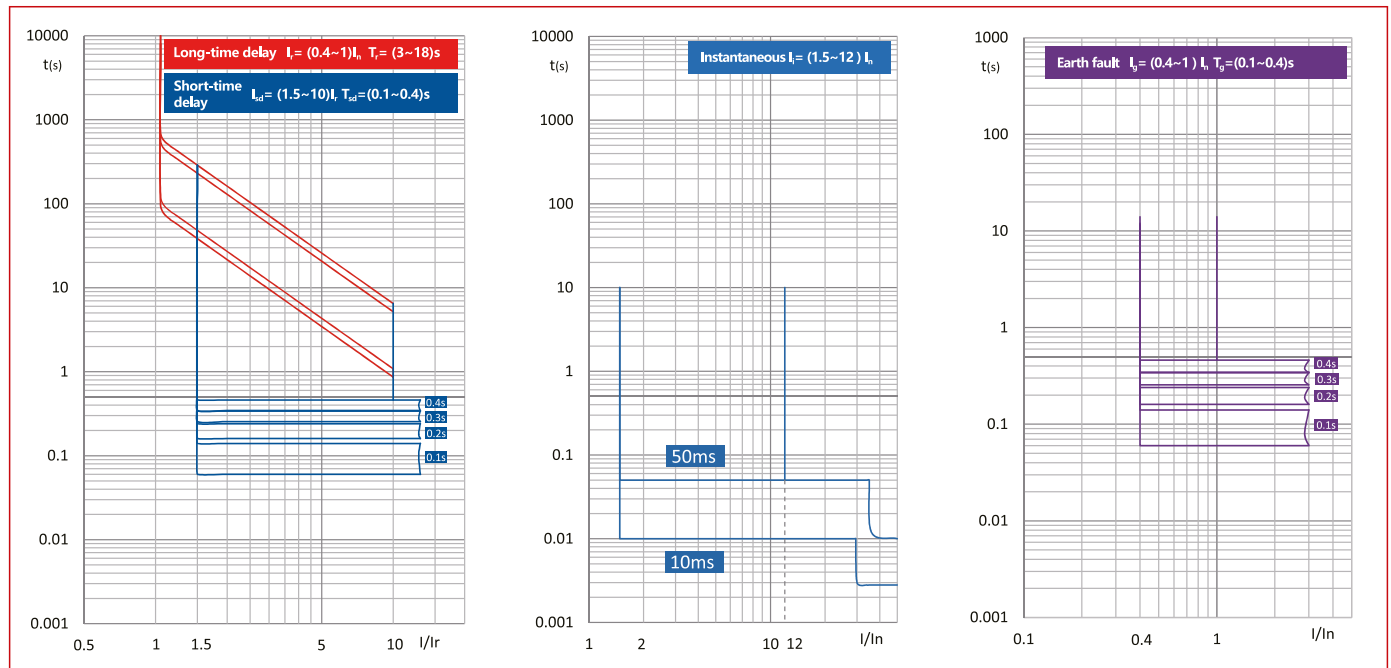


MCCB MX Size 4, 3 Pole, 70kA

Tripping Characteristic: Type EN



Tripping Characteristic: Type EM



DESCRIPTION	AVAILABLE	ORDER NO.
800 to 1600A with Electronic Release Unit		
Moulded Case Circuit Breaker Type EN, 3 pole, 70kA, 800A		MX480332
Moulded Case Circuit Breaker Type EN, 3 pole, 70kA, 1000A		MX410332
Moulded Case Circuit Breaker Type EN, 3 pole, 70kA, 1250A		MX412332
Moulded Case Circuit Breaker Type EN, 3 pole, 70kA, 1600A		MX416332
800 to 1600A with Digital Electronic Release Unit		
Moulded Case Circuit Breaker Type EM, 3 pole, 70kA, 800A		MX480333
Moulded Case Circuit Breaker Type EM, 3 pole, 70kA, 1000A		MX410333
Moulded Case Circuit Breaker Type EM, 3 pole, 70kA, 1250A		MX412333
Moulded Case Circuit Breaker Type EM, 3 pole, 70kA, 1600A		MX416333

MCCB MX Size 4, 4 Pole, 50kA



MX480242

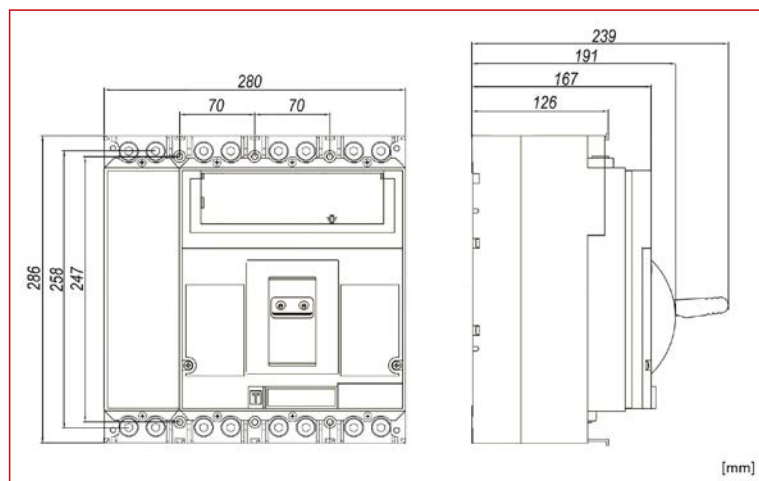
Schrack-Info

- For system and line protection
- Adjustable overload release 0.4 - 1 x I_n
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 50kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 800A to 1600A

Technical Data

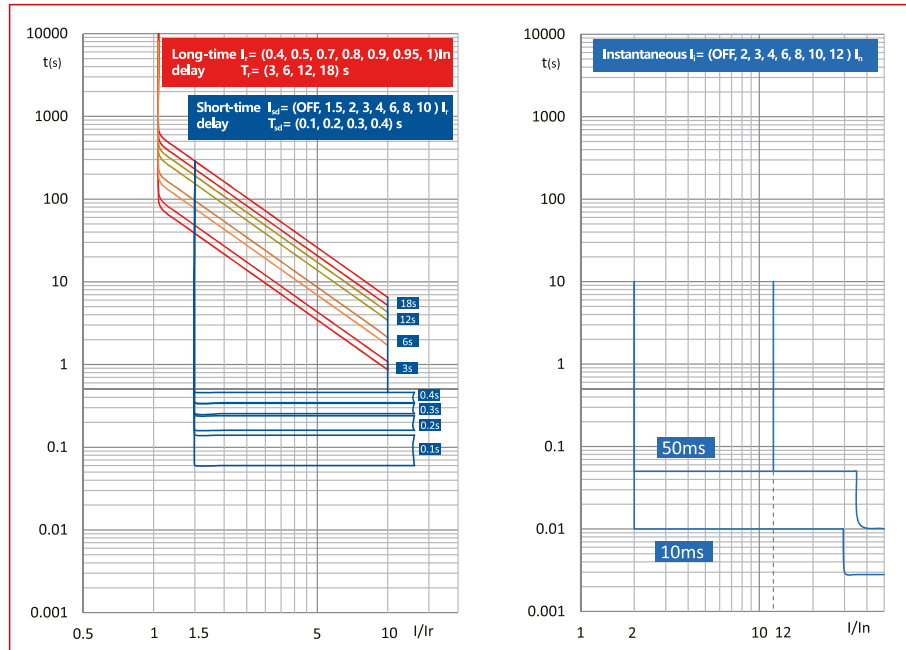
Size type		4
Poles		4
Rated operating current		800 - 1600A
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		50kA
Release		Electronic release - Type EN Digital electronic release - Type EM
Rated insulation voltage U _i		1000V
Rated impulse withstand voltage U _{imp}		8kV
Rated ultimate short-circuit breaking capacity I _{cu}	AC 380/400/415V	50kA
	AC 440V	50kA
	AC 500V	40kA
	AC 660/690V	30kA
Rated service breaking capacity I _{cs}	AC 380/400/415V	50kA
	AC 440V	40kA
	AC 500V	30kA
	AC 660/690V	30kA
Rated short-time withstand current I _{cw} (1s)		20kA
Pollution degree		3
IP Rating		IP20
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability operation cycles		6000 operation cycles
Electrical endurance (operation cycles)	AC 415V, I _n	1000 operation cycles
	AC 690V, I _n	1000 operation cycles
Net weight		17.5kg

Dimensions

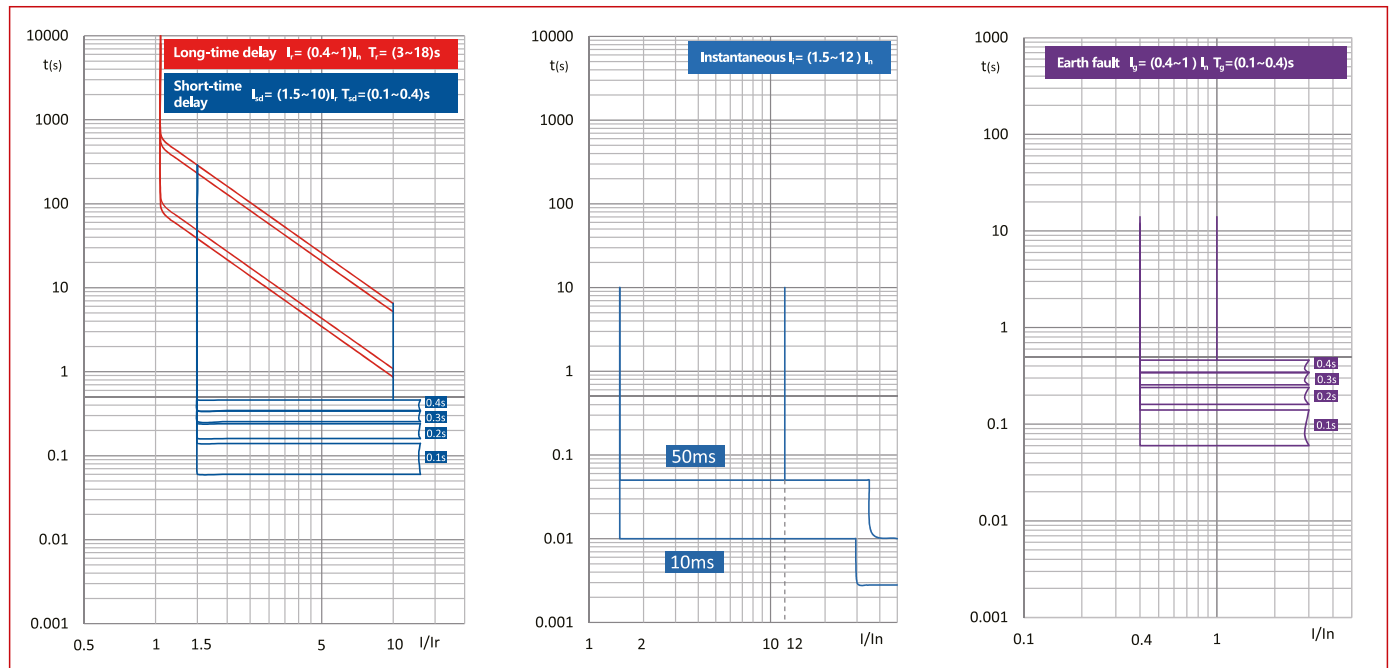


MCCB MX Size 4, 4 Pole, 50kA

Tripping Characteristic: Type EN



Tripping Characteristic: Type EM



DESCRIPTION	AVAILABLE	ORDER NO.
800 to 1600A with Electronic Release Unit		
Moulded Case Circuit Breaker Type EN, 4 pole, 50kA, 800A		MX480242
Moulded Case Circuit Breaker Type EN, 4 pole, 50kA, 1000A		MX410242
Moulded Case Circuit Breaker Type EN, 4 pole, 50kA, 1250A		MX412242
Moulded Case Circuit Breaker Type EN, 4 pole, 50kA, 1600A		MX416242
800 to 1600A with Digital Electronic Release Unit		
Moulded Case Circuit Breaker Type EM, 4 pole, 50kA, 800A		MX480243
Moulded Case Circuit Breaker Type EM, 4 pole, 50kA, 1000A		MX410243
Moulded Case Circuit Breaker Type EM, 4 pole, 50kA, 1250A		MX412243
Moulded Case Circuit Breaker Type EM, 4 pole, 50kA, 1600A		MX416243

MCCB MX Size 4, 4 Pole, 70kA



MX480342

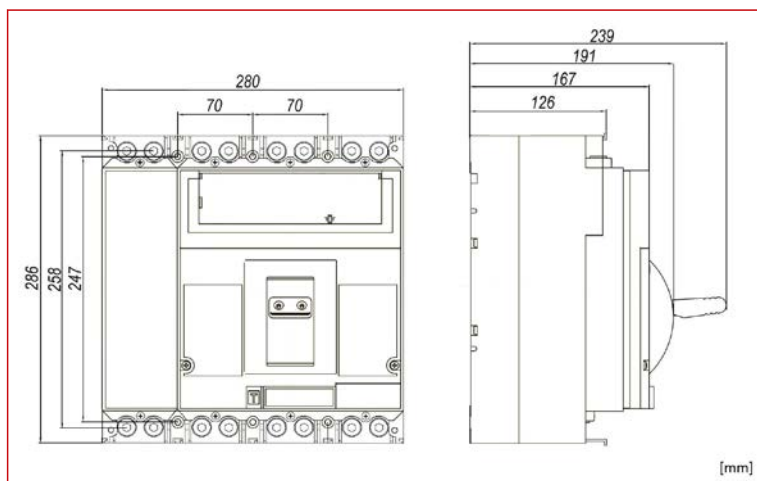
Schrack-Info

- For system and line protection
- Adjustable overload release 0.4 - 1 x I_n
- Adjustable short circuit release
- Screw connections standard, box terminals as option
- Switching capacity 70kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated current 800A to 1600A

Technical Data

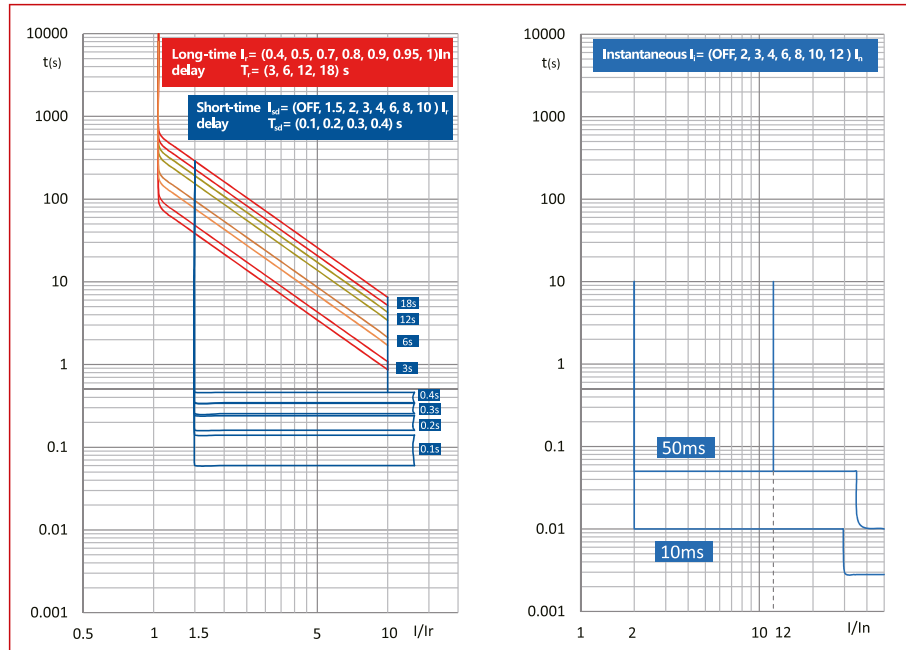
Size type		4
Poles		4
Rated operating current		800 - 1600A
Rated operational voltage		≤690VAC
Short circuit switching capacity (400V)		70kA
Release		Electronic release - Type EN Digital electronic release - Type EM
Rated insulation voltage U _i		1000V
Rated impulse withstand voltage U _{imp}		8kV
Rated ultimate short-circuit breaking capacity I _{cu}	AC 380/400/415V	70kA
	AC 440V	65kA
	AC 500V	50kA
	AC 660/690V	30kA
Rated service breaking capacity I _{cs}	AC 380/400/415V	70kA
	AC 440V	50kA
	AC 500V	40kA
	AC 660/690V	30kA
Rated short-time withstand current I _{cw} (1s)		20kA
Pollution degree		3
IP Rating		IP20
Min. ambient temperature		-40°C
Max. ambient temperature		70°C
Mechanical durability		6000 operation cycles
Electrical endurance	AC 415V, I _n	1000 operation cycles
	AC 690V, I _n	1000 operation cycles
Weight		17.5kg

Dimensions

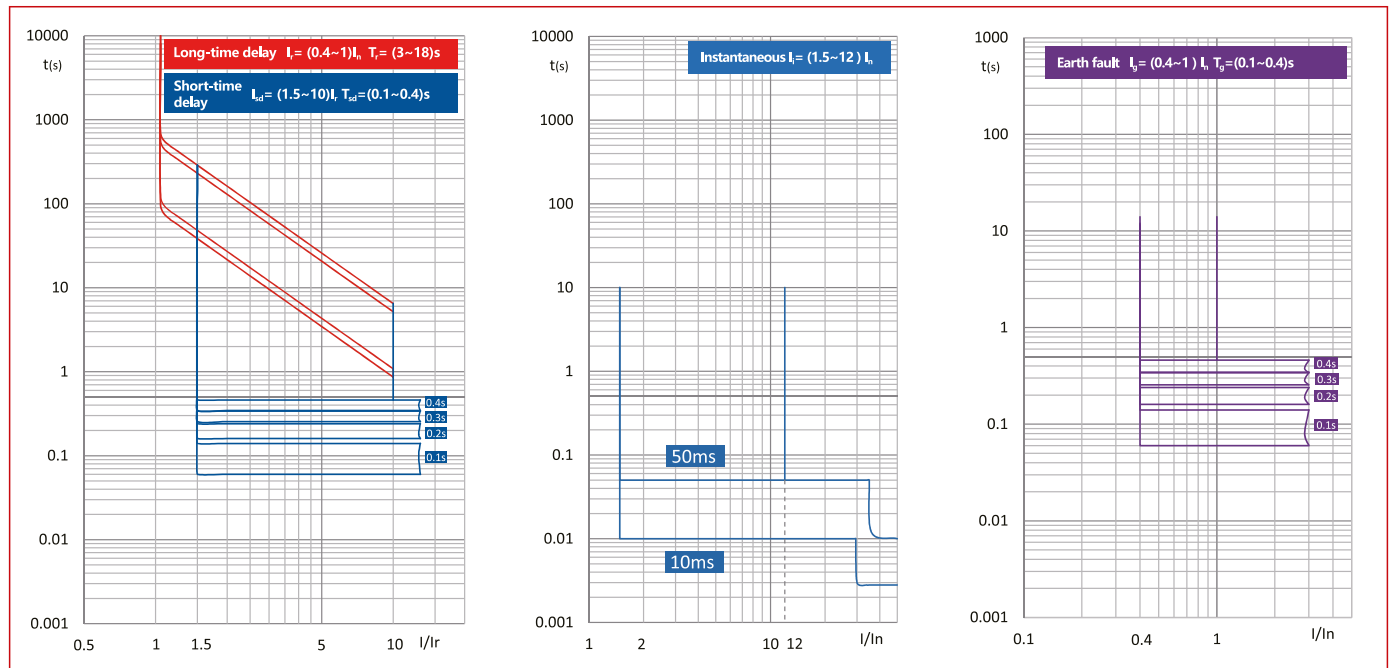


MCCB MX Size 4, 4 Pole, 70kA

Tripping Characteristic: Type EN



Tripping Characteristic: Type EM



DESCRIPTION	AVAILABLE	ORDER NO.
800 to 1600A with Electronic Release Unit		
Moulded Case Circuit Breaker Type EN, 4 pole, 70kA, 800A		MX480342
Moulded Case Circuit Breaker Type EN, 4 pole, 70kA, 1000A		MX410342
Moulded Case Circuit Breaker Type EN, 4 pole, 70kA, 1250A		MX412342
Moulded Case Circuit Breaker Type EN, 4 pole, 70kA, 1600A		MX416342
800 to 1600A with Digital Electronic Release Unit		
Moulded Case Circuit Breaker Type EM, 4 pole, 70kA, 800A		MX480343
Moulded Case Circuit Breaker Type EM, 4 pole, 70kA, 1000A		MX410343
Moulded Case Circuit Breaker Type EM, 4 pole, 70kA, 1250A		MX412343
Moulded Case Circuit Breaker Type EM, 4 pole, 70kA, 1600A		MX416343

MCCB MX Size 4, Selectivity table

Downstream	Upstream In(A)	MX4-A MCCB				MX4-EN, EM, ENM MCCB			
		800	1000	1250	1600	800	1000	1250	1600
AM MCB	≤10	T	T	T	T	T	T	T	T
	16	T	T	T	T	T	T	T	T
	20	T	T	T	T	T	T	T	T
	25	T	T	T	T	T	T	T	T
	32	T	T	T	T	T	T	T	T
	40	T	T	T	T	T	T	T	T
	50	T	T	T	T	T	T	T	T
	63	T	T	T	T	T	T	T	T
AK RCBO 1+N	≤10	T	T	T	T	T	T	T	T
	13	T	T	T	T	T	T	T	T
	16	T	T	T	T	T	T	T	T
	20	T	T	T	T	T	T	T	T
	25	T	T	T	T	T	T	T	T
	32	T	T	T	T	T	T	T	T
	40	T	T	T	T	T	T	T	T
	50	T	T	T	T	T	T	T	T
AK RCBO 3+N	≤10	T	T	T	T	T	T	T	T
	13	T	T	T	T	T	T	T	T
	16	T	T	T	T	T	T	T	T
	20	T	T	T	T	T	T	T	T
	25	T	T	T	T	T	T	T	T
	32	T	T	T	T	T	T	T	T
	40	T	T	T	T	T	T	T	T
	50	T	T	T	T	T	T	T	T
AM_{xxx}5_{xx} MCB 1+N/ 1TE	≤10	T	T	T	T	T	T	T	T
	16	T	T	T	T	T	T	T	T
	20	T	T	T	T	T	T	T	T
	25	T	T	T	T	T	T	T	T
	32	T	T	T	T	T	T	T	T
	40	T	T	T	T	T	T	T	T
MX1 MCCB	16	T	T	T	T	T	T	T	T
	20	T	T	T	T	T	T	T	T
	25	T	T	T	T	T	T	T	T
	32	T	T	T	T	T	T	T	T
	40	T	T	T	T	T	T	T	T
	50	T	T	T	T	T	T	T	T
	63	T	T	T	T	T	T	T	T
	80	T	T	T	T	T	T	T	T
	100	T	T	T	T	T	T	T	T
	125	T	T	T	T	T	T	T	T
MX2-A MCCB	125	T	T	T	T	T	T	T	T
	160	T	T	T	T	T	T	T	T
	180	T	T	T	T	T	T	T	T
	200	T	T	T	T	T	T	T	T
	225	T	T	T	T	T	T	T	T
	250	T	T	T	T	T	T	T	T
MX2-EN, EM, ENM MCCB	32	T	T	T	T	T	T	T	T
	63	T	T	T	T	T	T	T	T
	100	T	T	T	T	T	T	T	T
	160	T	T	T	T	T	T	T	T
	250	T	T	T	T	T	T	T	T
MX3-A MCCB	250	9.5kA	12kA	15kA	19kA	9.5kA	12kA	15kA	19kA
	315	9.5kA	12kA	15kA	19kA	9.5kA	12kA	15kA	19kA
	350	9.5kA	12kA	15kA	19kA	9.5kA	12kA	15kA	19kA
	400	9.5kA	12kA	15kA	19kA	9.5kA	12kA	15kA	19kA
	500	9.5kA	9.5kA	1.25kA	1.6kA	9.5kA	9.5kA	1.25kA	1.6kA
MX3-EN, EM, ENM MCCB	250	9.5kA	12kA	15kA	19kA	9.5kA	12kA	15kA	19kA
	400	9.5kA	12kA	15kA	19kA	9.5kA	12kA	15kA	19kA
	630	-	9.5kA	1.25kA	1.6kA	-	9.5kA	1.25kA	1.6kA

Notes:

- 1) No content, indicating no selectivity.
- 2) 1kA, indicating local selectivity, the number indicates the maximum fault current to achieve selectivity. For example, selectivity can be achieved below 1kA, and above 1kA upper and lower level circuit breakers may act simultaneously.
- 3) T, indicates that the full selectivity is satisfied within the breaking capacity of the lower level circuit breaker.

MCCB MX Size 4 - Accessories



MX490017



MX490154



MX496730



MX499471

Schrack-Info

Wide range of accessories:

- Auxiliary contacts
- Under voltage release units, shunt-trips
- Connection accessories
- General accessories

Installation Diagram for Accessories

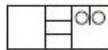
Alarm contact



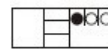
Shunt trip, alarm contact



Auxiliary contact



Auxiliary contact, alarm contact



Shunt trip



Under-voltage release, alarm contact



Under-voltage release



Shunt trip, auxiliary contact, alarm contact



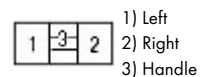
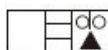
Shunt trip, auxiliary contact



Under-voltage release, auxiliary contact, alarm contact



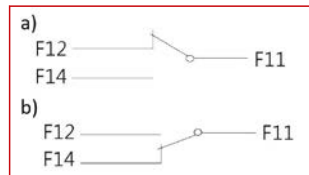
Auxiliary contact, under-voltage release



- Shunt trip
- ▲ Under-voltage release
- Auxiliary contact
- Alarm contact

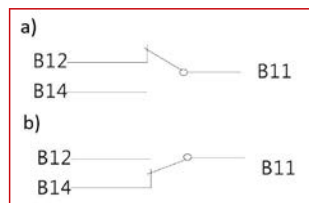
-) MX4 cannot be equipped with undervoltage release and shunt release at the same time;
-) MX4 can be equipped with a maximum of 3 auxiliary contacts
-) MX series can only be equipped with one alarm contact

Auxiliary Contact: Indication of Circuit Breaker Status



- a) Circuit breaker is at breaking status
- b) Circuit breaker is at making status

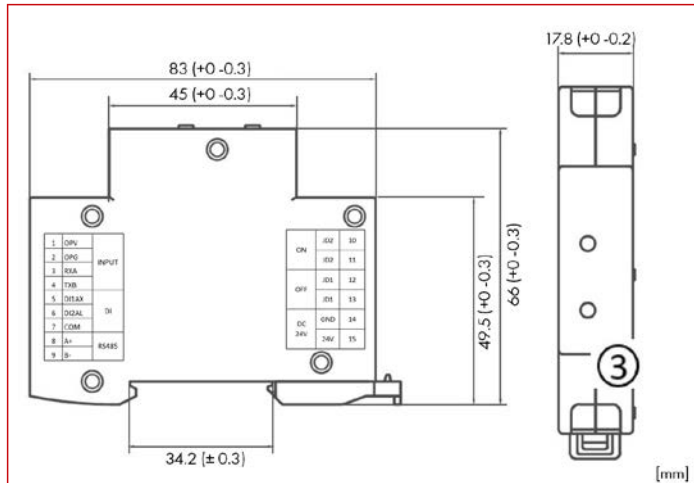
Alarm Contact: Indication of Circuit Breaker Status



- a) Circuit breaker is at breaking or making status
- b) Circuit breaker is at free tripping status

MCCB MX Size 4 - Accessories

Communication Module

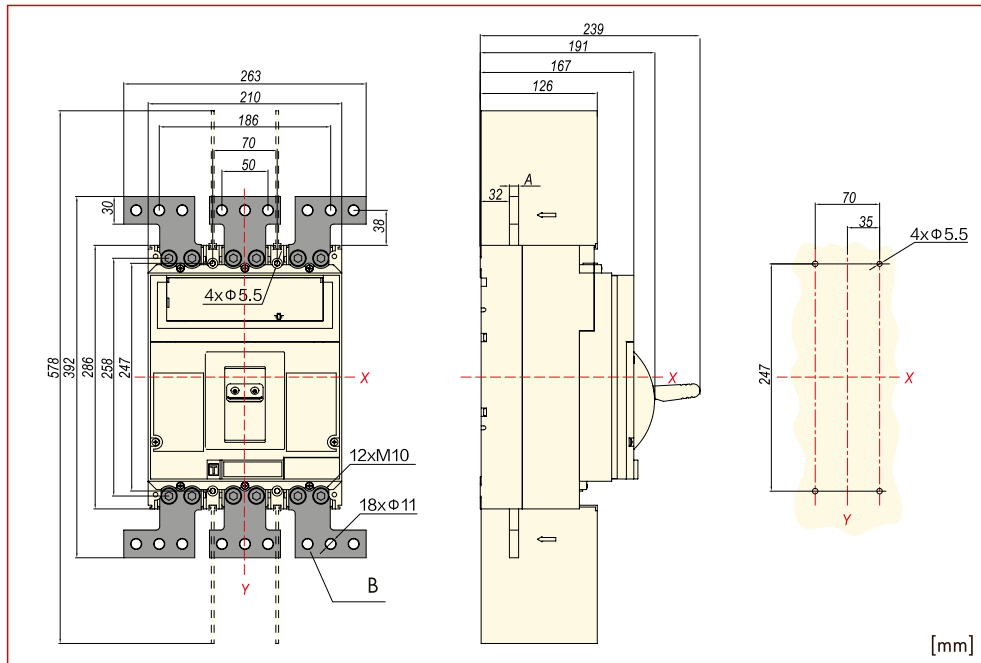


The communication module is an interface module for communication between the electronic trigger of the circuit breakers and the bus system and takes over the communication and output of the remote control via relay contacts.

- Rated voltage: AC230V or DC24V (fault range $\pm 15\%$)
- Communication type: RS485 (Modbus RTU protocol)
- Contact capacity: AC250V/3A; DC30V / 3A
- Transmission medium: shielded twisted cable
- Transmission distance: 1.2 km (with shielded twisted pair of category A)
- Display of operating status: LED display
- Number of stations: 1 station

INPUT	1	OPV	15V output, connection to controller 15V input
INPUT	2	OPG	GND, connect to controller GND
INPUT	3	RXA	RS485 Bus A, connection to controller RS485A
INPUT	4	TXB	RS485 Bus B, connection to controller RS485B
DI	5	DI1 (AX)	Auxiliary signal input, connection to AX PIN 4 auxiliary module
DI	6	DI2 (AL)	Alarm signal input, connection to alarm module AL PIN 4
DI	7	COM	Common terminal, connection to AX, AL, PIN 1
RS485	8	A+	RS485 Bus A, connection to external RS485 Bus A
RS485	9	B-	RS485 Bus B, connection to external RS485 Bus B
ON	10	JD2	Relay output, connection with motor drive for switching on
ON	11	JD2	Relay output, connection with motor drive for switching on
OFF	12	JD1	Relay output, connection with motor drive for switching off
OFF	13	JD1	Relay output, connection with motor drive for switching off
DC24V	14	GND	Supply voltage GND (DC24V model)
DC24V	15	24V	Supply voltage GND (DC24V model)
AC230	14	N	Supply voltage 230V (AC230V model)
AC230	15	L	Supply voltage 230V (AC230V model)

Connection Extension 3-Pole for MX4, 1000-1250A

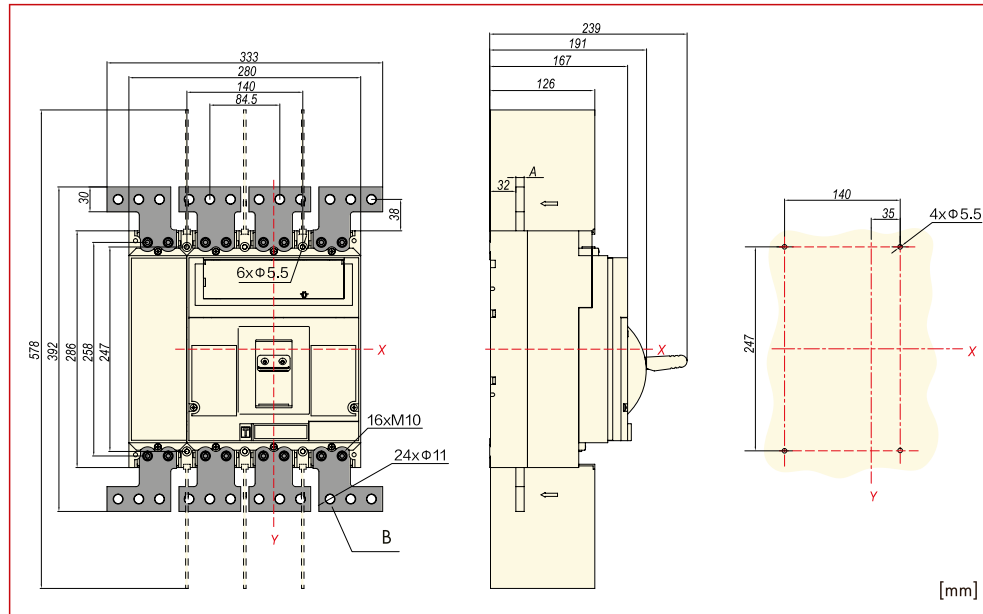


A	Top view
B	Connection extension
X	Horizontal centre
Y	Vertical centre

Allows for a more flexible connection. Installation allows the distance between adjacent poles at the inputs and outputs of the circuit breaker to be increased.

MCCB MX Size 4 - Accessories

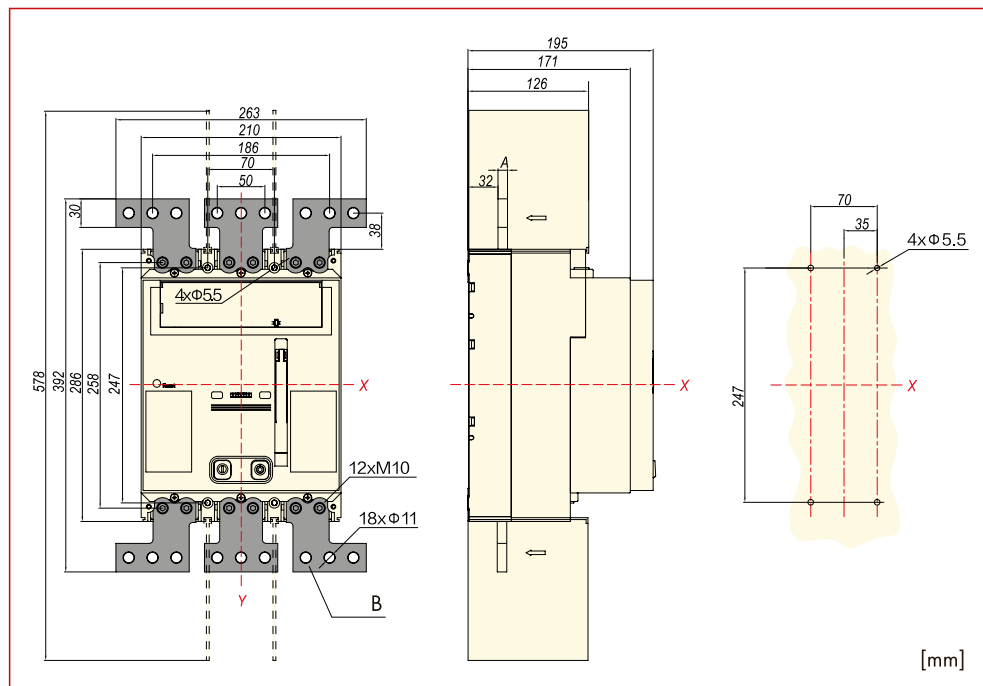
Connection Extension 4-Pole for MX4, 1000-1250A



A	Top view
B	Connection extension
X	Horizontal centre
Y	Vertical centre

Allows for a more flexible connection. Installation allows the distance between adjacent poles at the inputs and outputs of the circuit breaker to be increased.

Connection Extension 3-Pole for MX4, 1600A

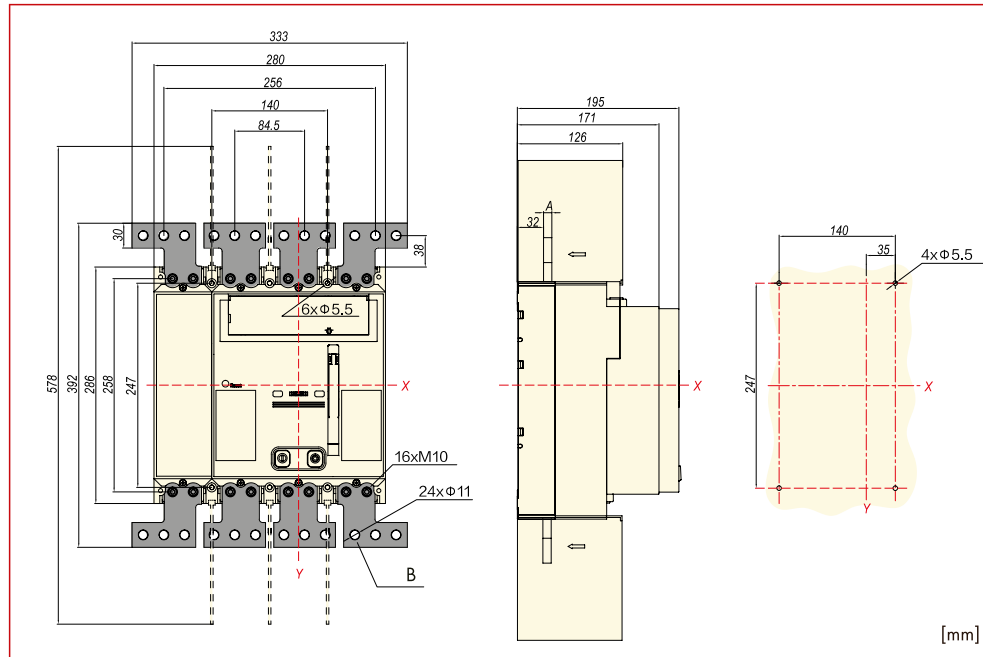


A	Top view
B	Connection extension
X	Horizontal centre
Y	Vertical centre

Allows for a more flexible connection. Installation allows the distance between adjacent poles at the inputs and outputs of the circuit breaker to be increased.

MCCB MX Size 4 - Accessories

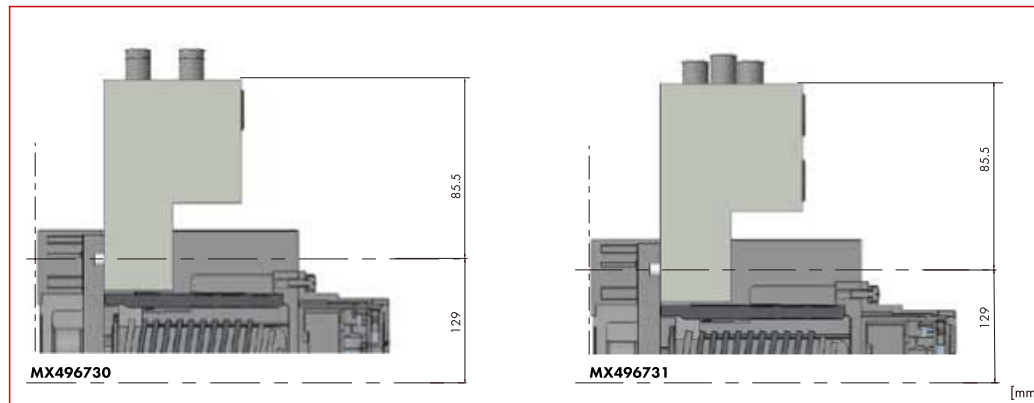
Connection Extension 4-Pole for MX4, 1600A



A	Top view
B	Connection extension
X	Horizontal centre
Y	Vertical centre

Allows for a more flexible connection. Installation allows the distance between adjacent poles at the inputs and outputs of the circuit breaker to be increased.

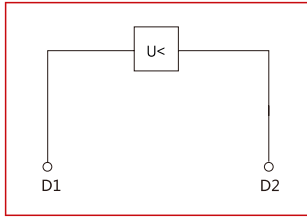
Tunnel Terminal for MX4 3X95-300mm²/4X95-240mm²



Suitable for aluminum and Cu conductors. Allows the direct connection of bare conductors.

■ MCCB MX Size 4 - Accessories

■ Under Voltage Release for MX4



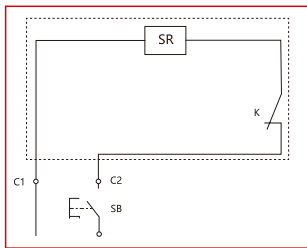
Immediate triggering of circuit breakers or switch disconnectors when the supply voltage drops below 35% - 70%.

Can be used for EMERGENCY STOP devices. Installed in the circuit breaker.

Is built into the circuit breaker.


















If the undervoltage trigger is de-energized, contacting the switch main contacts during switch-on tests is safely prevented.

■ Shunt Trip for MX4



Immediate triggering of circuit breakers or switch disconnectors at voltage pulse or application of continuous voltage in the range of 70% to 110% of the rated control voltage. If the working current trigger is live, contacting the switch main contacts during switch-on tests is reliably prevented.

 MCCB MX Size 4 - Accessories

DESCRIPTION	AVAILABLE	ORDER NO.
General Accessories		
Communication module Modbus-RTU 24VDC 1.5m		MX290000
Communication module Modbus-RTU 230VAC 1.5m		MX290001
Battery Box for MX Molded Case Circuit Breaker Typ EN,ENM,EM		MXBAT001
Connecting Technic, Accessories		
Connection extension 3 pole for MX4, 1000-1250A, 6 pieces		MX490017
Connection extension 4 pole for MX4, 1000-1250A, 8 pieces		MX490018
Connection extension 3 pole for MX4, 1600A, 6 pieces		MX490019
Connection extension 4 pole for MX4, 1600A, 8 pieces		MX490020
Tunnel Terminal 3x95-300mm ² for MX4, 800-1250A, 1 piece		MX496730
Tunnel Terminal 4x95-240mm ² for MX4, 800-1250A, 1 piece		MX496731
Phase separator plates MX4		MX496870
Under Voltage Release Units, Shunt-trips and Accessories		
Under Voltage Release 220-240VAC for MX4		MX499471
Under Voltage Release 380-415VAC for MX4		MX499473
Shunt trip 220-240VAC for MX4		MX490154
Shunt trip 380-415VAC for MX4		MX491607
Shunt trip 24VDC for MX4		MX499736
Auxiliary Contacts		
Auxiliary contact 1 CO		MX199411
Alarm contact 1 CO		MX199511



On stock, usually ready for delivery on the day of order

Load Switches MX Size 1



Load Switches MX Size 1



Load Switches MX Size 2



Load Switches MX Size 3



Load Switches MX Size 3



Load Switches MX Size 4



Load Switches MX, Fix Installed

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Load Switches MX Size 1	Page 100
Load Switches MX Size 2	Page 112
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Load Switches MX Size 1, 3 Pole



MX112035

Schrack-Info

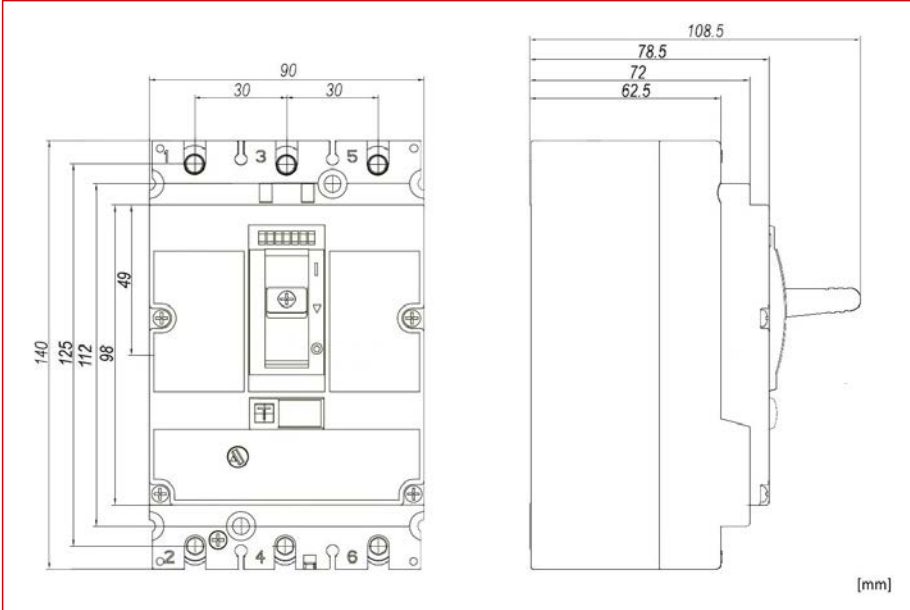
- Load Switches without release unit
- Screw connections standard, box terminals as option
- Retrofittable with auxiliary contacts, undervoltage and shunt release
- Rated short-circuit making capacity $I_{cm} = 3.2\text{kA}$ at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated operational current 125A

Technical Data

Size type		1	
Poles		3	
Conventional thermal current I_{th} 40°C		125A	
Rated operating current I_e		125A	
Rated operating voltage		≤690VAC	
Rated insulation voltage U_i		1000V	
Rated impulse withstand voltage U_{imp}		8kV	
Rated short-circuit making capacity I_{cm}		3.2kA	
Rated short-time withstand current I_{cw}	1 s / 3s	2kA / 2kA	
Utilization category		AC-22A/AC-23A	
Min. ambient temperature		-40°C	
Max. ambient temperature		70°C	
Arcing distance		0	
Mechanical durability		15000 operation cycles	
Electrical endurance	AC 415V, I_n	8000 operation cycles	
	AC 690V, I_n	2000 operation cycles	
Mounting and connection	Fixed	Front connection	•
		Rear connection	•
	Plug-in	Front connection	•
		Rear connection	•
	Draw-out	Front connection	-
		Rear connection	-
DIN rail	Front connection	•	
Net weight		1.05kg	

Load Switches MX Size 1, 3 Pole

Dimensions



DESCRIPTION	AVAILABLE	ORDER NO.
to 125A load switches, remote releasable		
Switch Disconnector MX1 3 pole 125A		MX112035



On stock, usually ready for delivery on the day of order

Load Switches MX Size 1, 4 Pole



MX112045

Schrack-Info

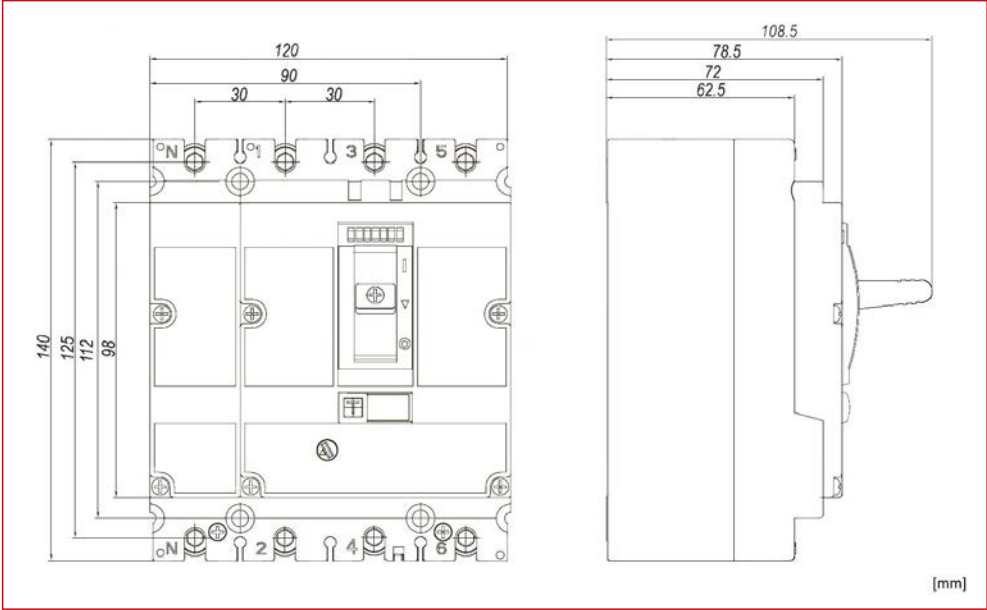
- Load Switches without release unit
- Screw connections standard, box terminals as option
- Retrofittable with auxiliary contacts, undervoltage and shunt release
- Rated short-circuit making capacity $I_{cm} = 3.2\text{kA}$ at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated operational current 125A


Technical Data

Size type		1	
Poles		4	
Conventional thermal current I_{th} 40°C		125A	
Rated operating current I_e		125A	
Rated operating voltage		≤690VAC	
Rated insulation voltage U_i		1000V	
Rated impulse withstand voltage U_{imp}		8kV	
Rated short-circuit making capacity I_{cm}		3.2kA	
Rated short-time withstand current I_{cw}	1 s / 3s	2kA / 2kA	
Utilization category		AC-22A/AC-23A	
Min. ambient temperature		-40°C	
Max. ambient temperature		70°C	
Arcing distance		0	
Mechanical durability		15000 operation cycles	
Electrical endurance	AC 415V, I_n	8000 operation cycles	
	AC 690V, I_n	2000 operation cycles	
Mounting and connection	Fixed	Front connection	•
		Rear connection	•
	Plug-in	Front connection	•
		Rear connection	•
	Draw-out	Front connection	-
		Rear connection	-
DIN rail	Front connection	•	
Net weight		1.5kg	

Load Switches MX Size 1, 4 Pole

Dimensions



DESCRIPTION	AVAILABLE	ORDER NO.
to 125A load switches, remote releasable		
Switch Disconnector MX1 4 pole 125A		MX112045



On stock, usually ready for delivery on the day of order

Load Switches MX Size 1 - Accessories



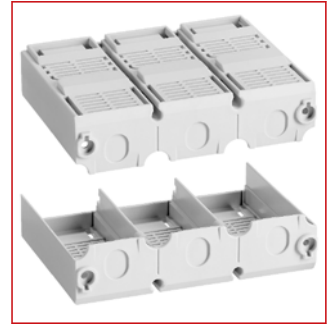
MX190015



MX190125



MX190172



MX190780



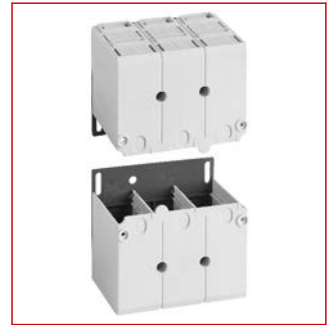
MX196730



MX199832



MX199471



MX190783

Schrack-Info

Wide range of accessories

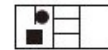
- Auxiliary contacts
- Under voltage release units, shunt-trips
- Connection accessories
- General accessories

Installation Diagram for Accessories

Alarm contact



Shunt trip, alarm contact



Auxiliary contact



Auxiliary contact, alarm contact



Shunt trip



Under-voltage release, alarm contact



Under-voltage release



Shunt trip, auxiliary contact, alarm contact



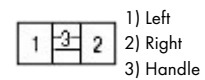
Shunt trip, auxiliary contact



Under-voltage release, auxiliary contact, alarm contact



Auxiliary contact, under-voltage release



1) Left

2) Right

3) Handle

■ Shunt trip

▲ Under-voltage release

○ Auxiliary contact

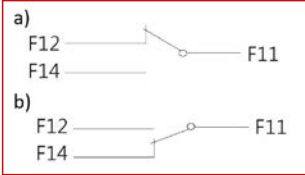
● Alarm contact

-) MX1 cannot be equipped with undervoltage release and shunt release at the same time

-) MX1 can be equipped with a maximum of 2 auxiliary contacts

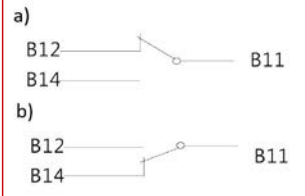
Load Switches MX Size 1 - Accessories

Auxiliary Contact: Indication of Circuit Breaker Status



- a) Circuit breaker is at breaking status
- b) Circuit breaker is at making status

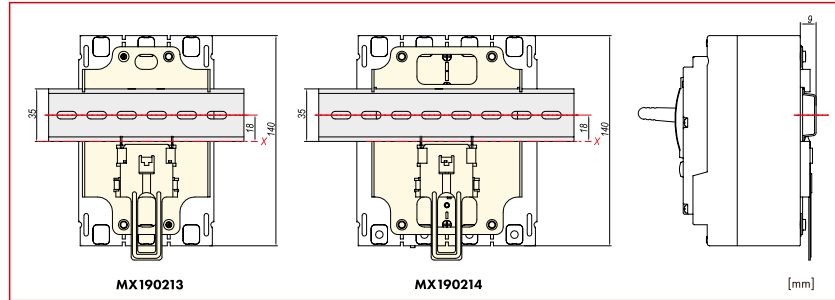
Alarm Contact: Indication of Circuit Breaker Status



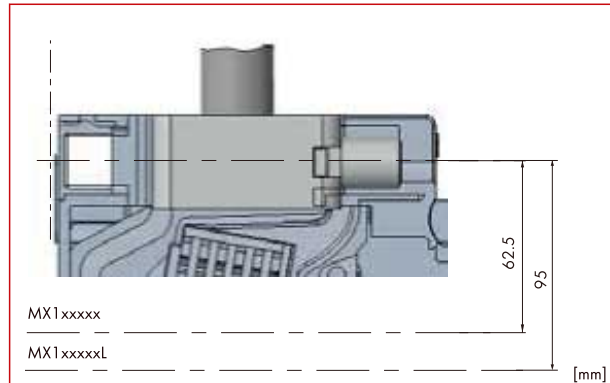
- a) Circuit breaker is at breaking or making status
- b) Circuit breaker is at free tripping status

Load Switches MX Size 1 - Accessories

Clip Plate for MX1 3- and 4 Pole

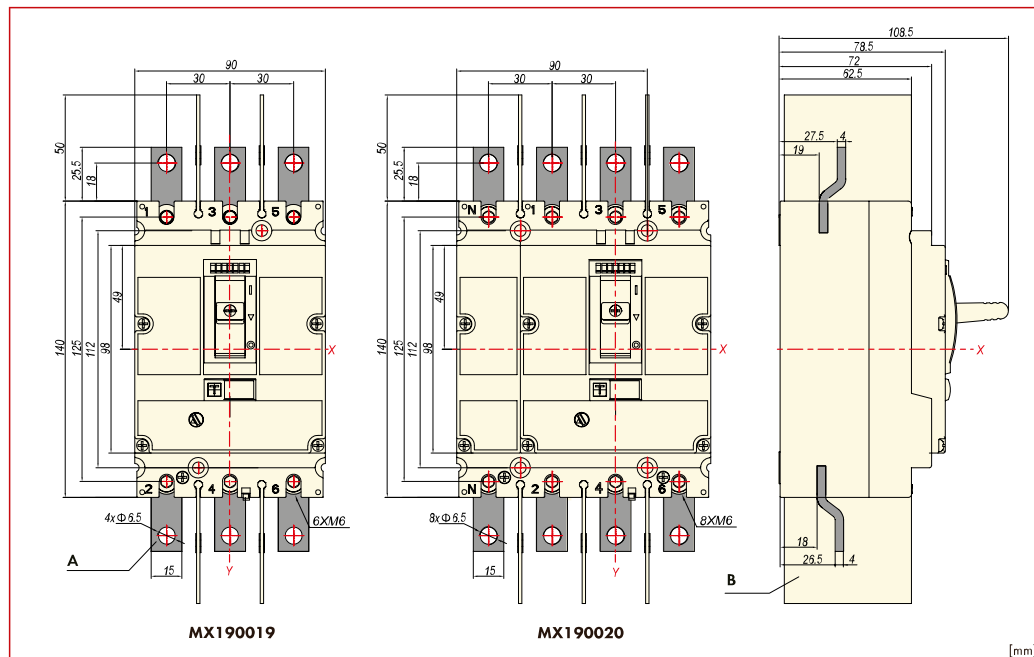


Box Terminal for MX1



Suitable for aluminum and Cu conductors.
It enables the direct connection of bare conductors

Connection Extension for MX1 3- and 4 Pole

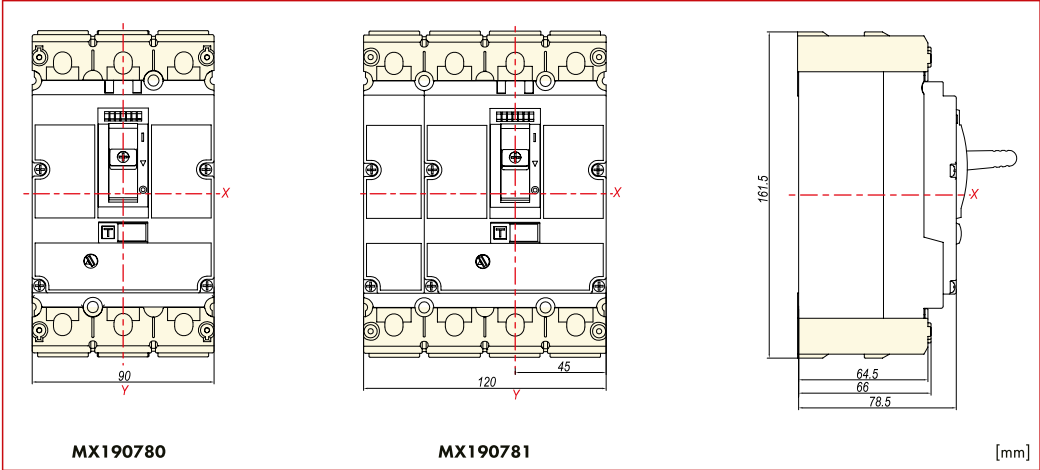


A	Top view
B	Phase separator
X	Horizontal centre
Y	Vertical centre

Allows for a more flexible connection. Installation allows the distance between adjacent poles at the inputs and outputs of the circuit breaker to be increased.

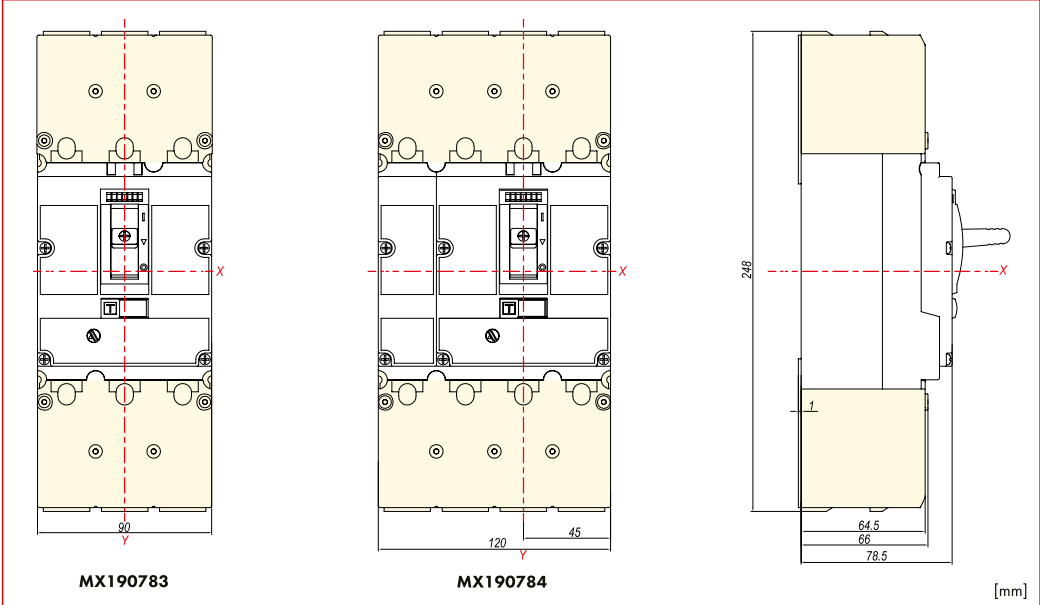
Load Switches MX Size 1 - Accessories

Terminal Cover Short for MX1 3- and 4 Pole



Protection class: IP40
Serves to protect the contacts against contact and also serves as phase separation.
If the voltage exceeds 500V, the terminal cover must be used.

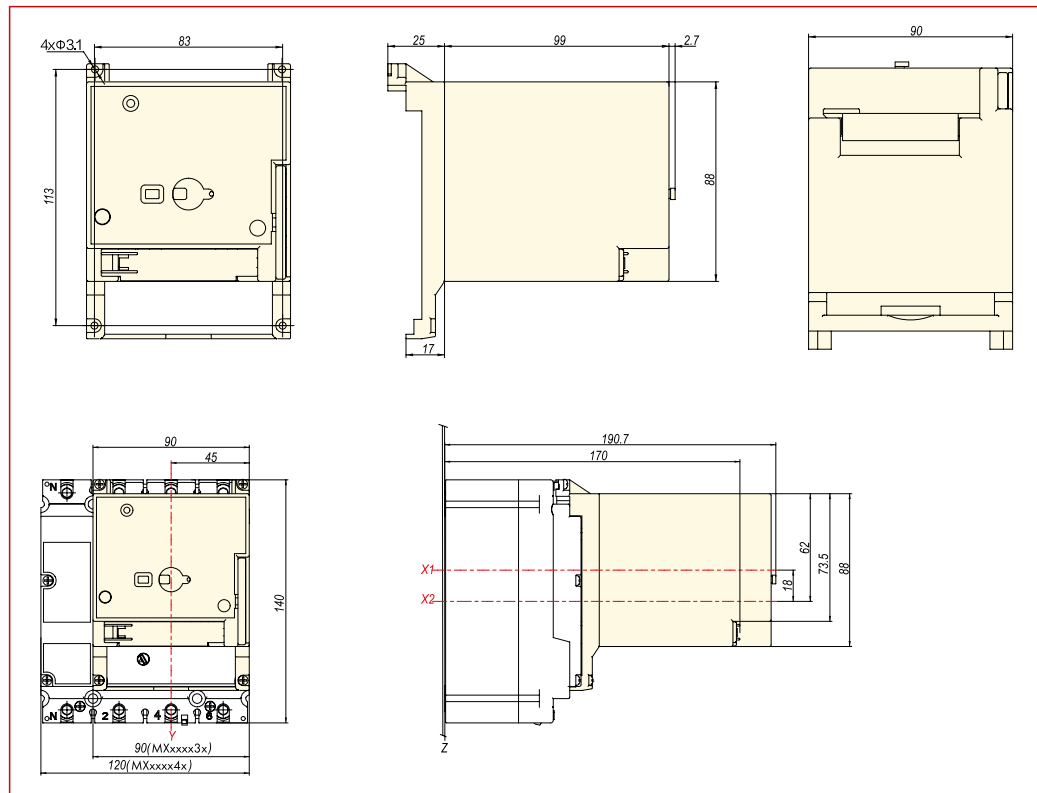
Terminal Cover Long for MX1 3- and 4 Pole



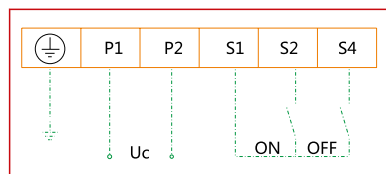
Protection class: IP40
Serves to protect the contacts against contact and also serves as phase separation.
If the voltage exceeds 500V, the terminal cover must be used.

Load Switches MX Size 1 - Accessories

Remote Operator for MX1



X1	Horizontal centre remote operator
X2	Horizontal centre switch
Y	Vertical centre

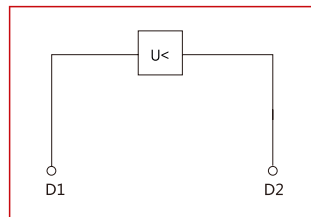


It is suitable for closing, opening and reclosing circuit breakers over long distances, as well as for automation applications.

- Protection class: IP40
- Display 0, I and tripped in 3 positions
- Switching between automatic and manual operation
- Automatic switching via electrical control inputs.
- Manual switching via switching key.
- When control voltage is between 85% and 110%, the circuit-breaker can be reliably switched on and off.

Load Switches MX Size 1 - Accessories

Under Voltage Release for MX1



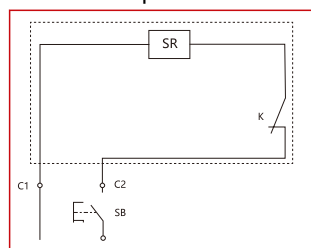
Instantaneous tripping of circuit breakers or switch-disconnectors when the supply voltage drops below 35% - 70%.

Can be used with EMERGENCY STOP devices.

Is installed in the circuit breaker.









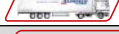






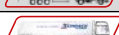
















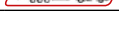


When the undervoltage release is de-energised, contacting of the breaker main contacts is reliably prevented during closing attempts.

Shunt Trip for MX1



Instantaneous tripping of circuit-breaker or switch-disconnector on voltage pulse or application of continuous voltage in the range of 70% to 110% of the rated control voltage. If the shunt release is live, contacting of the breaker main contacts is reliably prevented during closing attempts.

 Load Switches MX Size 1 - Accessories

DESCRIPTION	AVAILABLE	ORDER NO.
General accessories		
Toggle Lever Locking Device for MX1		MX190199
Clip Plate 35mm DIN-S for MX1 3 pole		MX190213
Clip Plate 35mm DIN-S for MX1 4 pole		MX190214
Connecting technic, accessories		
Box Terminal for MX1 2.5-75mm ² , 1 piece		MX190015
Connection extension 3 pole for MX1, 6 pieces		MX190019
Connection extension 4 pole for MX1, 8 pieces		MX190020
Terminal Cover short 3 pole for MX1		MX190780
Terminal Cover short 4 pole for MX1		MX190781
Terminal Cover long 3 pole for MX1		MX190783
Terminal Cover long 4 pole for MX1		MX190784
Tunnel Terminal 1x16-95mm ² for MX1, 1 piece		MX196730
Rear Connection, 3 pole for MX1		MX196734
Rear Connection, 4 pole for MX1		MX196735
Socket for MX1 3 pole		MX196871
Socket for MX1 4 pole		MX196872
Safety release for socket MX1		MX196873
Phase separator plates MX1		MX196870
Rotary handles, door coupling handles, accessories		
Mechanical Interlock for MX1 3 pole		MX191581
Mechanical Interlock for MX1 4 pole		MX191582
Undervoltage release units, shunt-trips and accessories		
Under Voltage Release 110VAC for MX1		MX199462
Under Voltage Release 220-240VAC for MX1		MX199471
Under Voltage Release 380-415VAC for MX1		MX199473
Under Voltage Release 24VDC for MX1		MX199481
Under Voltage Release 220VDC for MX1		MX199489
Shunt trip 110VAC for MX1		MX199567
Shunt trip 220-240VAC for MX1		MX190154
Shunt trip 380-415VAC for MX1		MX191607
Shunt trip 24VDC for MX1		MX199736
Shunt trip 220VDC for MX1		MX199742
Remote Operator 24VDC for MX1		MX199837
Remote Operator 110VAC/110-120VDC for MX1		MX199838
Remote Operator 220-240VAC/220VDC for MX1		MX199832
Remote Operator 380-415VAC for MX1		MX199833
Auxiliary contacts		
Auxiliary contact 1 CO		MX199411
Alarm contact 1 CO		MX199511



On stock, usually ready for delivery on the day of order

Load Switches MX Size 2, 3 Pole



MX225035

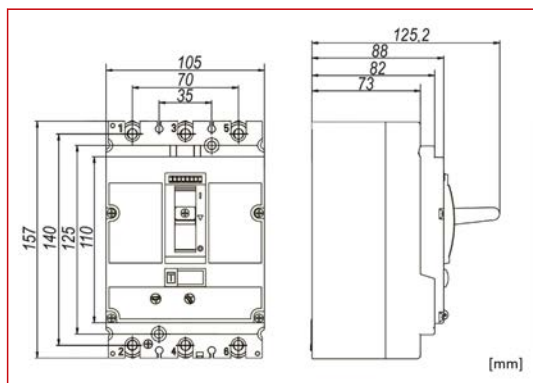
Schrack-Info

- Load Switches without release unit
- Screw connections standard, box terminals as option
- Retrofittable with auxiliary contacts, undervoltage and shunt release
- Rated short-circuit making capacity $I_{cm} = 5kA$ at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated operational current 250A

Technical Data

Size type		2	
Poles		3	
Conventional thermal current I_{th} 40°C		250A	
Rated operating current I_e		250A	
Rated operating voltage		≤690VAC	
Rated insulation voltage U_i		1000V	
Rated impulse withstand voltage U_{imp}		8kV	
Rated short-circuit making capacity I_{cm}		5kA	
Rated short-time withstand current I_{cw}	1 s / 3s	3.2kA / 3.2kA	
Utilization category		AC-22A/AC-23A	
Min. ambient temperature		-40°C	
Max. ambient temperature		70°C	
Arcing distance		0	
Mechanical durability		15000 operation cycles	
Electrical endurance	AC 415V, I_n	6000 operation cycles	
	AC 690V, I_n	1500 operation cycles	
Mounting and connection	Fixed	Front connection	•
		Rear connection	•
	Plug-in	Front connection	•
		Rear connection	•
	Draw-out	Front connection	-
		Rear connection	-
DIN rail	Front connection	•	
Net weight		1.75kg	

Dimensions



DESCRIPTION	AVAILABLE	ORDER NO.
to 250A load switches, remote releasable		
Switch Disconnector MX2 3 pole 250A		MX225035

Load Switches MX Size 2, 4 Pole



MX225045

Schrack-Info

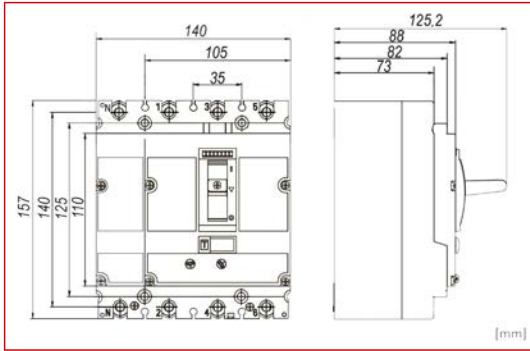
- Load Switches without release unit
- Screw connections standard, box terminals as option
- Retrofittable with auxiliary contacts, undervoltage and shunt release
- Rated short-circuit making capacity $I_{cm} = 5\text{ kA}$ at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated operational current 250A


Technical Data

Size type		2	
Poles		4	
Conventional thermal current I_{th} 40°C		250A	
Rated operating current I_e		250A	
Rated operating voltage		≤690VAC	
Rated insulation voltage U_i		1000V	
Rated impulse withstand voltage U_{imp}		8kV	
Rated short-circuit making capacity I_{cm}		5kA	
Rated short-time withstand current I_{cw}	1 s / 3s	3.2kA / 3.2kA	
Utilization category		AC-22A/AC-23A	
Min. ambient temperature		-40°C	
Max. ambient temperature		70°C	
Arcing distance		0	
Mechanical durability		15000 operation cycles	
Electrical endurance	AC 415V, I_n	6000 operation cycles	
	AC 690V, I_n	1500 operation cycles	
Mounting and connection	Fixed	Front connection	•
		Rear connection	•
	Plug-in	Front connection	•
		Rear connection	•
	Draw-out	Front connection	-
		Rear connection	-
DIN rail	Front connection	•	
Net weight		2.4kg	

Load Switches MX Size 2, 4 Pole

Dimensions



DESCRIPTION	AVAILABLE	ORDER NO.
to 250A load switches, remote releasable		
Switch Disconnector MX2 4 pole 250A		MX225045

Load Switches MX Size 2 - Accessories



MX290015



MX290125



MX290172



MX296732



MX299832



MX290199



MX299471



MX296731

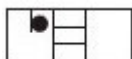
Schrack-Info

Wide range of accessories

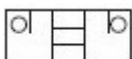
- Auxiliary contacts
- Rotary handles, door coupling handles
- Under voltage release units, shunt-trips
- Connection accessories
- General accessories

Installation Diagram for Accessories

Alarm contact



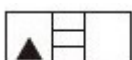
Auxiliary contact



Shunt trip



Under-voltage release



Shunt trip, auxiliary contact



Auxiliary contact, under-voltage release



Shunt trip, alarm contact



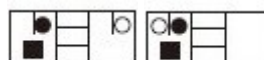
Auxiliary contact, alarm contact



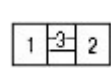
Under-voltage release, alarm contact



Shunt trip, auxiliary contact, alarm contact



Under-voltage release, auxiliary contact, alarm contact

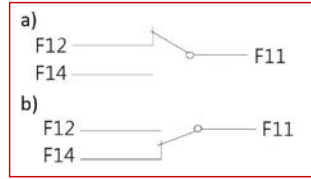


- 1) Left
- 2) Right
- 3) Handle
- Shunt trip
- ▲ Under-voltage release
- Auxiliary contact
- Alarm contact

-) MX2 cannot be equipped with undervoltage release and shunt release at the same time;
-) MX2 can be equipped with a maximum of 2 auxiliary contacts

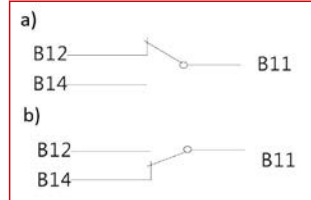
Load Switches MX Size 2 - Accessories

Auxiliary Contact: Indication of Circuit Breaker Status



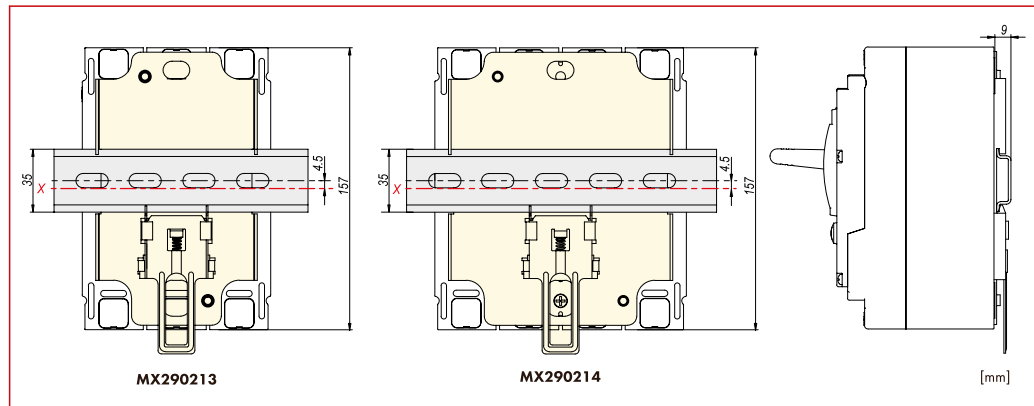
- a) Circuit breaker is at breaking status
- b) Circuit breaker is at making status

Alarm Contact: Indication of Circuit Breaker Status



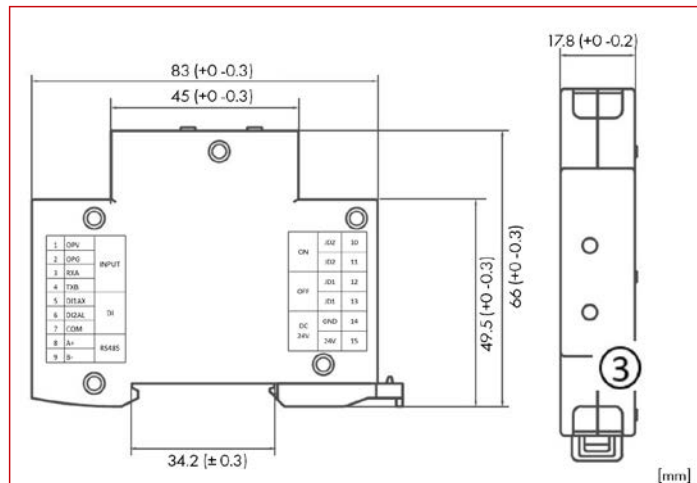
- a) Circuit breaker is at breaking or making status
- b) Circuit breaker is at free tripping status

Clip Plate for MX2 3- and 4 Pole



Load Switches MX Size 2 - Accessories

Communication Module



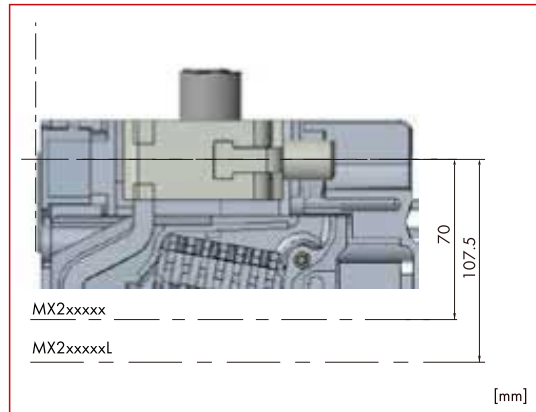
The communication module is an interface module for communication between the electronic trigger of the circuit breakers and the bus system and takes over the communication and output of the remote control via relay contacts.

- Rated voltage: AC230V or DC24V (fault range ± 15%)
- Communication type: RS485 (Modbus RTU protocol)
- Contact capacity: AC250V/3A; DC30V / 3A
- Transmission medium: shielded twisted cable
- Transmission distance: 1.2 km (with shielded twisted pair of category A)
- Display of operating status: LED display
- Number of stations: 1 station

INPUT	1	OPV	15V output, connection to controller 15V input
INPUT	2	OPG	GND, connect to controller GND
INPUT	3	RXA	RS485 Bus A, connection to controller RS485A
INPUT	4	TXB	RS485 Bus B, connection to controller RS485B
DI	5	DI1 (AX)	Auxiliary signal input, connection to AX PIN 4 auxiliary module
DI	6	DI2 (AL)	Alarm signal input, connection to alarm module AL PIN 4
DI	7	WITH	Common terminal, connection to AX, AL, PIN 1
RS485	8	A+	RS485 Bus A, connection to external RS485 Bus A
RS485	9	B-	RS485 Bus B, connection to external RS485 Bus B
ON	10	JD2	Relay output, connection with motor drive for switching on
ON	11	JD2	Relay output, connection with motor drive for switching on
OFF	12	JD1	Relay output, connection with motor drive for switching off
OFF	13	JD1	Relay output, connection with motor drive for switching off
DC24V	14	GND	Supply voltage GND (DC24V model)
DC24V	15	24V	Supply voltage 24V (DC24V model)
AC230	14	N	Supply voltage 230V (AC230V model)
AC230	15	L	Supply voltage 230V (AC230V model)

Load Switches MX Size 2 - Accessories

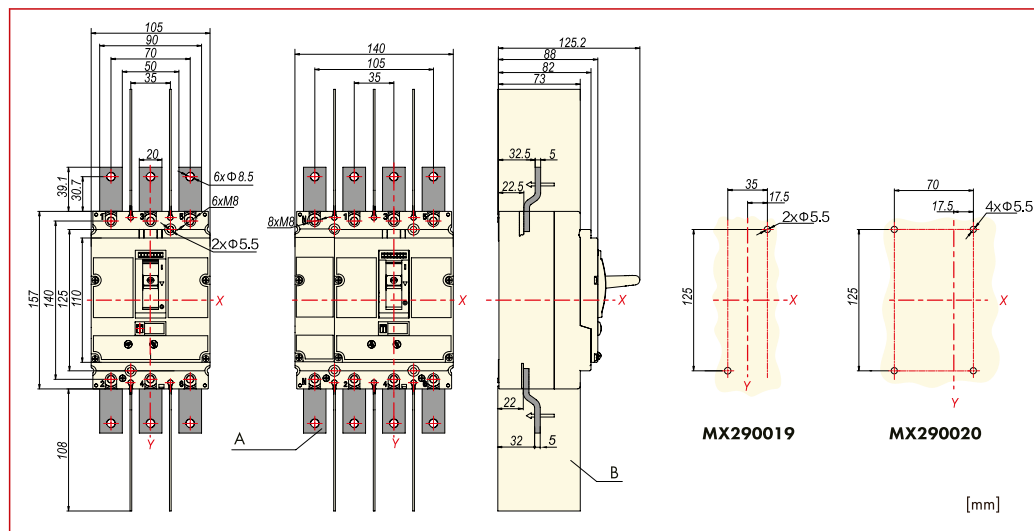
Box Terminal for MX2 10-120mm²



Suitable for aluminum and Cu conductors.

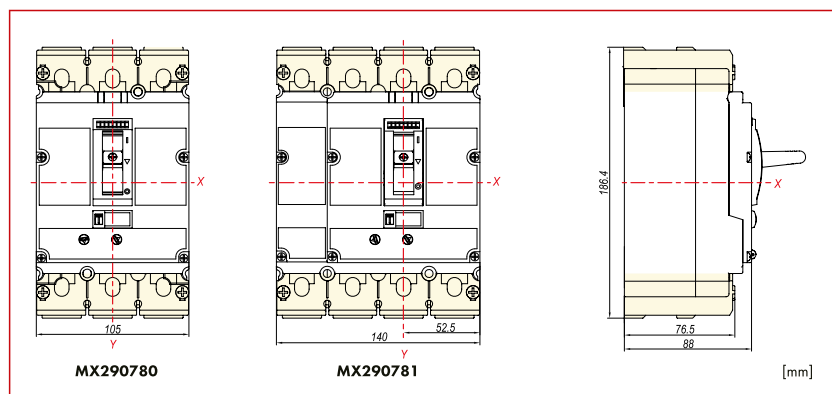
It enables the direct connection of bare conductors.

Connection Extension for MX2 3- and 4 Pole



Enables a more flexible connection. Installation allows the distance between adjacent poles at the inputs and outputs of the circuit breaker to be increased.

Terminal Cover Short for MX2 3- and 4 Pole

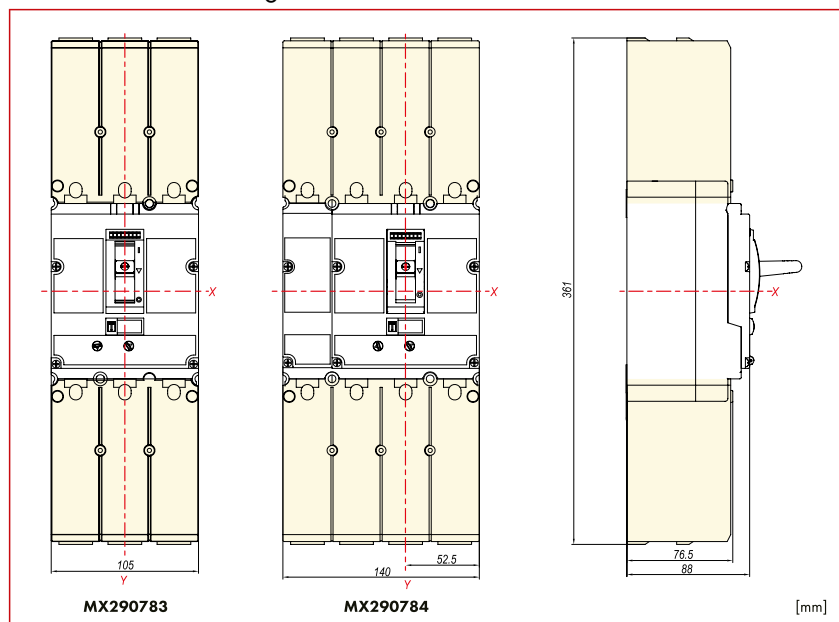


Protection class: IP40

Serves to protect the contacts against contact and also serves as phase separation. If the voltage exceeds 500V, the terminal cover must be used

Load Switches MX Size 2 - Accessories

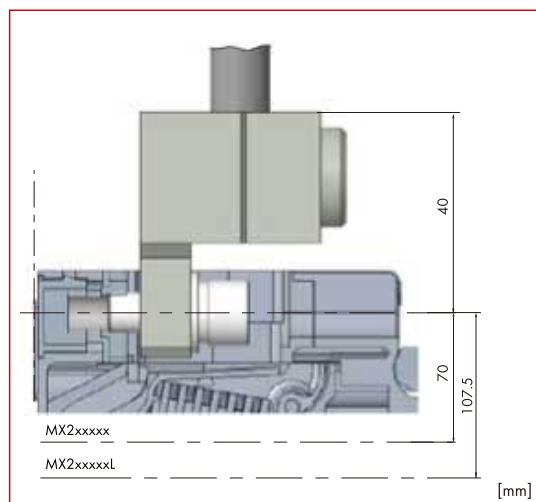
Terminal Cover Long for MX2 3- and 4 Pole



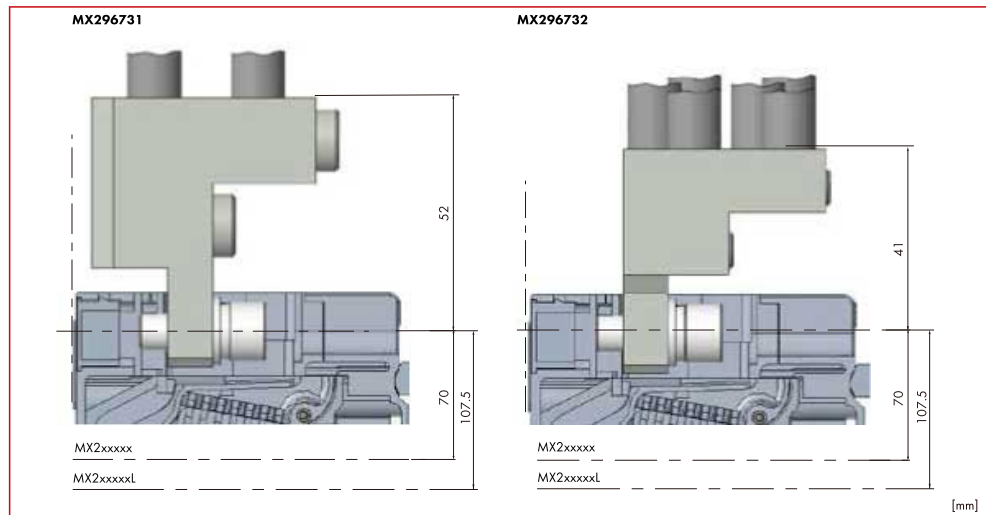
Protection class: IP40

Serves to protect the contacts against contact and also serves as phase separation. If the voltage exceeds 500V, the terminal cover must be used

Tunnel Terminal 1x35-240mm² for MX2



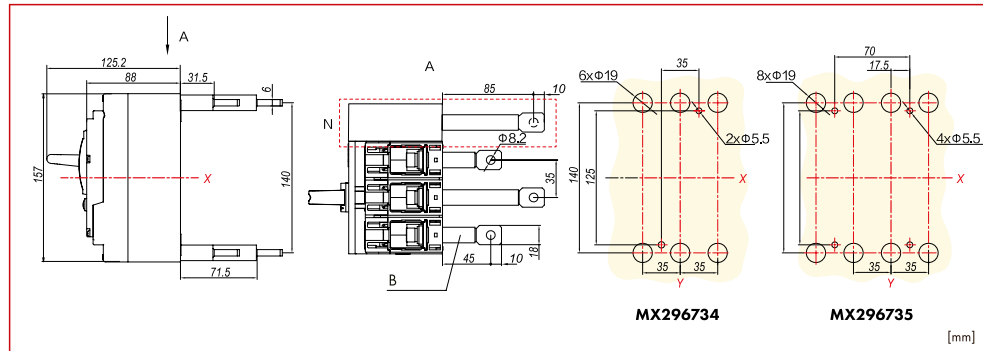
Tunnel Terminal 2x35-120mm²/6X10-35mm² for MX2



Suitable for aluminum and Cu conductors.
Allows the direct connection of bare conductors.

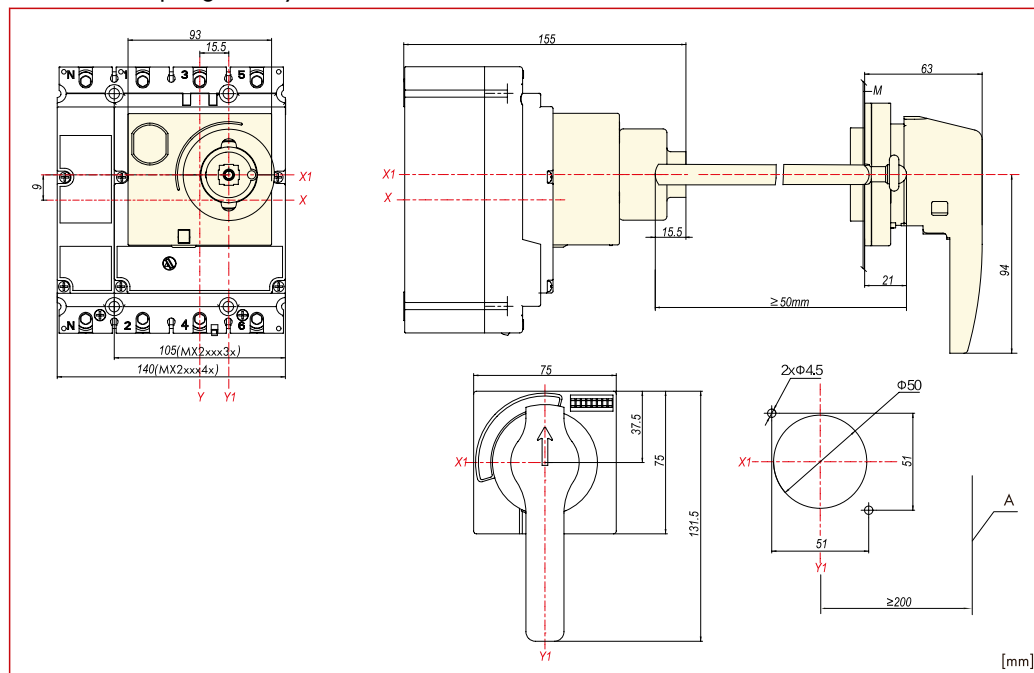
Load Switches MX Size 2 - Accessories

Rear Connection for MX2 3- and 4 Pole



Allows the circuit breaker to be connected behind the mounting level.

Door Coupling Rotary Handle for MX2, Lockable



Protection class: IP50

Switching position 0, I and triggered, in 3 positions.

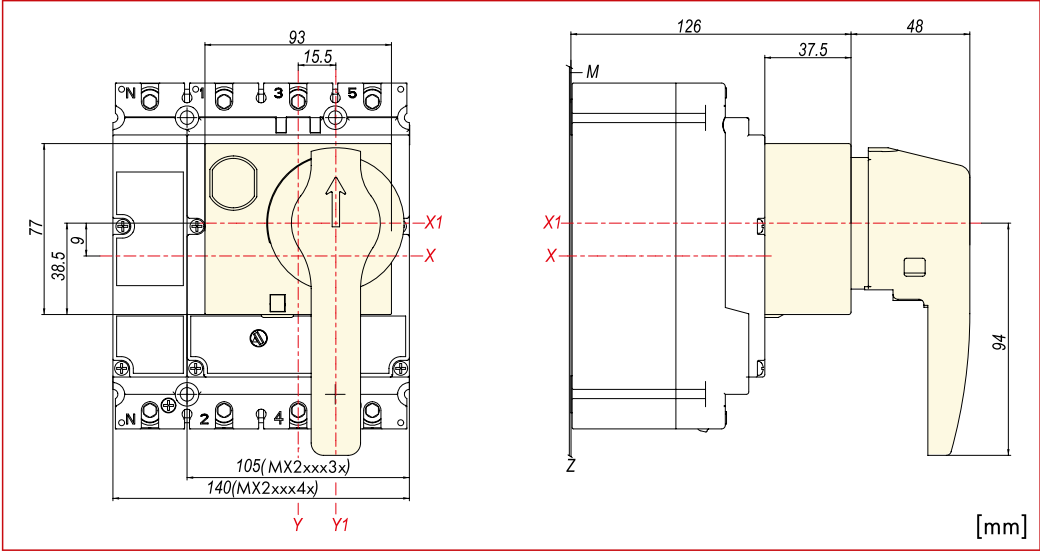
The rotary handle can be locked with a padlock in the OFF position.

Attention: two versions for thermomagnetic or electronic release.

Enclosure door locked in "I" position

Load Switches MX Size 2 - Accessories

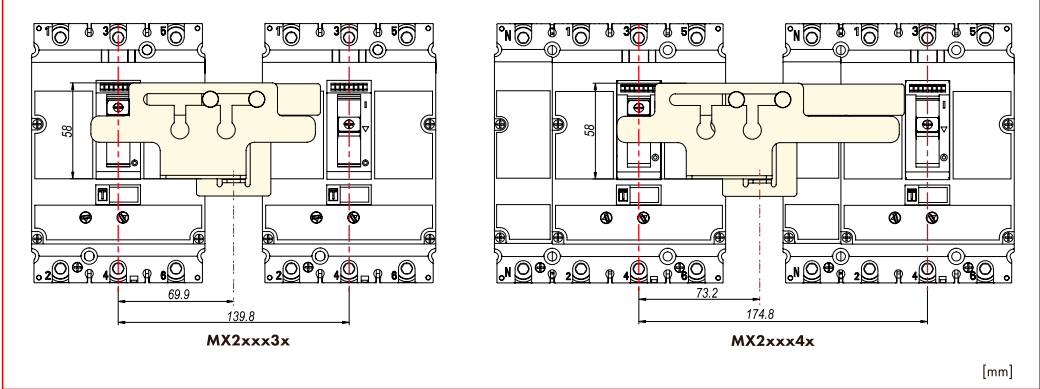
Rotary Handle Complete for MX2, Lockable



X	Horizontal centre switch
X1	Horizontal centre rotary handle
Y	Vertical centre switch
Y1	Vertical centre rotary handle

Protection class: IP40
 Switching position 0, I and triggered, in 3 positions.
 The rotary handle can be locked with a padlock in the OFF position.
 Attention: two versions for thermomagnetic or electronic release.

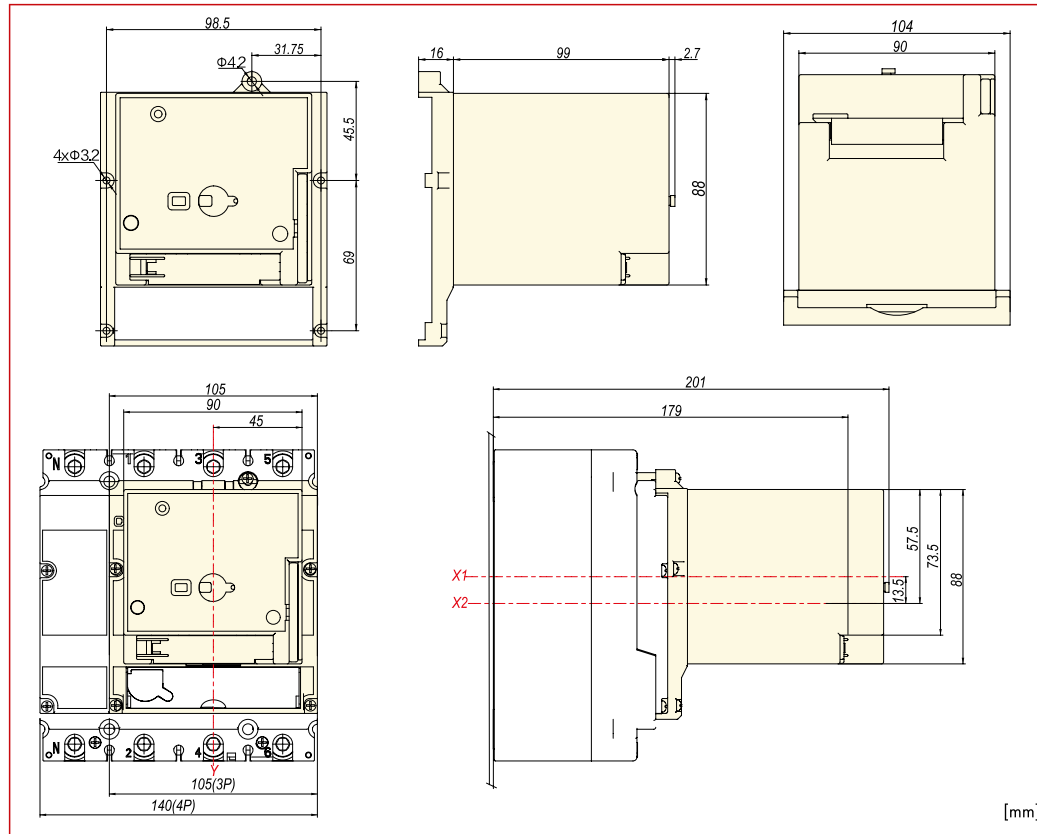
Mechanical Interlock for MX2 3- and 4 Pole



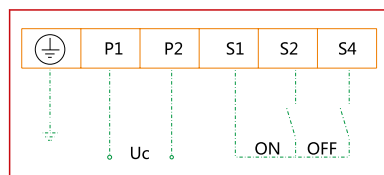
When using this locking device with two circuit breakers of the same size, only one of them can be operated. For manual locking of two circuit breakers.

Load Switches MX Size 2 - Accessories

Remote Operator for MX2



X1	Horizontal centre remote operator
X2	Horizontal centre switch
Y	Vertical centre

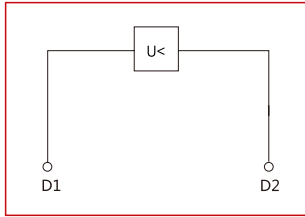


It is suitable for switching on, off and switching on circuit breakers over long distances, as well as for automation applications.

- Protection class: IP40
- Display 0, I and triggered in 3 positions
- Switching between Automatic and Manual Operation
- Automatic switching via electrical control inputs
- Manual switching via key.
- When control voltage is between 85% and 110%, the circuit breaker can be reliably switched on and off.

Load Switches MX Size 2 - Accessories

Under Voltage Release

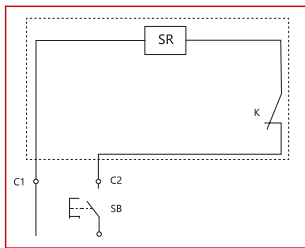


Immediate triggering of circuit breakers or switch disconnectors when the supply voltage drops below 35% - 70%.
Can be used for EMERGENCY STOP devices.

Installed in the circuit breaker.
















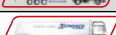

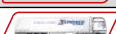














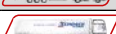








If the undervoltage trigger is de-energized, contacting the switch main contacts during switch-on tests is safely prevented.

Shunt Trip



Immediate triggering of circuit breakers or switch disconnectors at voltage pulse or application of continuous voltage in the range of 70% to 110% of the rated control voltage. If the working current trigger is live, contacting the switch main contacts during switch-on tests is reliably prevented.

Load Switches MX Size 2 - Accessories

DESCRIPTION	AVAILABLE	ORDER NO.
General accessories		
Toggle Lever Locking Device for MX2		MX290199
Clip Plate 25mm DIN-S for MX2 3 pole		MX290213
Clip Plate 25mm DIN-S for MX2 4 pole		MX290214
Connecting technic, accessories		
Box Terminal for MX2 10-120mm ² , 1 piece		MX290015
Connection extension 3 pole for MX2, 6 pieces		MX290019
Connection extension 4 pole for MX2, 8 pieces		MX290020
Terminal Cover short 3 pole for MX2		MX290780
Terminal Cover short 4 pole for MX2		MX290781
Terminal Cover long 3 pole for MX2		MX290783
Terminal Cover long 4 pole for MX2		MX290784
Tunnel Terminal 1x35-240mm ² for MX2, 1 piece		MX296730
Tunnel Terminal 2x35-120mm ² for MX2, 1 piece		MX296731
Tunnel Terminal 6x10-35mm ² for MX2, 1 piece		MX296732
Rear Connection, 3 pole for MX2		MX296734
Rear Connection, 4 pole for MX2		MX296735
Socket for MX2 3 pole		MX296871
Socket for MX2 4 pole		MX296872
Safety release for socket MX2 for thermal release		MX296873
Safety release for socket MX2 for electronic release		MX296874
Phase separator plates MX2		MX296870
Rotary handles, door coupling handles, accessories		
Mechanical Interlock for MX2 3 pole		MX291581
Mechanical Interlock for MX2 4 pole		MX291582
Rotary handle complete, lockable for MX2 SD		MX290127
Door coupling rotary handle, lockable, for MX2 SD		MX290174
Undervoltage release units, shunt-trips and accessories		
Under Voltage Release 110VAC for MX2, MX3		MX299462
Under Voltage Release 220-240VAC for MX2, MX3		MX299471
Under Voltage Release 380-415VAC for MX2, MX3		MX299473
Under Voltage Release 24VDC for MX2, MX3		MX299481
Under Voltage Release 220VDC for MX2, MX3		MX299489
Shunt trip 110VAC for MX2, MX3		MX299567
Shunt trip 220-240VAC for MX2, MX3		MX290154
Shunt trip 380-415VAC for MX2, MX3		MX291607
Shunt trip 24VDC for MX2, MX3		MX299736
Shunt trip 220VDC for MX2, MX3		MX299742
Remote Operator 24VDC for MX2		MX299837
Remote Operator 110VAC/110-120VDC for MX2		MX299838
Remote Operator 220-240VAC/220VDC for MX2		MX299832
Remote Operator 380-415VAC for MX2		MX299833
Measuring Unit with Modbus 4-pole for MX2		MX290040
Auxiliary contacts		
Auxiliary contact 1 CO		MX199411
Alarm contact 1 CO		MX199511

Load Switches MX Size 3, 3 Pole



MX340035

Schrack-Info

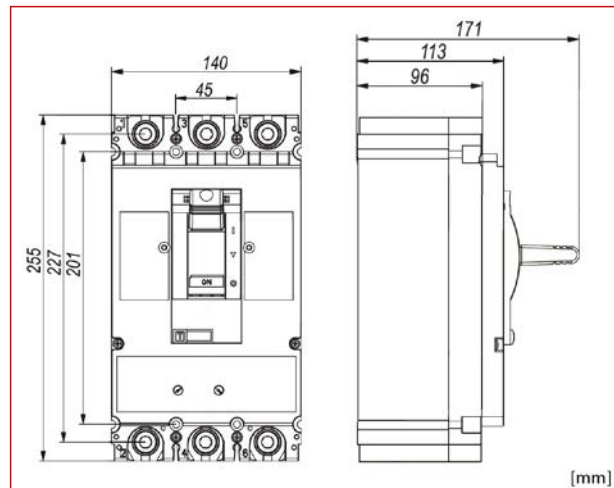
- Load Switches without release unit
- Screw connections standard, box terminals as option
- Retrofittable with auxiliary contacts, undervoltage and shunt release
- Rated short-circuit making capacity $I_{cm} = 8\text{kA}$ (für MX34) / 14kA (für MX38) at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated operational current 400A / 800A



Technical Data

		MX34	MX38		
Size type		3			
Poles		3			
Conventional thermal current I_{th} 40°C		400A	800A		
Rated operating current I_e		400A	800A		
Rated operating voltage		≤690VAC			
Rated insulation voltage U_i		1000V	1250V		
Rated impulse withstand voltage U_{imp}		12kV			
Rated short-circuit making capacity I_{cm}		8kA	14kA		
Rated short-time withstand current I_{cw} 1s / 3s		5kA/5kA	8kA/10kA (1s); 8kA/10kA (3s)		
Utilization category		AC-22A/AC-23A			
Min. ambient temperature		-40°C			
Max. ambient temperature		70°C			
Arcing distance		0			
Mechanical durability		15000 operation cycles	10000 operation cycles		
Electrical endurance		AC 415V, I_n	4000 operation cycles		
		AC 690V, I_n	2000 operation cycles		
Mounting and connection		Fixed	Front connection	•	-
			Rear connection	•	•
		Plug-in	Front connection	•	-
			Rear connection	•	-
		Draw-out	Front connection	•	•
			Rear connection	•	•
DIN rail	Front connection	-	-		
Net weight		5kg	9.5kg		

Load Switches MX Size 3, 3 Pole

Dimensions



DESCRIPTION	AVAILABLE	ORDER NO.
to 800A load switches, remote releasable		
Switch Disconnector MX3, 3 pole, 400A		MX340035
Switch Disconnector MX3, 3 pole, 800A		MX380035

Load Switches MX Size 3, 4 Pole



MX340045

Schrack-Info

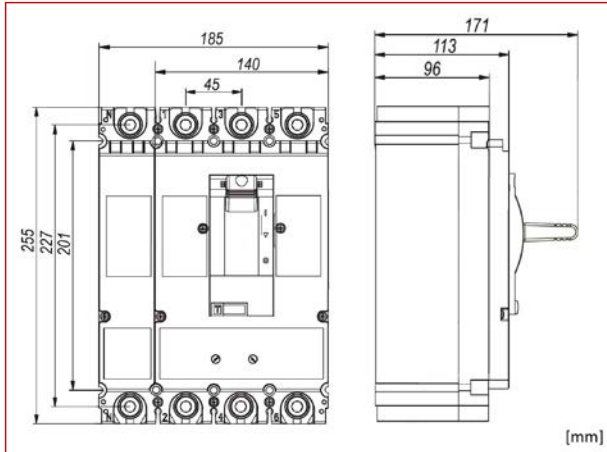
- Load Switches without release unit
- Screw connections standard, box terminals as option
- Retrofittable with auxiliary contacts, undervoltage and shunt release
- Rated short-circuit making capacity $I_{cm} = 8\text{kA}$ (für MX34) / 14kA (für MX38) at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated operational current 400A / 800A

Technical Data

		MX34	MX38	
Size type		3		
Poles		4		
Conventional thermal current I_{th} 40°C		400A	800A	
Rated operating current I_e		400A	800A	
Rated operating voltage		≤690VAC		
Rated insulation voltage U_i		1000V	1250V	
Rated impulse withstand voltage U_{imp}		12kV		
Rated short-circuit making capacity I_{cm}		8kA	14kA	
Rated short-time withstand current I_{cw}	1s / 3s	5kA/5kA	8kA/10kA (1s); 8kA/10kA (3s)	
Utilization category		AC-22A/AC-23A		
Min. ambient temperature		-40°C		
Max. ambient temperature		70°C		
Arcing distance		0		
Mechanical durability		15000 operation cycles	10000 operation cycles	
Electrical endurance	AC 415V, I_n	4000 operation cycles	2000 operation cycles	
	AC 690V, I_n	1500 operation cycles	1000 operation cycles	
Mounting and connection	Fixed	Front connection	•	-
		Rear connection	•	•
	Plug-in	Front connection	•	-
		Rear connection	•	-
	Draw-out	Front connection	•	•
		Rear connection	•	•
DIN rail	Front connection	-	-	
Net weight		5.5kg	12.5kg	

Load Switches MX Size 3, 4 Pole

Dimensions



DESCRIPTION	AVAILABLE	ORDER NO.
to 800A load switches, remote releasable		
Switch Disconnecter MX3, 4 pole, 400A		MX340045
Switch Disconnecter MX3, 4 pole, 800A		MX380045

Load Switches MX Size 3 - Accessories



MX390015



MX390125



MX390172



MX390199



MX396731



MX399832



MX390780



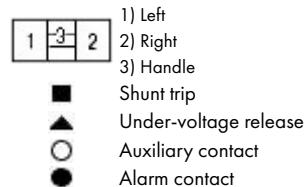
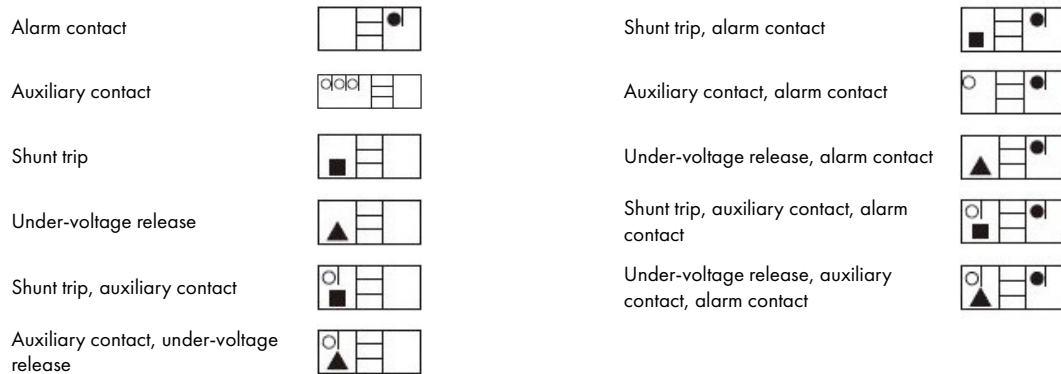
MX390783

Schrack-Info

Wide range of accessories

- Auxiliary contacts
- Rotary handles, door coupling handles
- Under voltage release units, shunt-trips
- Connection accessories
- General accessories

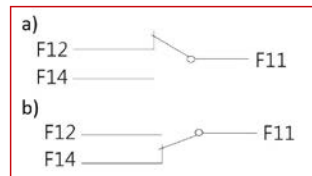
Installation Diagram for Accessories



-) MX3 cannot be equipped with undervoltage release and shunt release at the same time;
-) MX3 can be equipped with a maximum of 3 auxiliary contacts
-) MX series can only be equipped with one alarm contact

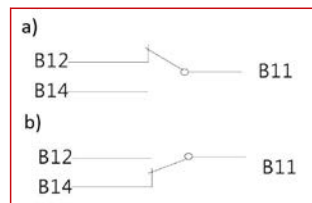
▀ Load Switches MX Size 3 - Accessories

▀ Auxiliary Contact: Indication of Circuit Breaker Status



- a) Circuit breaker is at breaking status
- b) Circuit breaker is at making status

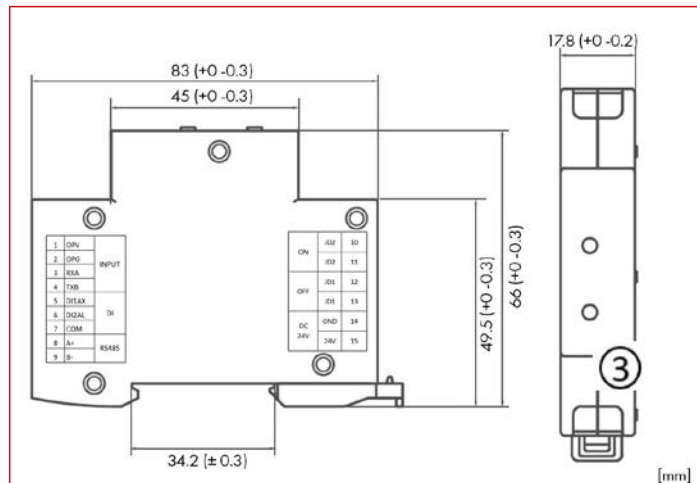
▀ Alarm Contact: Indication of Circuit Breaker Status



- a) Circuit breaker is at breaking or making status
- b) Circuit breaker is at free tripping status

Load Switches MX Size 3 - Accessories

Communication Module

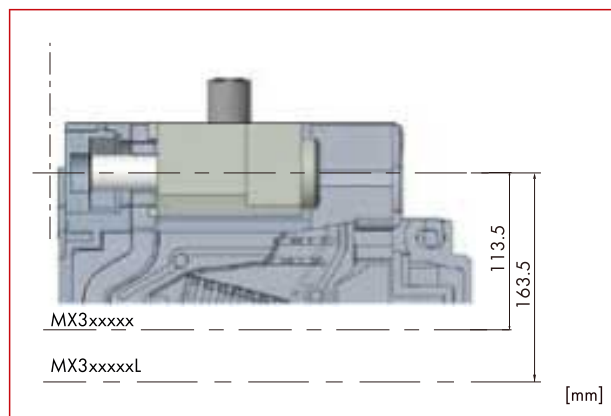


The communication module is an interface module for communication between the electronic trigger of the circuit breakers and the bus system and takes over the communication and output of the remote control via relay contacts.

- Rated voltage: AC230V or DC24V (fault range ± 15%)
- Communication type: RS485 (Modbus RTU protocol)
- Contact capacity: AC250V/3A; DC30V / 3A
- Transmission medium: shielded twisted cable
- Transmission distance: 1.2 km (with shielded twisted pair of category A)
- Display of operating status: LED display
- Number of stations: 1 station

INPUT	1	OPV	15V output, connection to controller 15V input
INPUT	2	OPG	GND, connect to controller GND
INPUT	3	RXA	RS485 Bus A, connection to controller RS485A
INPUT	4	TXB	RS485 Bus B, connection to controller RS485B
DI	5	DI1 (AX)	Auxiliary signal input, connection to AX PIN 4 auxiliary module
DI	6	DI2 (AL)	Alarm signal input, connection to alarm module AL PIN 4
DI	7	COM	Common terminal, connection to AX, AL, PIN 1
RS485	8	A+	RS485 Bus A, connection to external RS485 Bus A
RS485	9	B-	RS485 Bus B, connection to external RS485 Bus B
ON	10	JD2	Relay output, connection with motor drive for switching on
ON	11	JD2	Relay output, connection with motor drive for switching on
OFF	12	JD1	Relay output, connection with motor drive for switching off
OFF	13	JD1	Relay output, connection with motor drive for switching off
DC24V	14	GND	Supply voltage GND (DC24V model)
DC24V	15	24V	Supply voltage 24V (DC24V model)
AC230	14	N	Supply voltage 230V (AC230V model)
AC230	15	L	Supply voltage 230V (AC230V model)

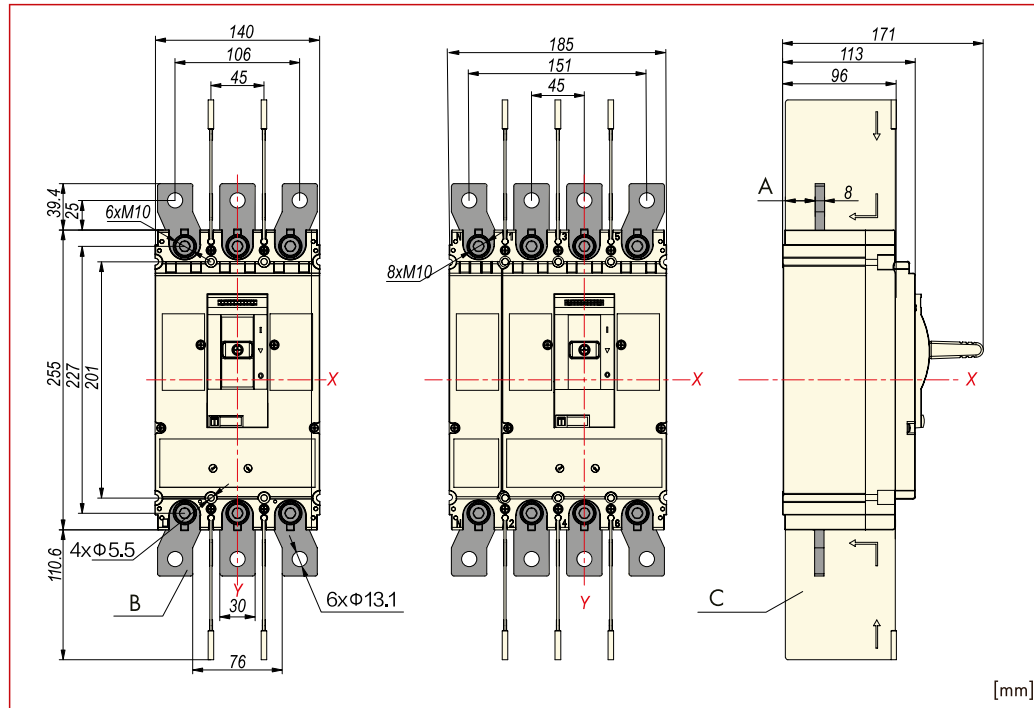
Tunnel Terminal for MX3 4X95mm²



Suitable for aluminum and Cu conductors.
It enables the direct connection of bare conductors.

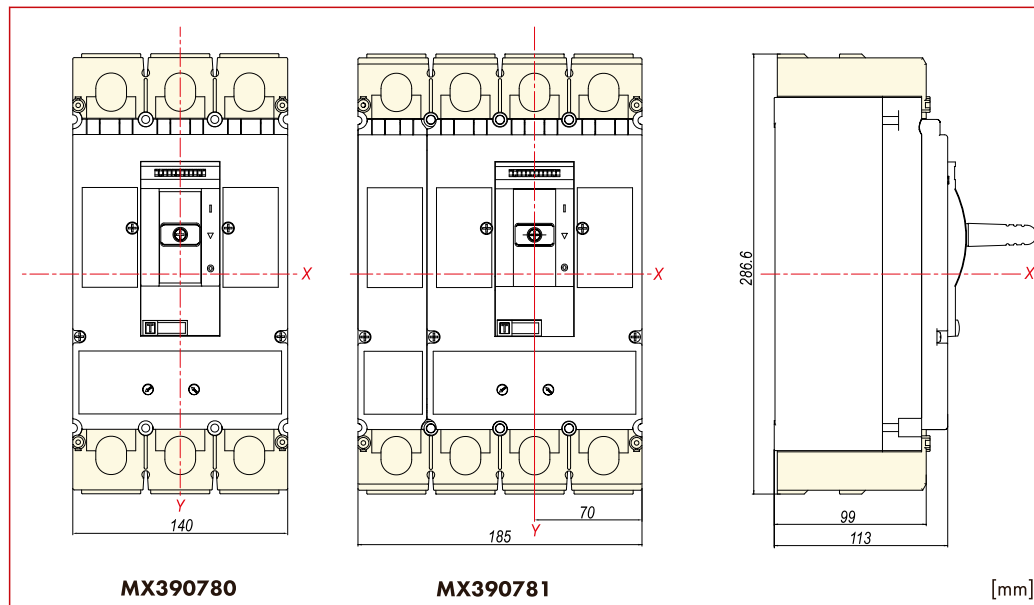
Load Switches MX Size 3 - Accessories

Connection Extension for MX3



Enables a more flexible connection. Installation allows the distance between adjacent poles at the inputs and outputs of the circuit breaker to be increased.

Terminal Cover Short for MX3



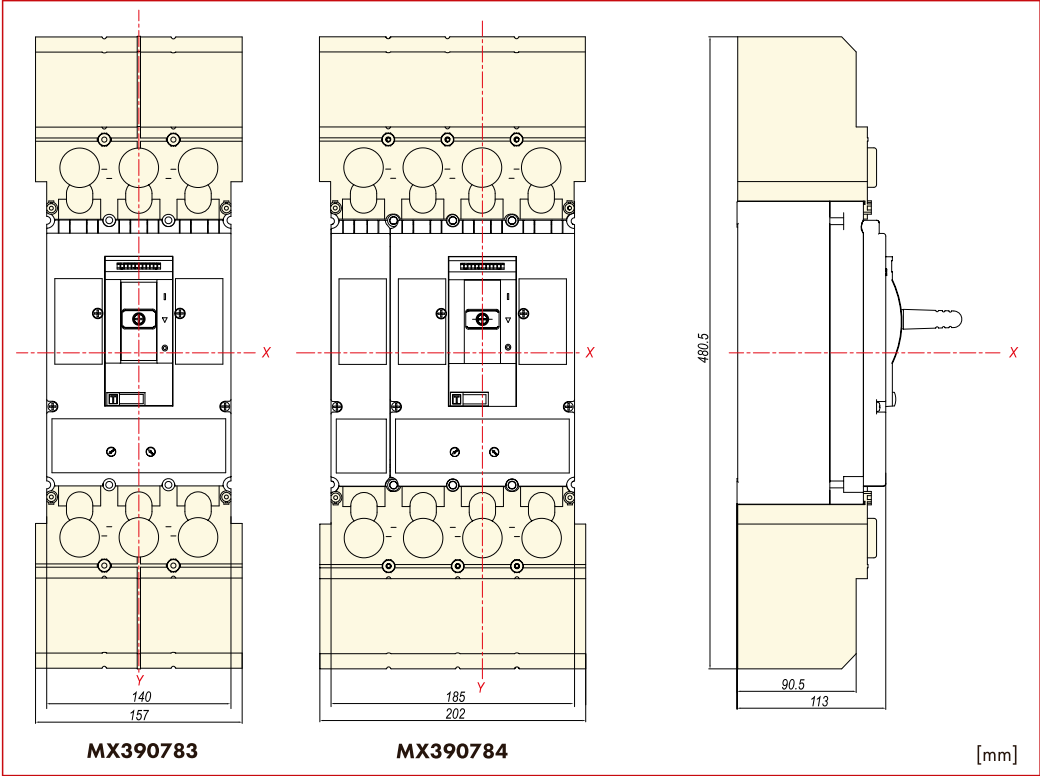
Protection class: IP40

Serves to protect the contacts against contact and also serves as phase separation.

If the voltage exceeds 500V, the terminal cover must be used.

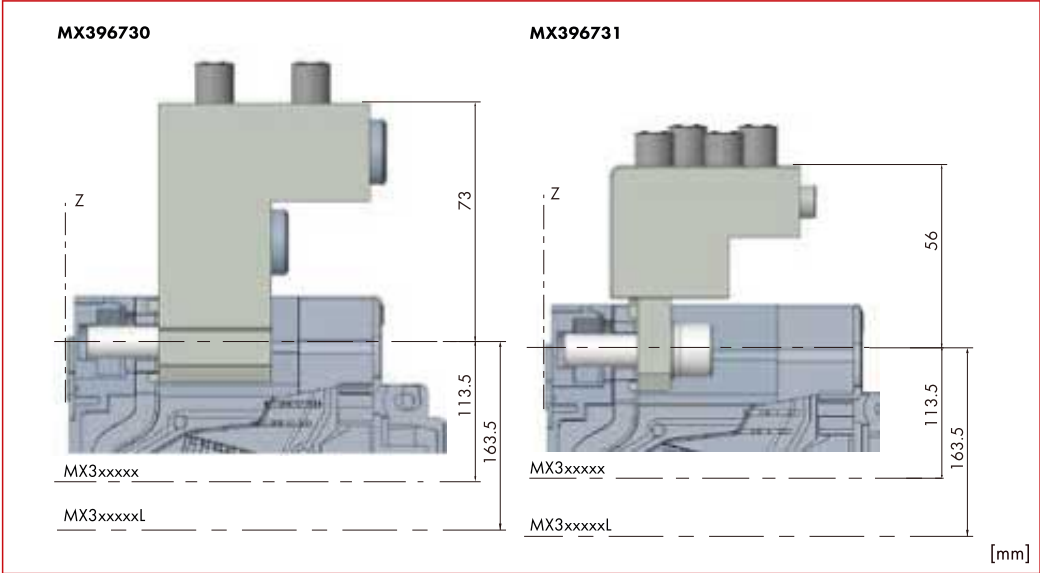
Load Switches MX Size 3 - Accessories

Terminal Cover Long for MX3



Protection class: IP40
Serves to protect the contacts against contact and also serves as phase separation.
If the voltage exceeds 500V, the terminal cover must be used.

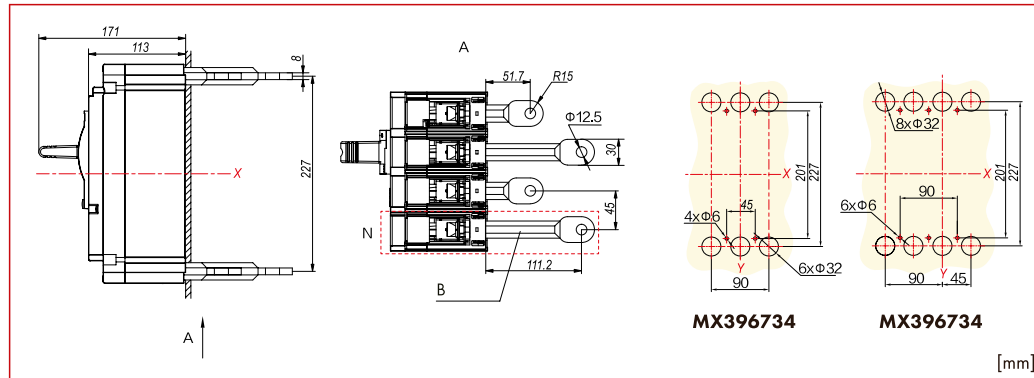
Tunnel Terminal for MX3, 2x120-240mm²/4X95mm²



Suitable for aluminum and Cu conductors.
It enables the direct connection of bare conductors

Load Switches MX Size 3 - Accessories

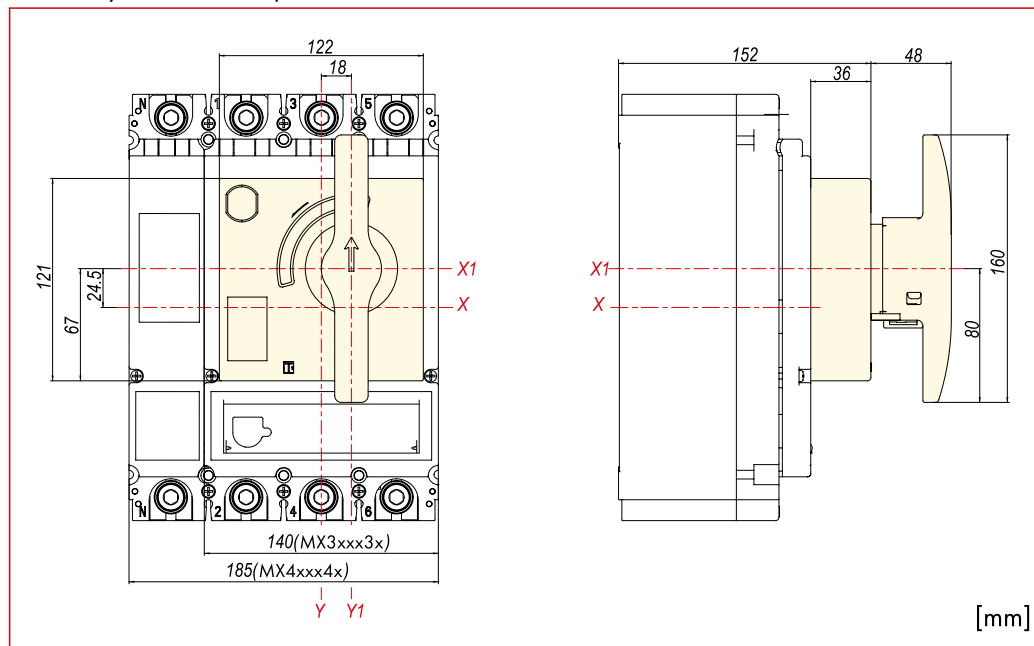
Rear Connection for MX3 3- and 4 Pole



A	Top view
B	Rear Connection
N	Neutral conductor
X	Horizontal centre
Y	Vertical centre

Allows the circuit breaker to be connected behind the mounting level.

Rotary Handle Complete for MX3, Lockable



X	Horizontal centre Switch
X1	Horizontal centre Rotary Handle
Y	Vertical centre switch
Y1	Vertical centre Rotary Handle

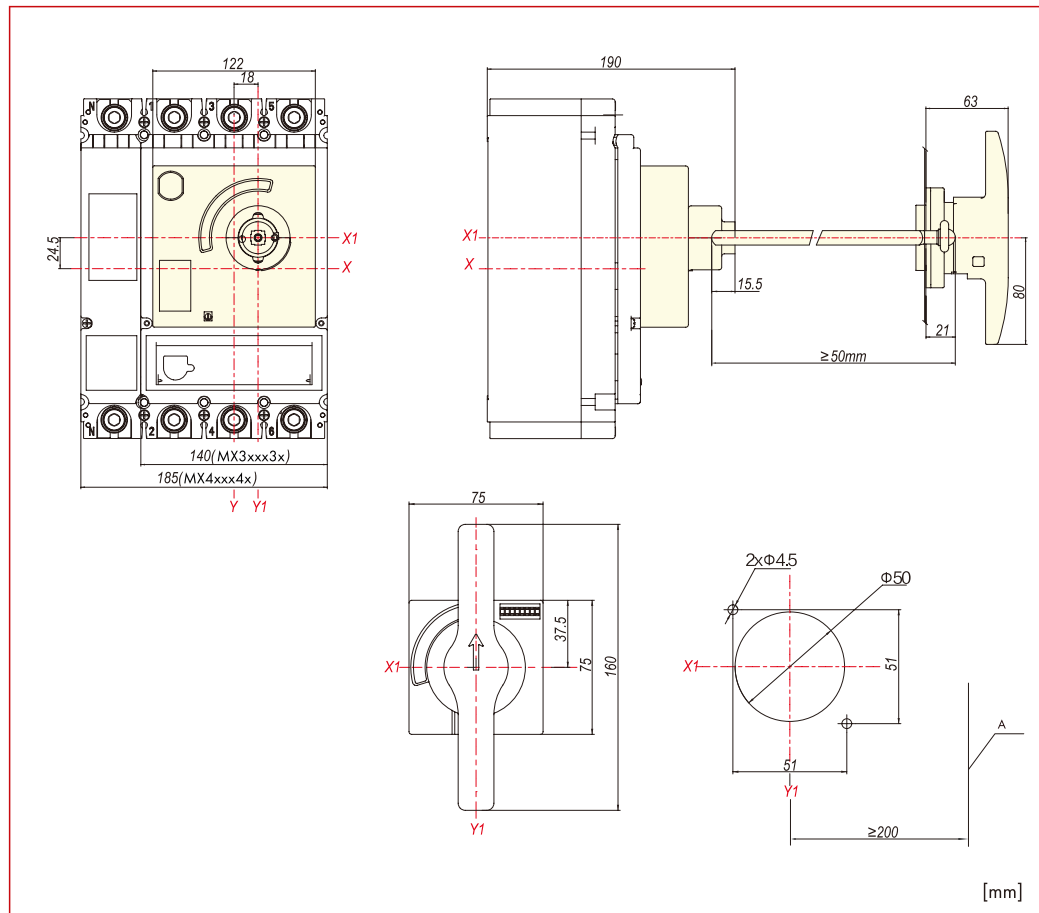
Protection class: IP40

Activating position 0, I and released, in 3 positions

The rotary handle can be locked with a padlock in the OFF state.

Attention: two versions for thermomagnetic or electronic triggers

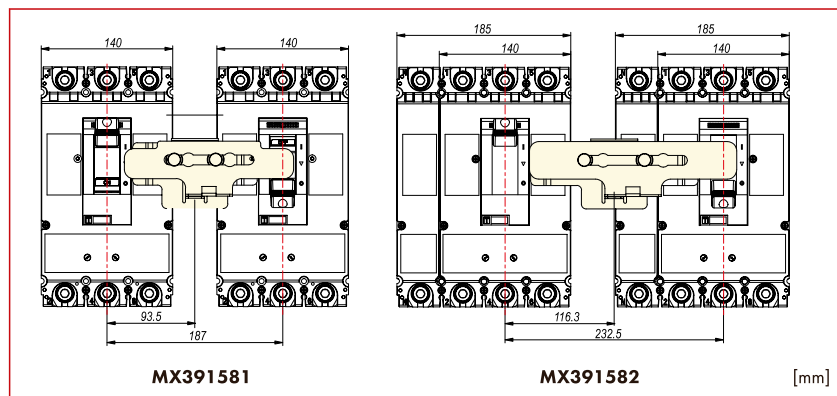
Load Switches MX Size 3 - Accessories
Door Coupling Rotary Handle for MX3, Lockable



X	Horizontal centre switch
X1	Horizontal centre rotary handle
Y	Vertical centre switch
Y1	Vertical centre rotary handle

Protection class: IP50
 Activation position 0, I and triggered, in 3 positions
 The rotary handle can be locked with a padlock in the OFF state.
 Attention: two versions for thermomagnetic or electronic triggers.
 Control cabinet door locked in position "I"

Mechanical Interlock for MX3 3- and 4 Pole

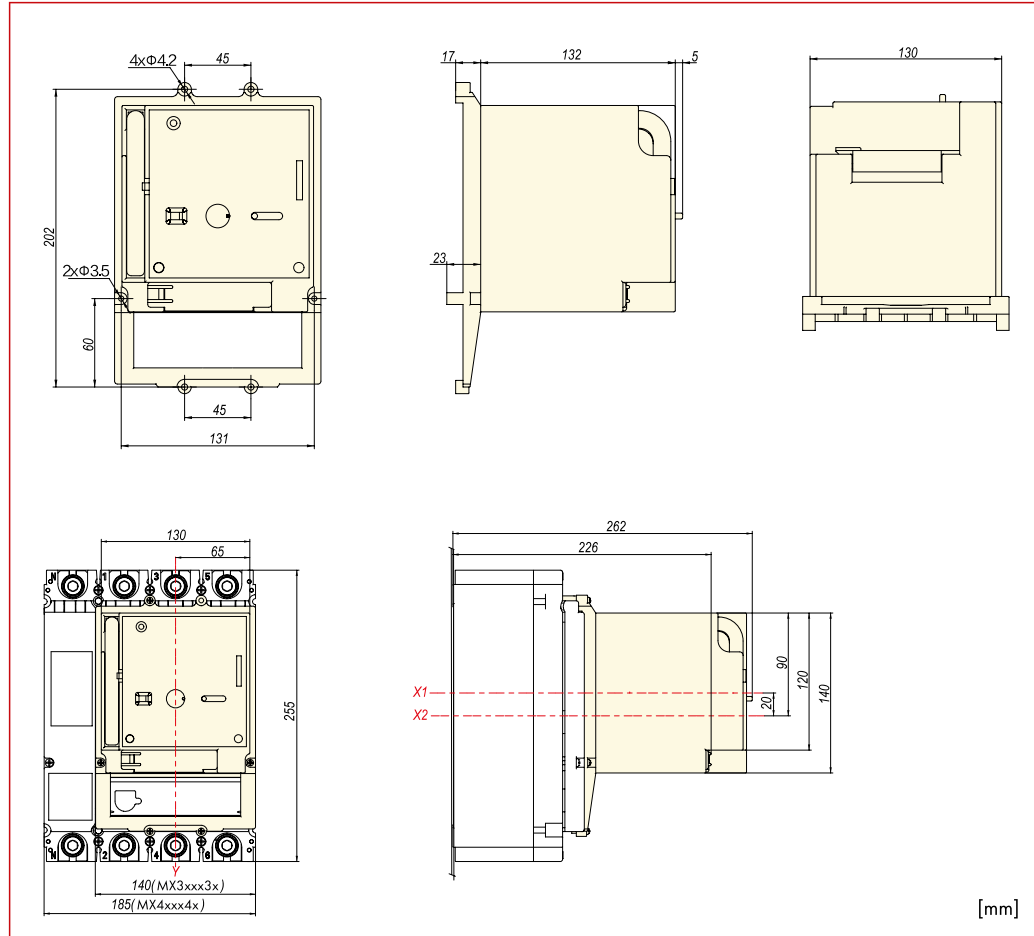


When using this locking device with two circuit breakers of the same size, only one of them can be operated. For manual locking of two circuit breakers.

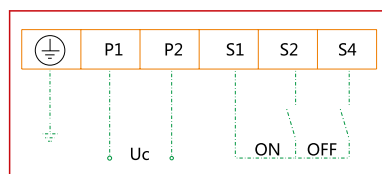
Load Switches MX Size 3 - Accessories

Remote Operator for MX3

X1	Horizontal centre remote operator
X2	Horizontal centre switch
Y	Vertical centre



[mm]

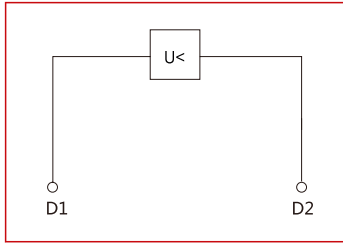


It is suitable for switching on, off and switching on circuit breakers over long distances, as well as for automation applications.

- Protection class: IP40
- Display 0, I and triggered in 3 positions
- Switching between Automatic and Manual Operation
- Automatic switching via electrical control inputs
- Manual switching via key.
- When control voltage is between 85% and 110%, the circuit breaker can be reliably switched on and off.

Load Switches MX Size 3 - Accessories

Under Voltage Release for MX3



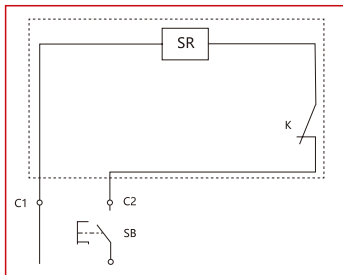
Instantaneous tripping of circuit breakers or switch-disconnectors when the supply voltage drops below 35% - 70%.

Can be used with EMERGENCY STOP devices.

Is installed in the circuit breaker.


















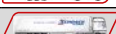

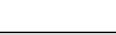



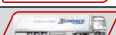










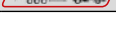





When the undervoltage release is de-energised, contacting of the breaker main contacts is reliably prevented during closing attempts.

Shunt Trip for MX3



Immediate triggering of circuit breakers or switch disconnectors at voltage pulse or application of continuous voltage in the range of 70% to 110% of the rated control voltage. If the working current trigger is live, contacting the switch main contacts during switch-on tests is reliably prevented.

Load Switches MX Size 3 - Accessories

DESCRIPTION	AVAILABLE	ORDER NO.
General accessories		
Toggle Lever Locking Device for MX3		MX390199
Connecting technic, accessories		
Box Terminal for MX3 120-240MM ² , 1 piece		MX390015
Connection extension 3 pole for MX3, 6 pieces		MX390019
Connection extension 4 pole for MX3, 8 pieces		MX390020
Terminal Cover short 3 pole for MX3		MX390780
Terminal Cover short 4 pole for MX3		MX390781
Terminal Cover long 3 pole for MX3		MX390783
Terminal Cover long 4 pole for MX3		MX390784
Tunnel Terminal 2x120-240mm ² for MX3, 1 piece		MX396730
Tunnel Terminal 4x95mm ² for MX3, 1 piece		MX396731
Rear Connection, 3 pole for MX3		MX396734
Rear Connection, 4 pole for MX3		MX396735
Socket for MX3 3 pole		MX396871
Socket for MX3 4 pole		MX396872
Safety release for socket MX3 for thermal release		MX396873
Safety release for socket MX3 for electronic release		MX396874
Phase separator plates MX3		MX396870
Rotary handles, door coupling handles, accessories		
Mechanical Interlock for MX3 3 pole		MX391581
Mechanical Interlock for MX3 4 pole		MX391582
Rotary handle complete, lockable for MX3 SD		MX390127
Door coupling rotary handle, lockable, for MX3 SD		MX390174
Undervoltage release units, shunt-trips and accessories		
Under Voltage Release 110VAC for MX2, MX3		MX299462
Under Voltage Release 220-240VAC for MX2, MX3		MX299471
Under Voltage Release 380-415VAC for MX2, MX3		MX299473
Under Voltage Release 24VDC for MX2, MX3		MX299481
Under Voltage Release 220VDC for MX2, MX3		MX299489
Shunt trip 110VAC for MX2, MX3		MX299567
Shunt trip 220-240VAC for MX2, MX3		MX290154
Shunt trip 380-415VAC for MX2, MX3		MX291607
Shunt trip 24VDC for MX2, MX3		MX299736
Shunt trip 220VDC for MX2, MX3		MX299742
Remote Operator 24VDC for MX3		MX399837
Remote Operator 110VAC/110-120VDC for MX3		MX399838
Remote Operator 220-240VAC/220VDC for MX3		MX399832
Remote Operator 380-415VAC for MX3		MX399833
Measuring Unit with Modbus 3-pole for MX3, IT-Net		MX390031
Measuring Unit with Modbus 3-pole for MX3, TT/TN-Net		MX390032
Measuring Unit with Modbus 4-pole for MX3		MX390040
Auxiliary contacts		
Auxiliary contact 1 CO		MX199411
Alarm contact 1 CO		MX199511

Load Switches MX Size 4, 3 Pole



MX480035

Schrack-Info

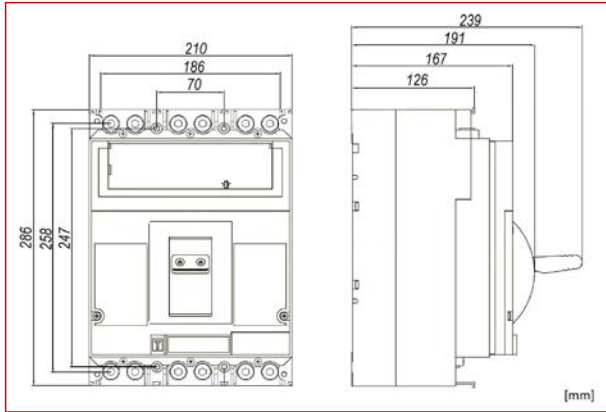
- Load Switches without release unit
- Screw connections standard, box terminals as option
- Retrofittable with auxiliary contacts, undervoltage and shunt release
- Rated short-circuit making capacity $I_{cm} = 40\text{kA}$ at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated operational current 800A / 1600A



Technical Data

Size type		4	
Poles		3	
Conventional thermal current I_{th} 40°C		1600A	
Rated operating current I_e		1600A	
Rated operating voltage		≤690VAC	
Rated insulation voltage U_i		1000V	
Rated impulse withstand voltage U_{imp}		12kV	
Rated short-circuit making capacity I_{cm}		40kA	
Rated short-time withstand current I_{cw}	1 s / 3s	20kA / 20kA	
Utilization category		AC-22A/AC-23A	
Min. ambient temperature		-40°C	
Max. ambient temperature		70°C	
Arcing distance		0	
Mechanical durability		6000 operation cycles	
Electrical endurance	AC 415V, I_n	1000 operation cycles	
	AC 690V, I_n	1000 operation cycles	
Mounting and connection	Fixed	Front connection	•
		Rear connection	•
	Plug-in	Front connection	-
		Rear connection	-
	Draw-out	Front connection	-
		Rear connection	-
DIN rail	Front connection	-	
Net weight		13kg	

Load Switches MX Size 4, 3 Pole

Dimensions



DESCRIPTION	AVAILABLE	ORDER NO.
800 to 1600A load switches, remote releasable		
Switch Disconnector MX4/800 3 pole 800A		MX480035
Switch Disconnector MX4/1600 3 pole 1600A		MX416035

Load Switches MX Size 4, 4 Pole



MX480045

Schrack-Info

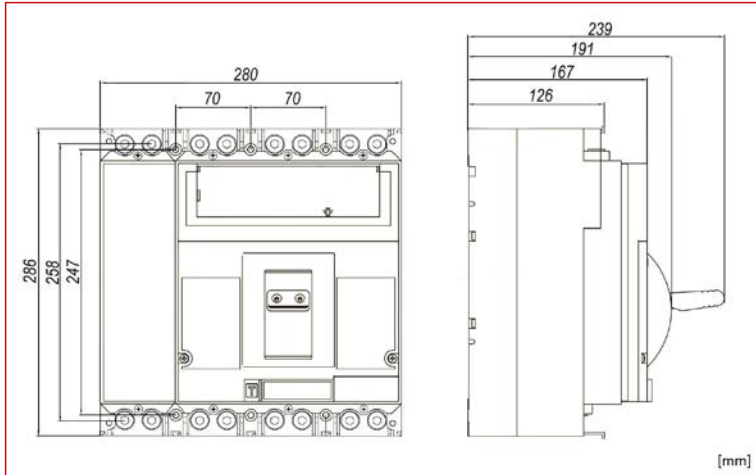
- Load Switches without release unit
- Screw connections standard, box terminals as option
- Retrofittable with auxiliary contacts, undervoltage and shunt release
- Rated short-circuit making capacity $I_{cm} = 40\text{kA}$ at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated operational current 800A / 1600A



Technical Data

Size type		4	
Poles		4	
Conventional thermal current I_{th} 40°C		1600A	
Rated operating current I_e		1600A	
Rated operating voltage		≤690VAC	
Rated insulation voltage U_i		1000V	
Rated impulse withstand voltage U_{imp}		12kV	
Rated short-circuit making capacity I_{cm}		40kA	
Rated short-time withstand current I_{cw}	1s / 3s	20kA / 20kA	
Utilization category		AC-22A/AC-23A	
Min. ambient temperature		-40°C	
Max. ambient temperature		70°C	
Arcing distance		0	
Mechanical durability operation cycles		6000 operation cycles	
Electrical endurance (operation cycles)	AC 415V, I_n	1000 operation cycles	
	AC 690V, I_n	1000 operation cycles	
Mounting and connection	Fixed	Front connection	•
		Rear connection	•
	Plug-in	Front connection	-
		Rear connection	-
	Draw-out	Front connection	-
		Rear connection	-
DIN rail	Front connection	-	
Net weight		17kg	

Load Switches MX Size 4, 4 Pole

Dimensions



DESCRIPTION	AVAILABLE	ORDER NO.
800 to 1600A load switches, remote releasable		
Switch Disconnector MX4/800 4 pole 800A		MX480045
Switch Disconnector MX4/1600 4 pole 1600A		MX416045

Load Switches MX Size 4 - Accessories



MX490017



MX490154



MX496730



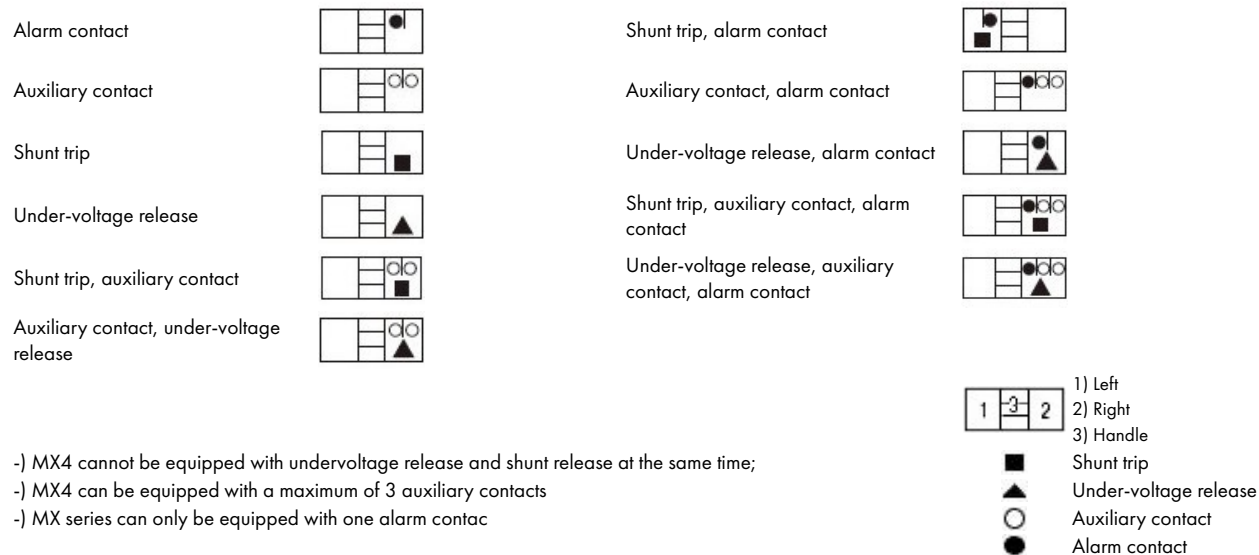
MX499471

Schrack-Info

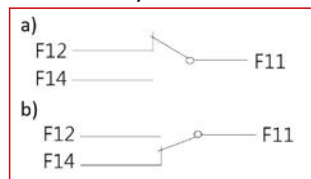
Wide range of accessories

- Auxiliary contacts
- Under voltage release units, shunt-trips
- Connection accessories
- General accessories

Installation Diagram for Accessories

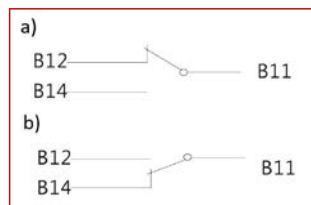


Auxiliary Contact: Indication of Circuit Breaker Status



a) Circuit breaker is at breaking status
 b) Circuit breaker is at making status

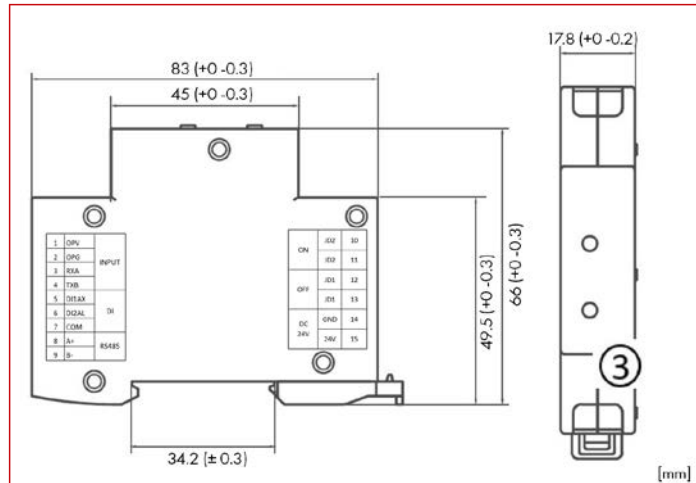
Alarm Contact: Indication of Circuit Breaker Status



a) Circuit breaker is at breaking or making status
 b) Circuit breaker is at free tripping status

Load Switches MX Size 4 - Accessories

Communication Module

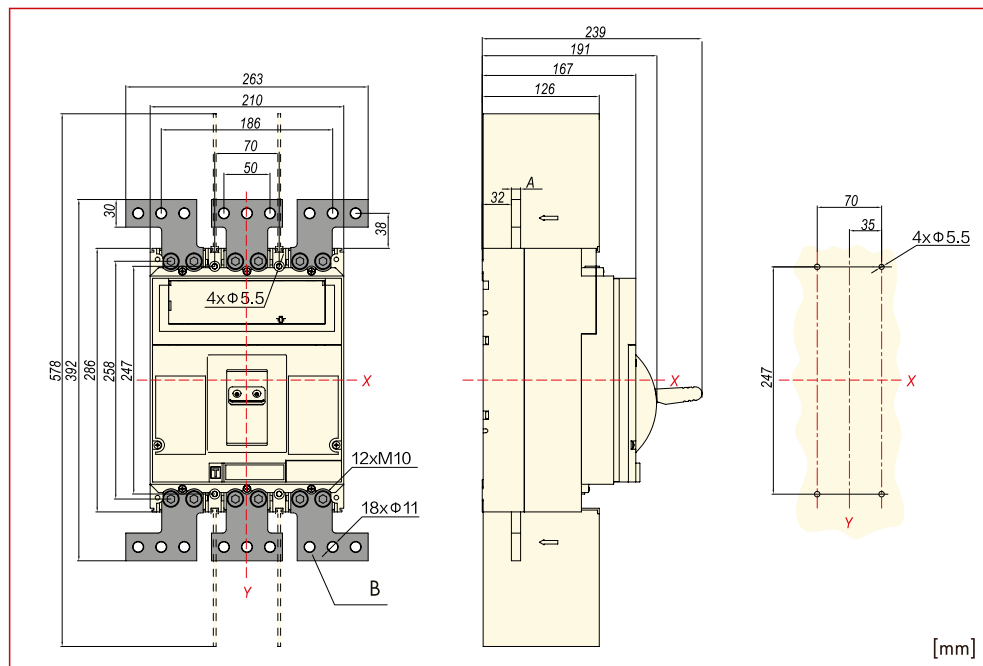


The communication module is an interface module for communication between the electronic trigger of the circuit breakers and the bus system and takes over the communication and output of the remote control via relay contacts.

- Rated voltage: AC230V or DC24V (fault range $\pm 15\%$)
- Communication type: RS485 (Modbus RTU protocol)
- Contact capacity: AC250V/3A; DC30V / 3A
- Transmission medium: shielded twisted cable
- Transmission distance: 1.2 km (with shielded twisted pair of category A)
- Display of operating status: LED display
- Number of stations: 1 station

INPUT	1	OPV	15V output, connection to controller 15V input
INPUT	2	OPG	GND, connect to controller GND
INPUT	3	RXA	RS485 Bus A, connection to controller RS485A
INPUT	4	TXB	RS485 Bus B, connection to controller RS485B
DI	5	DI1 (AX)	Auxiliary signal input, connection to AX PIN 4 auxiliary module
DI	6	DI2 (AL)	Alarm signal input, connection to alarm module AL PIN 4
DI	7	COM	Common terminal, connection to AX, AL, PIN 1
RS485	8	A+	RS485 Bus A, connection to external RS485 Bus A
RS485	9	B-	RS485 Bus B, connection to external RS485 Bus B
ON	10	JD2	Relay output, connection with motor drive for switching on
ON	11	JD2	Relay output, connection with motor drive for switching on
OFF	12	JD1	Relay output, connection with motor drive for switching off
OFF	13	JD1	Relay output, connection with motor drive for switching off
DC24V	14	GND	Supply voltage GND (DC24V model)
DC24V	15	24V	Supply voltage GND (DC24V model)
AC230	14	N	Supply voltage 230V (AC230V model)
AC230	15	L	Supply voltage 230V (AC230V model)

Connection Extension for MX4, 1000-1250A, 3 Pole



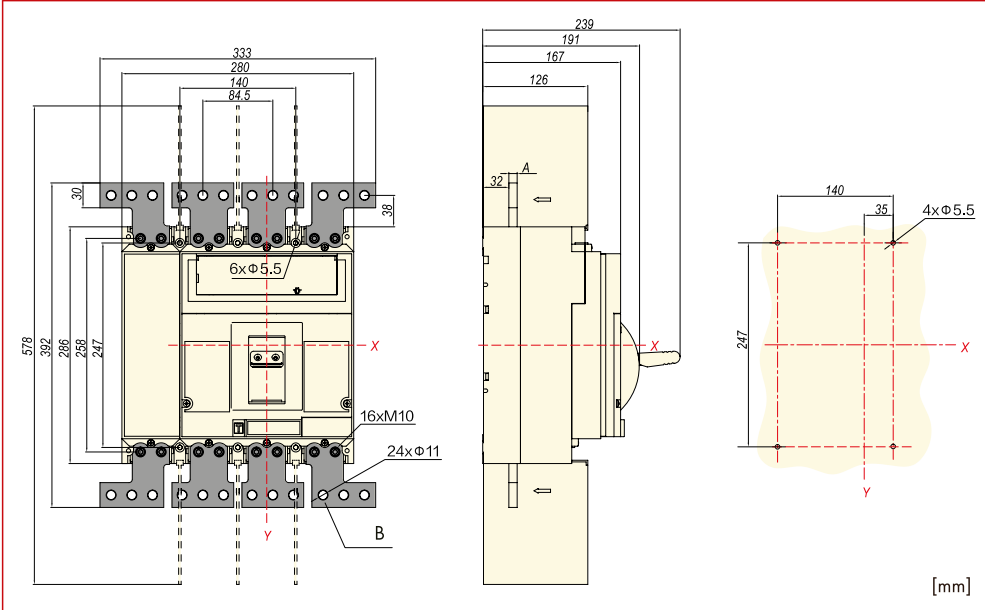
A	Top view
B	Connection extension
X	Horizontal centre
Y	Vertical centre

[mm]

Allows for a more flexible connection. Installation allows the distance between adjacent poles at the inputs and outputs of the circuit breaker to be increased.

Load Switches MX Size 4 - Accessories

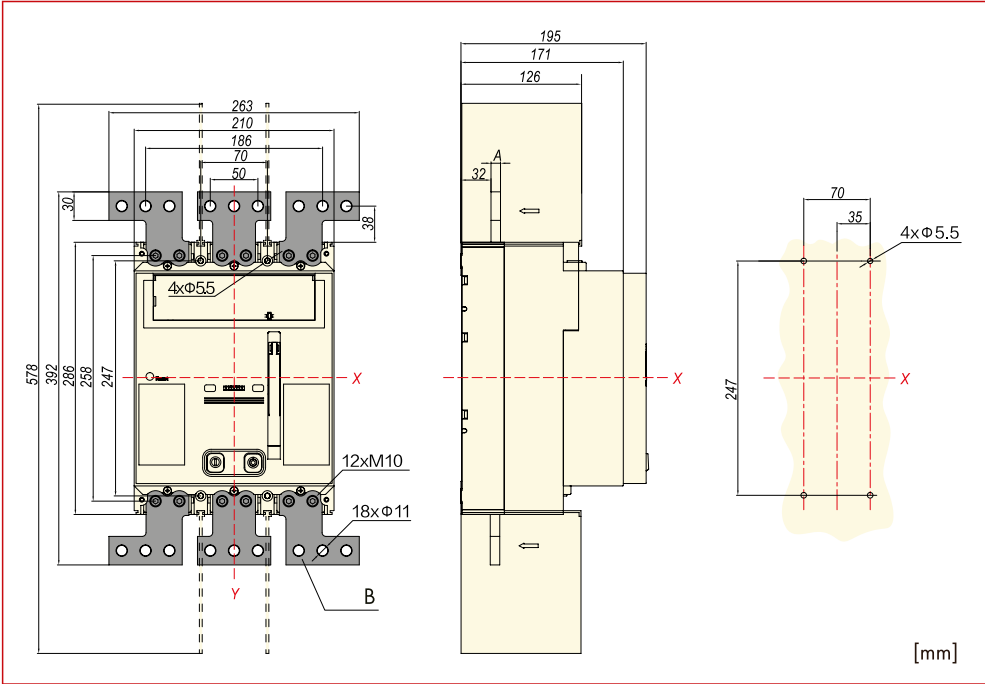
Connection Extension for MX4, 1000-1250A, 4 Pole



A	Top view
B	Connection extension
X	Horizontal centre
Y	Vertical centre

Allows for a more flexible connection. Installation allows the distance between adjacent poles at the inputs and outputs of the circuit breaker to be increased.

Connection Extension for MX4, 1600A, 3 Pole

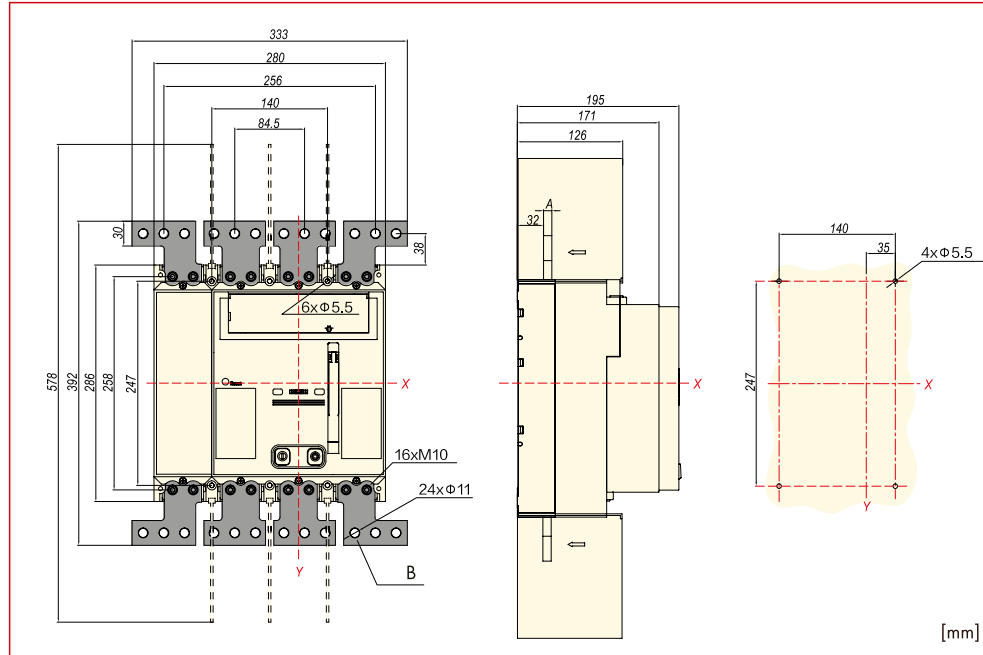


A	Top view
B	Connection extension
X	Horizontal centre
Y	Vertical centre

Allows for a more flexible connection. Installation allows the distance between adjacent poles at the inputs and outputs of the circuit breaker to be increased.

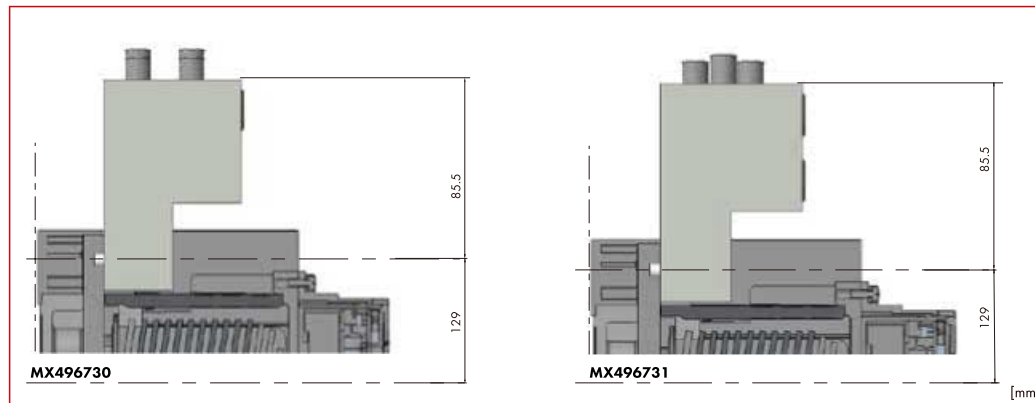
Load Switches MX Size 4 - Accessories

Connection Extension for MX4, 1600A, 4 Pole



Allows for a more flexible connection. Installation allows the distance between adjacent poles at the inputs and outputs of the circuit breaker to be increased.

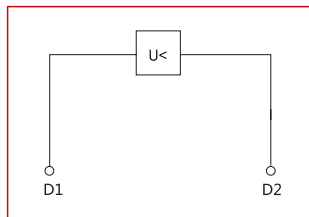
Tunnel Terminal for MX4, 3X95-300mm²/4X95-240mm²



Suitable for aluminum and Cu conductors. Allows the direct connection of bare conductors.

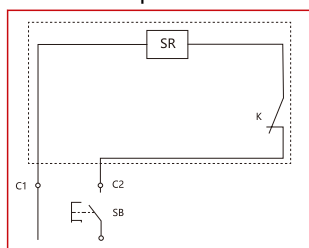
Load Switches MX Size 4 - Accessories

Undervoltage Release



Immediate triggering of circuit breakers or switch disconnectors when the supply voltage drops below 35% - 70%.
 Can be used for EMERGENCY STOP devices. Installed in the circuit breaker.
 Is built into the circuit breaker.
 If the undervoltage trigger is de-energized, contacting the switch main contacts during switch-on tests is safely prevented.

Shunt Trip



Immediate triggering of circuit breakers or switch disconnectors at voltage pulse or application of continuous voltage in the range of 70% to 110% of the rated control voltage. If the working current trigger is live, contacting the switch main contacts during switch-on tests is reliably prevented.

DESCRIPTION	AVAILABLE	ORDER NO.
Connecting technic, accessories		
Connection extension 3 pole for MX4, 1000-1250A, 6 pieces		MX490017
Connection extension 4 pole for MX4, 1000-1250A, 8 pieces		MX490018
Connection extension 3 pole for MX4, 1600A, 6 pieces		MX490019
Connection extension 4 pole for MX4, 1600A, 8 pieces		MX490020
Tunnel Terminal 3x95-300mm ² for MX4, 800-1250A, 1 piece		MX496730
Tunnel Terminal 4x95-240mm ² for MX4, 800-1250A, 1 piece		MX496731
Phase separator plates MX4		MX496870
Undervoltage release units, shunt-trips and accessories		
Under Voltage Release 220-240VAC for MX4		MX499471
Under Voltage Release 380-415VAC for MX4		MX499473
Shunt trip 220-240VAC for MX4		MX490154
Shunt trip 380-415VAC for MX4		MX491607
Shunt trip 24VDC for MX4		MX499736
Auxiliary contacts		
Auxiliary contact 1 CO		MX199411
Alarm contact 1 CO		MX199511

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MX110241	13	MX210237	31	MX290780	51	MX390781	82		
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MX120241	13	MX216241	39	MX299462	52	MX399838	82		
MX120431	7	MX216242	39	MX299471	52	MX410232	84		
MX120441	11	MX216243	39	MX299473	52	MX410233	84		
MX125231	9	MX216431	27	MX299481	52	MX410242	88		
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TOP WAREHOUSE MANAGEMENT IN OUR DISTRIBUTION CENTRE NEAR VIENNA



The new Schrack distribution centres is located just outside Vienna. The prominent appearance of the building with its unmistakable Schrack design highlights all product characteristics which are handled logistically in its interior. We consider availability the number 1 factor for your economic and business success!

- Over 12,000m² indoor storage space and an outdoor cable storage space of 2,500m²
- More than 15,000 items are stored ready for shipping
- Professional warehouse management by our top-trained staff



Look out for the icon signalling prompt availability for delivery



General Terms of Delivery

issued by the Austrian Electrical and Electronics Industry Association (FEEL)

1. Scope

1.1. These General Terms shall govern legal transactions between business enterprises, namely the delivery of commodities and, mutatis mutandis, the rendering of services. Software transactions are with precedence governed by the Software Conditions issued by the Austrian Electrical and Electronics Industry Association, assembly work by the Terms and Conditions for Assembly Work issued by the Austrian Power Current and Light Current Engineering Industry and/or (where applicable) the Terms and Conditions for the Assembly of Electrical Equipment used in Medicine issued by the Austrian Electrical and Electronics Industry (the current versions are available at www.feel.at).

1.2. Any departure from the terms and conditions mentioned in 1.1 above shall be valid only if expressly accepted in writing by Seller.

2. Submission of offers

2.1. Seller's offers shall be deemed offers without engagement.
2.2. Tender documents and project documentation must not be duplicated nor made available to third parties without the permission of Seller. They may be claimed back at any time and shall be returned to Seller immediately if the order is placed elsewhere.

3. Conclusion of contract

3.1. The contract shall be deemed concluded upon written confirmation by Seller of an order received or upon dispatch of a delivery.

3.2. Particulars appearing in catalogues, folders etc. as well as any oral or written statements shall only be binding if Seller makes express reference to them in the confirmation of the order.

3.3. Subsequent amendments of or additions to the contract shall be subject to written confirmation.

4. Prices

4.1. Prices shall be quoted ex works or ex Seller's warehouse without VAT, packing and packaging, loading, disassembly, take-back and proper recycling and disposal of waste electrical and electronic equipment for commercial purposes as defined by the Ordinance Regulating the Handling of Waste Electrical Equipment. Buyer shall be liable for any and all charges, taxes or other duties levied in respect of delivery. If the terms of delivery include transport to a destination designated by Buyer, transport costs as well as the cost of any transport insurance desired by Buyer shall be borne by the latter. Delivery does not, however, include unloading and subsequent handling. Packaging materials will be taken back only by express agreement.

4.2. Seller reserves the right to modify prices if the order placed is not in accordance with the offer submitted.

4.3. Prices are based on costs obtaining at the time of the first quotation. In the event that the costs have increased by the time of delivery, Seller shall have the right to adjust prices accordingly.

4.4. In carrying out repair orders, Seller shall provide all services deemed expedient and shall charge Buyer for the same on the basis of the work input and/or expenditures required. The same holds for any services or additional services the expediency of which becomes apparent only as the repair order is executed. In such an event special notification of Buyer shall not be required.

4.5. Expenses for estimates of costs of repair and maintenance or for expert valuations shall be invoiced to Buyer.

5. Delivery

5.1. The period allowed for delivery shall commence at the latest of the following dates:
a) the date of order confirmation by Seller;
b) the date of fulfilment by Buyer of all the conditions, technical, commercial and other, for which he is responsible;
c) the date of receipt by Seller of a deposit or security due before delivery of the goods in question.

5.2. Buyer shall obtain whatever licences or approvals may be required from authorities or third parties for the construction of plant and equipment. If the granting of such licences or approvals is delayed for any reason the delivery period shall be extended accordingly.

5.3. Seller may carry out, and charge Buyer for, partial or advance deliveries. If delivery on call is agreed upon, the commodity shall be deemed called off at the latest one year after the order was placed.

5.4. In case of unforeseeable circumstances or circumstances beyond the parties control, such as all cases of force majeure, which impede compliance with the agreed period of delivery, the latter shall be extended in any case for the duration of such circumstances; these include in particular armed conflicts, official interventions and prohibitions, delays in transport or customs clearance, damages in transit, energy shortage and raw materials scarcity, labour disputes, and default on performance by a major component supplier who is difficult to replace. The aforesaid circumstances shall be deemed to prevail irrespective of whether they affect Seller or his subcontractor(s).

5.5. If a contractual penalty for default of delivery was agreed upon by contracting parties when the contract was concluded, it shall be executed as follows, and any deviations concerning individual items shall not affect the remaining provisions: Where delay in performance can be shown to have occurred solely through the fault of Seller, Buyer may claim for each completed week of delay an indemnity

of at most one half of one per cent, a total of no more than 5 %, however, of the value of that part of the goods to be delivered which cannot be used on account of Seller's failure to deliver an essential part thereof, provided the Buyer has suffered a damage to the aforesaid extent. Assertion of rights of damages exceeding this extent is precluded.

6. Passage of risk and place of performance

6.1. Unless otherwise agreed, the delivery of goods is considered sold EXW in accordance with INCOTERMS® 2010.

6.2. For services, the place of performance shall be the place indicated in the written order confirmation, secondary to that at which the service is actually rendered by Seller. The risk in respect of such services or any part thereof shall pass to Buyer at the time the services have been rendered.

7. Payment

7.1. Unless otherwise agreed, one third of the purchase price shall fall due at the time of receipt by Buyer of the order confirmation of Seller, one third after half the delivery period has elapsed and the balance at the time of delivery. Irrespective thereof the turnover tax comprised in the amount of the invoice shall be paid within 30 days of the invoice date. If bankruptcy proceedings are instituted against the assets of Buyer or if an application for bankruptcy proceedings is not granted for insufficiency of assets, deliveries shall only be made against cash in advance.

7.2. In the case of part settlements the individual part payments shall fall due upon receipt of the respective invoices. The same shall apply to amounts invoiced for additional deliveries or resulting from additional agreements beyond the scope of the original contract, irrespective of the terms of payment agreed upon for the principal delivery.

7.3. Payment shall be made without any discount free Seller's domicile in the agreed currency. Drafts and checks shall be accepted on account of payment only, with all interest, fees and charges in connection therewith (such as collection and discounting charges) to be borne by Buyer.

7.4. Buyer shall not be entitled to withhold or offset payment on the grounds of any warranty claims or other counterclaims.

7.5. Payment shall be deemed to have been effected on the date at which the amount in question is at Seller's disposal.

7.6. If Buyer fails to meet the terms of payment or any other obligation arising from this or other legal transactions, Seller may without prejudice to his other rights
a) suspend performance of his own obligations until payments have been made or other obligations fulfilled, and exercise his right to extend the period of delivery to a reasonable extent,
b) call in debts arisen from this or any other legal transactions and charge default interest amounting to 1.25 % per month plus turnover tax for these amounts beginning with the due dates, unless Seller proves costs exceeding this.
c) only perform other legal transactions against cash in advance in the case of qualified insolvency, in other words, following two delays in payment.

In any case Seller has the right to invoice all expenses arising prior to a lawsuit, especially reminder charges and lawyer's fees.

7.7. Discounts or bonuses are subject to complete payment in due time.

7.8. Seller retains title to all goods delivered by him until receipt of all amounts invoiced including interests and charges. Buyer herewith assigns his claim out of a resale of conditional commodities, even if they are processed, transformed or combined with other commodities, to Seller to secure the latter's purchase money claim. In the case of resale granting respite Buyer shall have the power of disposal of the product under retention of ownership only with the proviso that upon reselling Buyer notifies the secondary buyer of the assignment for security or enters the assignment in his account books. Upon request Buyer has to notify the assigned claim and the debtor thereof to Seller, and to make all information and material required for his debt collection available and to notify the assignment to the third-party debtor. If the goods are attached or otherwise levied upon, Buyer shall draw attention to Seller's title and immediately inform Seller of the attachment or levy.

8. Warranty and acceptance of obligation to repair defects

8.1. Once the agreed terms of payment have been complied with, Seller shall, subject to the conditions hereunder, remedy any defect existing at the time of acceptance of the article in question whether due to faulty design, material or manufacture, that impairs the functioning of said article. From particulars appearing in catalogues, folders, promotional literature as well as written or oral statements which have not been included in the agreement no warranty obligations may be deduced.

8.2. Unless special warranty periods operate for individual items the warranty period shall be 12 months. These conditions shall also apply to any goods supplied, or services rendered in respect of goods supplied, that are firmly attached to buildings or the ground. The warranty period begins at the point of passage of risk acc. to paragraph 6.

8.3. For improved or exchanged parts, the warranty period shall start again, but shall end in any case 6 months after the original warranty period has expired.

8.4. If delivery or the performance of services is delayed for reasons outside the control of Seller, the warranty period shall begin 2 weeks after Seller is ready to deliver or perform services.

- 8.5. The foregoing warranty obligations are conditional upon the Buyer giving within a reasonable period notice in writing of any defects that have occurred and such notice reaching the Seller. Buyer shall prove within a reasonable period the presence of a defect, in particular he shall make available within a reasonable period to Seller all material and data in his possession. Upon receipt of such notice Seller shall, in the case of a defect covered by the warranty under 8.1 above, have the option to replace the defective goods or defective parts thereof or else to repair them on Buyer's premises or have them returned for repair, or to grant a fair and reasonable price reduction.
- 8.6. Any expenses incurred in connection with rectifying defects (e. g. expenses for assembly and disassembly, transport, waste disposal, travel and siteto-quarters time) shall be borne by Buyer. For warranty work on Buyer's premises Buyer shall make available free of charge any assistance, hoisting gear, scaffolding and sundry supplies and incidentals that may be required. Replaced parts shall become the property of Seller.
- 8.7. If an article is manufactured by Seller on the basis of design data, design drawings, models or other specifications supplied by Buyer, Seller's warranty shall be restricted to non-compliance with Buyer's specifications.
- 8.8. Seller's warranty obligation shall not extend to any defects due to assembly and installation work not undertaken by Seller, inadequate equipment, or due to non-compliance with installation requirements and operating conditions, overloading of parts in excess of the design values stipulated by Seller, negligent or faulty handling or the use of inappropriate materials, nor for defects attributable to material supplied by Buyer. Nor shall Seller be liable for damage due to acts of third parties, atmospheric discharges. Excess voltage and chemical influences. The warranty does not cover the replacement of parts subject to natural wear and tear. Seller accepts no warranty for the sale of used goods.
- 8.9. The warranty shall lapse immediately if, without written consent of Seller, Buyer himself or a third party not expressly authorised undertakes modifications or repairs on any items delivered.
- 8.10. Claims acc. to § 933b ABGB are struck by the statute of limitation with lapse of the period mentioned under point 8.2.
- 8.11. The provisions of sub-paragraphs 8.1 to 8.10 shall apply, mutatis mutandis, to all cases where the obligation to repair defects has to be accepted for other reasons laid down by law.
- 9. Withdrawal from contract**
- 9.1. Buyer may withdraw from the contract only in the event of delays caused by gross negligence on the part of Seller and only after a reasonable period of grace has elapsed. Withdrawal from contract shall be notified in writing by registered mail.
- 9.2. Irrespective of his other rights Seller shall be entitled to withdraw from the contract
- a) if the execution of delivery or the inception or continuation of services to be rendered under the contract is made impossible for reasons within the responsibility of Buyer and if the delay is extended beyond a reasonable period of grace allowed;
 - b) if doubts have arisen as to Buyer's creditworthiness and if same fails, on Seller's request, to make an advance payment or to provide adequate security prior to delivery, or
 - c) if, for reasons mentioned in 5.4, the period allowed for delivery is extended by more than half of the period originally agreed or by at least 6 months, or
 - d) if Buyer does not or does not properly meet the obligations imposed as per paragraph 13.
- 9.3. For the reasons given above withdrawal from the contract shall also be possible in respect of any outstanding part of the delivery or service contracted for.
- 9.4. If bankruptcy proceedings are instituted against Buyer or an application for bankruptcy proceedings is not granted for insufficiency of assets, Seller may withdraw from the contract without allowing a period of grace. If this withdrawal is taken, it shall take effect immediately upon the decision that the business will not be continued. If the business will be continued, a withdrawal shall not take effect until 6 months after the institution of bankruptcy proceedings or after an application for bankruptcy proceedings has not been granted for insufficiency of assets. In any case, the contract shall be terminated immediately unless the bankruptcy law to which Buyer is subject conflicts with this or if termination of the contract is necessary to prevent significant damages to Seller.
- 9.5. Without prejudice to Seller's claim for damages including expenses arising prior to a lawsuit, upon withdrawal from contract any open accounts in respect of deliveries made or services rendered in whole or in part shall be settled according to contract. This provision also covers deliveries or services not yet accepted by Buyer as well as any preparatory acts performed by Seller. Seller shall, however, have the option alternatively to require the restitution of articles already delivered.
- 9.6. Withdrawal from contract shall have no consequences other than those stipulated above.
- 9.7. The assertion of claims on the ground of *laesio enormis*, error, or lapse of purpose by the Buyer is excluded.
- 10. Disposal of waste electrical and electronic equipment**
- 10.1. The Buyer of electrical/electronic equipment for commercial purposes, incorporated in Austria, is responsible for the financing of the collection and treatment of waste electrical and electronic equipment as defined by the Ordinance Regulating the Handling of Waste Electrical Equipment, if he is himself the user of the electrical/electronic equipment. If the Buyer is not the end user, he shall transfer the full financial commitment to his customer by agreement and furnish proof thereof to the Seller.
- 10.2. The Buyer incorporated in Austria shall ensure that the Seller is provided with all information necessary to meet the Seller's obligations as manufacturer/importer, particularly according to §§ 11 and 24 of the Ordinance Regulating the Handling of Waste Electrical Equipment and the Waste Management Act.
- 10.3. The Buyer incorporated in Austria is liable vis-à-vis the Seller for any damage and other financial disadvantages incurred by Seller due to Buyer's failure to meet or fully meet his financing commitment or any other obligations according to Article 10. The Buyer shall bear the burden of proof of performance of this obligation.
- 11. Seller's liability**
- 11.1. Outside the scope of the Product Liability Act, Seller shall be liable only if the damage in question is proved to be due to intentional acts or acts of gross negligence, within the limits of statutory provisions. Seller's total liability in cases of gross negligence is limited to the net value of the order or EUR 500,000, depending on which amount is lower.
- 11.2. For each incident of damage, Seller shall be liable for 25% of the net value of the order or EUR 125,000, depending on which amount is lower.
- 11.3. Seller shall not be liable for damage due to acts of ordinary negligence nor for consequential damages or damages for pure economic loss, indirect damages, loss of production, financing costs, costs for replacement energy, loss of energy, data or information, loss of profits, loss of savings or interest, or damage resulting from third-party claims against buyer.
- 11.4. Seller shall not be liable for damages in case of non-compliance with instructions for assembly, commissioning and operation (such as are contained in instructions for use) or non-compliance with licensing requirements.
- 11.5. Claims that exceed the contractual penalties that were agreed on are excluded from the respective title. The provisions of paragraph 11 apply exclusively for all claims by Buyer against Seller, regardless of the legal basis or entitlement, and also apply to all employees, subcontractors and sub-suppliers of Seller.
- 12. Industrial property rights and copyrights**
- 12.1. Buyer shall indemnify Seller and hold him harmless against any claims for any infringement of industrial property rights raised against him if Seller manufactures an article pursuant to any design data, design drawings, models or other specifications made available to him by Buyer.
- 12.2. Design documents such as plans and drawings and other technical specifications as well as samples, catalogues, prospectuses, pictures and the like shall remain the intellectual property of Seller and are subject to the relevant statutory provisions governing reproduction, imitation, competition etc. The provisions of 2.2 above shall also cover design documents.
- 13. Compliance with export provisions**
- 13.1. When passing on goods delivered by Seller to third parties (as well as any related documentation, regardless of the method of provision or the services performed by Seller [including technical support of any kind]), Buyer must comply with the applicable regulations of national and international (re-)export provisions. In any case, Buyer must observe the (re-)export provisions of Seller's country of residence, the European Union and the United States of America.
- 13.2. If necessary for export controls, Buyer must provide Seller with all necessary information immediately after being requested to do so, for example, information about the final recipient, final destination and purpose of the goods or services.
- 14. General**
- Should individual provisions of the contract or of these provisions be invalid the validity of the other provisions shall not be affected. The invalid provision shall be replaced by a valid one, which comes as close to the target goal as possible.
- 15. Jurisdiction and applicable law**
- Any litigations arising under the contract including litigations over the existence or non-existence thereof shall fall within the exclusive jurisdiction of the competent court at Seller's domicile; the competent court of the Bezirksgericht Innere Stadt, Vienna, shall have exclusive jurisdiction if Seller is domiciled in Vienna. The contract is subject to Austrian law excluding the referral rules. Application of the UN Convention on Contracts for the International Sale of Goods is renounced.
- 16. Proviso**
- The execution of the contract by Seller is subject to the condition that there are no obstacles standing in the way of execution due to national or international (re-)export provisions, and especially no embargos and/or other sanctions.

Last revised in September 2011

THE COMPANY

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