CIRCUIT BREAKER 3 POLE UP TO 300A WITH THERMAL MAGNETIC RELEASE TYPES MC2B-A, MC2N-A, MC2H-A



- For system and line protection
- Adjustable overload release I_r: 0,8 1 x I_n (factory setting 0,8 x I_n)
- Adjustable short-circuit release I_i : $6-10 \times I_n$ (factory setting $6 \times I_n$); except MC.-A40: $8-10 \times I_n$
- Screw terminals as standard, box terminals as accessories
- Breaking capacity 25 / 36 / 50 / 150 kA at 415 V 50/60 Hz
- Meets IEC/EN 60947-2
- Rated uninterrupted current = Rated current

	SETTING	RANGE		
rated current/	OVERLOAD-	SHORT CIRCUIT-	TYPE	ORDER NO.
BREAKING CAPACITY	RELEASE (A)	RELEASE (A)		
3 POLE (BASIC BREAKING CAPACITY) 25 kA				
160 A/25 kA	125160	9601600	MC2B-A160	MC216131
200 A/25 kA	160200	12002000	MC2B-A200	MC220131
250 A/25 kA	200250	15002500	MC2B-A250	MC225131
300 A/25 kA	240300	20002500	MC2B-A300	MC230131
3 POLE (COMFORT SWITCHING CAPACITY) 36 kA				
160 A/36 kA	125160	9601600	MC2C-A160	MC216431
200 A/36 kA	160200	12002000	MC2C-A200	MC220431
250 A/36 kA	200250	15002500	MC2C-A250	MC225431
300 A/36 kA	240300	20002500	MC2C-A300	MC230431
3 POLE (NORMAL BREAKING CAPACITY) 50 kA 160 A/50 kA	125160	9601600	MC2N-A160	MC216231
200 A/50 kA 250 A/50 kA	200250	12002000	MC2N-A200 MC2N-A250	MC220231
300 A/50 kA	240300	20002500	MC2N-A300	MC230231
3 POLE (HIGH BREAKING CAPACITY) 150 kA				
20 A/150 kA	1520	fix 350	MC2H-A20	MC202331
25 A/150 kA	2025	fix 350	MC2H-A25	MC205331
32 A/150 kA	2532	fix 350	MC2H-A32	MC232331
40 A/150 kA	3240	320400	MC2H-A40	MC240331
50 A/150 kA	4050	300500	MC2H-A50	MC250331
63 A/150 kA	5063	380630	MC2H-A63	MC263331
80 A/150 kA	6380	480800	MC2H-A80	MC280331
100 A/150 kA	80100	6001000	MC2H-A100	MC210331
125 A/150 kA	100125	7501250	MC2H-A125	MC212331
160 A/150 kA	125160	9601600	MC2H-A160	MC216331
200 A/150 kA	160200	12002000	MC2H-A200	MC220331
250 A/150 kA	200250	15002500	MC2H-A250	MC225331
300 A/150 kA	240300	20002500	MC2H-A300	MC230331

CIRCUIT BREAKER 4 POLE UP TO 300A WITH THERMAL MAGNETIC RELEASE TYPES MC2B-4-A, MC2N-4-A, MC2H-4-A



- For system and line protection
- Adjustable overload release I_r: 0,8 1 x I_n (factory setting 0,8 x I_n)
- Adjustable short-circuit release I_i: 6 10 x I_n (factory setting 6 x I_n);
 except MC.-A40: 8 10 x I_n
- Screw terminals as standard, box terminals as accessories
- Breaking capacity 25 / 50 / 150 kA at 415 V 50/60 Hz
- Meets IEC/EN 60947-2
- Rated uninterrupted current = Rated current

	SETTING	RANGE		
rated current/	OVERLOAD-	SHORT CIRCUIT-	TYPE	ORDER NO.
Breaking Capacity	RELEASE (A)	RELEASE (A)		
4 POLE (BASIC BREAKING CAPACITY) 25 kA				
160 A/25 kA	125160	9601600	MC2B-4-A160	MC216141
200 A/25 kA	160200	12002000	MC2B-4-A200	MC220141
250 A/25 kA	200250	15002500	MC2B-4-A250	MC225141
300 A/25 kA	240300	20002500	MC2B-4-A300	MC230141
4 POLE (NORMAL BREAKING CAPACITY) 50 ka				
160 A/50 kA	125160	9601600	MC2N-4-A160	MC216241
200 A/50 kA	160200	12002000	MC2N-4-A200	MC220241
250 A/50 kA	200250	15002500	MC2N-4-A250	MC225241
300 A/50 kA	240300	20002500	MC2N-4-A300	MC230241
4 POLE (HIGH BREAKING CAPACITY) 150 kA				
4 POLE (HIGH BREAKING CAPACITY) 150 kA 20 A/150 kA	1520	fix 350	MC2H-4-A20	MC202341
4 POLE (HIGH BREAKING CAPACITY) 150 kA 20 A/150 kA 25 A/150 kA	1520 2025	fix 350 fix 350	MC2H-4-A20 MC2H-4-A25	MC202341 MC205341
4 POLE (HIGH BREAKING CAPACITY) 150 kA 20 A/150 kA 25 A/150 kA 32 A/150 kA	1520 2025 2532	fix 350 fix 350 fix 350	MC2H-4-A20 MC2H-4-A25 MC2H-4-A32	MC202341 MC205341 MC232341
4 POLE (HIGH BREAKING CAPACITY) 150 kA 20 A/150 kA 25 A/150 kA 32 A/150 kA 40 A/150 kA	1520 2025 2532 3240	fix 350 fix 350 fix 350 320400	MC2H-4-A20 MC2H-4-A25 MC2H-4-A32 MC2H-4-A40	MC202341 MC205341 MC232341 MC240341
4 POLE (HIGH BREAKING CAPACITY) 150 kA 20 A/150 kA 25 A/150 kA 32 A/150 kA 40 A/150 kA 50 A/150 kA	1520 2025 2532	fix 350 fix 350 fix 350	MC2H-4-A20 MC2H-4-A25 MC2H-4-A32	MC202341 MC205341 MC232341
4 POLE (HIGH BREAKING CAPACITY) 150 kA 20 A/150 kA 25 A/150 kA 32 A/150 kA 40 A/150 kA	1520 2025 2532 3240	fix 350 fix 350 fix 350 320400	MC2H-4-A20 MC2H-4-A25 MC2H-4-A32 MC2H-4-A40	MC202341 MC205341 MC232341 MC240341
4 POLE (HIGH BREAKING CAPACITY) 150 kA 20 A/150 kA 25 A/150 kA 32 A/150 kA 40 A/150 kA 50 A/150 kA	1520 2025 2532 3240 4050	fix 350 fix 350 fix 350 320400 300500	MC2H-4-A20 MC2H-4-A25 MC2H-4-A32 MC2H-4-A40 MC2H-4-A50	MC202341 MC205341 MC232341 MC240341 MC250341
4 POLE (HIGH BREAKING CAPACITY) 150 kA 20 A/150 kA 25 A/150 kA 32 A/150 kA 40 A/150 kA 50 A/150 kA	1520 2025 2532 3240 4050 5063	fix 350 fix 350 fix 350 320400 300500 380630	MC2H-4-A20 MC2H-4-A25 MC2H-4-A32 MC2H-4-A40 MC2H-4-A63	MC202341 MC205341 MC232341 MC240341 MC250341
4 POLE (HIGH BREAKING CAPACITY) 150 kA 20 A/150 kA 25 A/150 kA 32 A/150 kA 40 A/150 kA 50 A/150 kA 63 A/150 kA	1520 2025 2532 3240 4050 5063 6380	fix 350 fix 350 fix 350 320400 300500 380630 480800	MC2H-4-A20 MC2H-4-A25 MC2H-4-A32 MC2H-4-A40 MC2H-4-A50 MC2H-4-A63 MC2H-4-A80	MC202341 MC205341 MC232341 MC240341 MC250341 MC280341
4 POLE (HIGH BREAKING CAPACITY) 150 kA 20 A/150 kA 25 A/150 kA 32 A/150 kA 40 A/150 kA 50 A/150 kA 80 A/150 kA	1520 2025 2532 3240 4050 5063 6380 80100	fix 350 fix 350 fix 350 320400 300500 380630 480800 6001000	MC2H-4-A20 MC2H-4-A25 MC2H-4-A32 MC2H-4-A40 MC2H-4-A63 MC2H-4-A63 MC2H-4-A80 MC2H-4-A100	MC202341 MC205341 MC232341 MC240341 MC250341 MC263341 MC280341
4 POLE (HIGH BREAKING CAPACITY) 150 kA 20 A/150 kA 25 A/150 kA 32 A/150 kA 40 A/150 kA 50 A/150 kA 63 A/150 kA 80 A/150 kA 100 A/150 kA	1520 2025 2532 3240 4050 5063 6380 80100 100125	fix 350 fix 350 fix 350 320400 300500 380630 480800 6001000 7501250	MC2H-4-A20 MC2H-4-A25 MC2H-4-A32 MC2H-4-A40 MC2H-4-A50 MC2H-4-A63 MC2H-4-A80 MC2H-4-A100 MC2H-4-A125	MC202341 MC205341 MC232341 MC240341 MC250341 MC263341 MC280341 MC210341
4 POLE (HIGH BREAKING CAPACITY) 150 kA 20 A/150 kA 25 A/150 kA 32 A/150 kA 40 A/150 kA 50 A/150 kA 63 A/150 kA 80 A/150 kA 100 A/150 kA 125 A/150 kA	1520 2025 2532 3240 4050 5063 6380 80100 100125 125160	fix 350 fix 350 fix 350 320400 300500 380630 480800 6001000 7501250 9601600	MC2H-4-A20 MC2H-4-A25 MC2H-4-A32 MC2H-4-A40 MC2H-4-A50 MC2H-4-A63 MC2H-4-A80 MC2H-4-A100 MC2H-4-A100 MC2H-4-A125 MC2H-4-A160	MC202341 MC205341 MC232341 MC240341 MC250341 MC263341 MC210341 MC212341 MC216341



■ MOTOR PROTECTION, 3 POLE UP TO 200A WITH THERMAL MAGNETIC RELEASE TYPES MC2B-M, MC2N-M



■ SCHRACK INFO

- Adjustable overload release Ir: 0,8 1 x In (factory setting 0,8 x In); with phase sensitivity, tripping class 10 A (2s < Tp \leq 10s)
- Adjustable short-circuit release Ii: 8 14 x In (factory setting 12 x In)
- Screw terminals as standard, box terminals as accessories
- Breaking capacity 25 / 50 kA at 415 V 50/60 Hz
- Meets IEC/EN 60947-4 and IEC/EN 60947-2
- Meet all requirements of ultilization category AC3 at 400 VAC

			SETTING I	RANGE			
NOMINAL CURRENT/	POWER RATING A	C3 CURRENT AC3	OVERLOAD-	SHORT CIRCUIT-	TYPE	ORDER NO.	
BREAKING CAPACITY	kW	А	RELEASE (A)	RELEASE (A)			
3 POLE (BASIC BREAKING CAPACITY) 25 kA							
125 A/25 kA	55	99	100125	10001750	MC2B-M125	MC212136	
160 A/25 kA	75	134	125160	12802240	MC2B-M160	MC216136	
200 A/25 kA	110	196	160200	16002800	MC2B-M200	MC220136	
3 POLE (NORMAL BREA	AKING CAPACITY) 50	١ ١ ٨					
125 A/50 kA	55	99	100125	10001750	MC2B-M125	MC212236	
160 A/50 kA	75	134	125160	12802240	MC2N-M160	MC216236	
200 A/50 kA	110	196	160200	16002800	MC2N-M200	MC220236	



■ CIRCUIT BREAKER UP TO 250A 3-/4 POLE WITH DELAYED ELECTRONIC RELEASE. TYPES MC2N-VE, MC2H-VE, MC2N-4-VE, MC2H-4-VE



- System and line protection
- Selective and generator protection
- 3 and 4 pole versions
- RMS value and "thermal memory"
- Adjustable overload release Ir: 0,5 1 x In (factory setting 0,8 x In)
- Adjustable time delay setting to overcome current peaks tr. 2 20 s at 6 x lr as well as infinity (factory setting 10s)
- Adjustable delayed short-circuit releases Isa: 2 10 x Ir (factory setting 6 x Ir)
- Adjustable time delay tsd: Levels: 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms (factory setting 0)
- Non-delayed short-circuit release Ii: permanent 12 x In)
- Screw terminals as standard, box terminals as accessories
- Meets IEC/EN 60947-2
- Rated uninterrupted current = Rated current

	SETTING RANGE				
RATED CURRENT/	OVERLOAD-	SHORT-CIRC	UIT RELEASE	TYPE	ORDER NO.
BREAKING CAPACITY	RELEASE (A)	UNDELAYED (A) DELAYED (A)		
3 POLE (NORMAL BREAKING CAPACITY) 50 kA					
100 A/50 kA	50100	1200	1001000	MC2N-VE100	MC210233
160 A/50 kA	80160	1920	1601600	MC2N-VE160	MC216233
250 A/50 kA	125250	3000	2502500	MC2N-VE250	MC225233
3 POLE (HIGH BREAKING CAPACITY) 150 kA					
100 A/150 kA	50100	1200	1001000	MC2H-VE100	MC210333
160 A/150 kA	80160	1920	1601600	MC2H-VE160	MC216333
250 A/150 kA	125250	3000	2502500	MC2H-VE250	MC225333
4 POLE (NORMAL BREAKING CAPACITY) 50 kA					
100 A/50 kA	50100	1200	1001000	MC2N-4-VE100	MC210243
160 A/50 kA	80160	1920	1601600	MC2N-4-VE160	MC216243
250 A/50 kA	125250	3000	2502500	MC2N-4-VE250	MC225243
4 POLE (HIGH BREAKING CAPACITY) 150 kA					
100 A/150 kA	50100	1200	1001000	MC2H-4-VE100	MC210343
160 A/150 kA	80160	1920	1601600	MC2H-4-VE160	MC216343
250 A/150 kA	125250	3000	2502500	MC2H-4-VE250	MC225343



■ MOTOR PROTECTION, 3 POLE UP TO 220A WITH ELECTRONIC RELEASE TYPES MC2N-ME, MC2H-ME



220 A/100 kA

110

■ SCHRACK INFO

- Adjustable overload release Ir: 0,5 1 x In (factory setting 0,8 x In)
- Adjustable short-circuit release Ii: 2 14 x In (factory setting 12 x In)
- Adjustable time delay setting to overcome current peaks t_r: 2 20 s at 6 x l_r, as well as infinity (without overload release), (factory setting 10 s)
- RMS value and "thermal memory"
- · Phase sensitivity

196

- Screw terminals as standard, box terminals as accessories
- Meets IEC/EN 60947-4 and IEC/EN 60947-2
- Meet all requirements of ultilization category AC3 at 400 VAC

			SETTING I	RANGE		
NOMINAL CURRENT/	POWER RATING A	C3 CURRENT AC3	OVERLOAD-	SHORT CIRCUIT-	TYPE	ORDER NO.
BREAKING CAPACITY	kW	Α	RELEASE (A)	RELEASE (A)		
3 POLE (NORMAL BREAKING CAPACITY) 50 kA						
90 A/50 kA	45	81	4590	901260	MC2N-ME90	MC290237
140 A/50 kA	75	134	70140	1401960	MC2N-ME140	MC214237
220 A/50 kA	110	196	110220	2203080	MC2N-ME220	MC222237
3 POLE (HIGH BREAKI	NG CAPACITY) 100	kA				
90 A/100 kA	45	81	4590	901260	MC2H-ME90	MC290337
140 A/100 LA	75	13/	70 140	140 1960	MC2H-ME140	MC21/337

110...220

220...3080

MC2H-ME220

MC222337



SWITCH DISCONNECTOR UP TO 250A TYPES MC2-PN, MC2-PN-4, MC2-N, MC2-N-4



- 3- and 4-pole versions
- Rated uninterrupted current up to 250A
- Switch disconnector, MC2-PN type, two switch positions 0/I, cannot be tripped remotely
- Switch disconnector MC2-N, with trip setting "0"; "+"; "I", can be tripped remotely with undervoltage/shunt release
- Screw terminals as standard, box terminals as accessories
- Remote trip MC2-N can also be combined with remote operator MC-XR
- Main switch characteristics including positive drive according to IEC/EN 60204 & VDE 0113
- Isolating characteristics according to IEC/EN 60947-3 and VDE 0660. Protection against accidental contact accord. to VDE 0160 Part 100
- Meets IEC/EN 60947-2
- Rated uninterrupted current = Rated current
- Rated short-circuit breaking capacity values: I_{cm} 5,5kA
- Rated short-time withstand current: I_{cw} 3,5kA

rated uninterrupted current	MAX. BACK-UP FUSE (gL)	TYPE	ORDER NO.
	FOR SWITCH DISCONNECTOR (Ag	L)	
3 POLE CANNOT BE TRIPPED REMOTELY			
160 A	250	MC2-PN-160	MC216034
200 A	250	MC2-PN-200	MC220034
250 A	250	MC2-PN-250	MC225034
4 POLE CANNOT BE TRIPPED REMOTELY			
160 A	250	MC2-PN-4-160	MC216044
200 A	250	MC2-PN-4-200	MC220044
250 A	250	MC2-PN-4-250	MC225044
250 A	250	MC2-PN-4-250	MC225044
	250	MC2-PN-4-250	MC225044
3 POLE CAN BE TRIPPED REMOTELY	250 250	MC2-PN-4-250 MC2-N-160	MC225044 MC216035
3 POLE CAN BE TRIPPED REMOTELY			
3 POLE CAN BE TRIPPED REMOTELY 160 A 200 A	250	MC2-N-160	MC216035
	250 250	MC2-N-160 MC2-N-200	MC216035 MC220035
3 POLE CAN BE TRIPPED REMOTELY 160 A 200 A	250 250	MC2-N-160 MC2-N-200	MC216035 MC220035
3 POLE CAN BE TRIPPED REMOTELY 160 A 200 A 250 A 4 POLE CAN BE TRIPPED REMOTELY	250 250	MC2-N-160 MC2-N-200	MC216035 MC220035
3 POLE CAN BE TRIPPED REMOTELY 160 A 200 A 250 A	250 250 250	MC2-N-160 MC2-N-200 MC2-N-250	MC216035 MC220035 MC225035



RESIDUAL CURRENT (RCD) RELEASE UP TO 250A TYPES MC2-4-XFI, MC2-4-XFIA



SCHRACK INFO

- Direct mounting on 4 pole MC2 circuit breaker and MC2-N switch disconnector
- Type MC2-4-XFI pulse current sensitive accord. to core-balance principle
- Specifications to IEC/EN 60947-2
- Bottom mounting up to 250 A

■ TECHNICAL DATA

- Independent of mains- and auxiliary voltage, $U_e = 280 \text{ V} 690 \text{ V}$ 50/60 Hz
- Auxiliary contact: 1 N/O, 1 N/C reset via reset feature
- Type XFI(A)30: Rated fault current I_{An} = 0,03 A, suitable for human protection to Annex B of IEC/EN 60947-2 and VDE 664 Parts 2 and 3
- Type XFI: Rated fault current I_{An} = 0,1-0,3-1-3 A, Type XFIA: Rated fault current I_{An} = 0,1-0,3-1 A, time-delay tv = 60-150-300-450 ms,
 AC/DC current sensitivity accord. to core-balance principle (0–100 kHz)
- Internal supply voltage $U_e = 50-400 \text{ V}$
- Note that response threshold is dependent on frequency! (See Frequency response charcteristic curve, Page 245).

DESCRIPTION	TYPE	ORDER NO.
4 POLE BOTTOM MOUNTING PULSE-CURRENT SENSITIVE		
FI-human protection 30 mA lan for MC2-4	MC2-4-XFI30	MC296719V2
FI 0.1-3 A I _{An} for MC2-4	MC2-4-XFI	MC296720V2

A POLE POTTOM MOLINITING AC/DC CLIPPENT SENICITIVITY		
4 POLE BOTTOM MOUNTING AC/DC CURRENT SENSITIVITY	LICO I VIII LOO	
4 POLE BOTTOM MOUNTING AC/DC CURRENT SENSITIVITY FI-human protection 30 mA lan for MC2-4	MC2-4-XFIA30	MC292345V2



SOCKET UND PLUG-IN MODULE FOR MC2



SCHRACK INFO

- 3- and 4-pole versions
- For circuit breaker MC2 and switch disconnector MC2-N
- · Plug-in module only available in combination with switch
- Socket can be ordered separately, available pre-assembled
- Order control circuit plug unit separately

■ TECHNICAL DATA

In max. at 40 °C:
 230A MC2
 250A MC2-E (electronic release)

DESCRIPTION	TYPE	ORDER NO.
SOCKET		
Socket, 3 pole	MC2-XSVS	MC296699
Socket, 4 pole	MC2-4-XSVS	MC296700

PLUG-IN MODULE

Plug-in module, 3 pole (add an S to end of switch part number if supplied with switch)

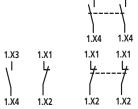
Plug-in module, 4 pole (add an S to end of switch part number if supplied with switch)

ACCESSORIES FOR PLUG-IN STYLE ASSEMBLY MC2/MC2-N

Control circuit unit for auxiliary contacts, undervoltage-/shunt release	MC2-XSVHI	MC296705
Control circuit unit for remote operator	MC2-XSVR	MC296706

STANDARD AUXILIARY CONTACT / TRIP-INDICATING AUXILIARY CONTACT TYPE M22





1.X3

SCHRACK INFO

- Breaking with the main contacts, used for indicating and interlocking tasks
- General trip indication "+" with trip due to voltage release, overload release or short-circuit-release

■ TECHNICAL DATA

Breaking capacity: AC15: 4 A / 230 VAC

DC13: 3 A / 24 VDC DC13: 0,3 A / 220 VDC

TIPS & TRICKS

The trip-indicating auxiliary contact is the same contact as the standard auxiliary contact. It derives its function from where it is installed (alarm contact on left).

Maximum component installation with auxillary contacts: 1 x Standard auxiliary contact (HIN) M22-K.

1 x Trip-indicating contact (HIA) M22-CK.

DESCRIPTION	ТҮРЕ	ORDER NO.
1 NO contact with screw terminals	M22-K10	MM216376
1 NC contact with screw terminals	M22-K01	MM216378
2 NO contacts with cage clamp terminals	M22-CK20	MM107898
2 NC contacts with cage clamp terminals	M22-CK02	MM107899
1 NO + 1 NC contact with cage clamp terminals	M22-CK11	MM107940



EARLY-MAKE AUXILIARY CONTACT TYPE MC2-XHIVL





SCHRACK INFO

For interlock- and load-shedding circuits as well as for early make of under-voltage release in main switch/Emergency stop applications.

■ TECHNICAL DATA

- Early-make during switch on and off (manual switch): approx. 20 ms
- Not in connection with undervoltage release MC2-XU... or shunt release MC2-XA...
- Breaking capacity: AC15: 4 A / 230 VAC

DC13: 3 A / 24 VDC DC13: 0,3 A / 220 VDC

■ TIPS & TRICKS

Maximum component installation with auxillary contacts: 1 x early-make auxiliary contact

DESCRIPTION	TYPE	ORDER NO.
Early-make auxiliary contact, 2 N/O	MC2/3-XHIV	MC299430

UNDERVOLTAGE RELEASE TYPES MC2-XU





■ SCHRACK INFO

- Non-delayed breaking of circuit breaker MC/ switch disconnector MC-N when the control voltage drops below 35 % - 70% Us.
- For use in Emergency stop devices in connection with Emergency stop buttons
- Installed in breaker
- Without auxiliary contact

■ TIPS & TRICKS

When the undervoltage release is de-energized, accidental contact with the main contacts of the switch is safely prevented during attempts to switch on. Undervoltage releases cannot be installed at the same time with shunt releases or early-make auxiliary contact, type MC2-XHIV.

VOLTAGE		ТҮРЕ	ORDER NO.
24 VAC	Screw terminals	MC2/3-XU24AC	MC299491
24 VDC	Screw terminals	MC2/3-XU24DC	MC299509
208-240 V AC	Screw terminals	MC2/3-XU208-240AC	MC299499
380-440 V AC	Screw terminals	MC2/3-XU380-440AC	MC299501

Other voltage variants available upon request.

UNDERVOLTAGE RELEASE WITH TWO EARLY-MAKE AUXILIARY CONTACTS TYPES MC2-XUHIV





SCHRACK INFO

- With 2 early-make auxillary contacts
- For early-make of the undervoltage release in main switch applications and for interlock- and load-shedding circuits
- Installed in breaker
- Other voltages and connection versions available on request

■ TIPS & TRICKS

When the undervoltage release is de-energized, accidental contact with the main contacts of the switch is safely prevented during attempts to switch on. Early-make of auxillary contacts during switch on and off (20ms). Undervoltage releases cannot be installed simultaneously with shunt releases or early-make auxiliary contact, type MC2-XHIV.

VOLTAGE		ТҮРЕ	ORDER NO.
208 - 240 VAC	screw terminals	MC2/3-XUHIV230V	MC299591
380 - 440 VAC	screw terminals	MC2/3-XUHIV400V	MC299594

Other voltage variants available upon request.

UNDERVOLTAGE RELEASE, OFF-DELAY TYPES MC-UVU, MC-XUV







SCHRACK INFO

 Voltage drops less than 0,07–16s do not cause MC circuit breakers or N switch disconnectors to trip.

■ TECHNICAL DATA

- Time-delay adjustable between 70 ms 4 s
- With additional external capacitor: $30.000~\mu\text{F} \ge 35~V~to~8~s$ $90.000~\mu\text{F} \ge 35~V~to~16~s$
- 1 x special release MC2-XUV required.
- Cannot be installed simultaneously with early-make auxiliary contact MC2-XHIV... or shunt release MC2-XA....
- Time-delay device for separate mounting (Fastening: DIN rail or screws).
- For other operating voltages, please use a control transformer.

DESCRIPTION	ТҮРЕ	ORDER NO.
Time-delay unit	MC-UVU	MC190154
Special undervoltage release for time-delay unit MC2	MC2/3-XUV	MC299527

Other voltage variants available upon request.



SHUNT RELEASE TYPES MC2-XA





SCHRACK INFO

- Without auxiliary contact
- Switches are tripped by a voltage pulse or by the application of uninterrupted voltage

■ TECHNICAL DATA

When the shunt release is energized, accidental contact with the main contacts of the switch is safely prevented during attempts to switch on. Shunt release cannot be installed simultaneously with undervoltage releases or early-make auxiliary contact MC1-XHIV.

VOLTAGE	TYPE	ORDER NO.
24 VAC/DC	MC2/3-XA24AC/DC	MC299754
110 VAC/DC	MC2/3-XA110AC/DC	MC299760
208 - 250 VAC/DC	MC2/3-XA230AC/DC	MC299763

Other voltage variants available upon request.

REMOTE OPERATOR FOR MC2



SCHRACK INFO

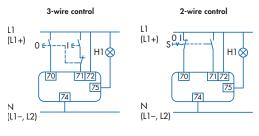
- Remote operator can be combined with circuit breaker MC and switch disconnector MC-N, but not with switch disconnector MC-PN.
- Do not deactivate switch simultaneously via remote control and trip via undervoltage/ shunt release.
- 1 standard auxiliary contact M22... necessary (included).

■ TECHNICAL DATA

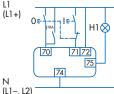
- On/Off breaking and reset by means of 2-wire or 3-wire control.
- Can be synchronized
- Breaking time On: ≤ 60 ms
- Local manual breaking possible

- Pause between Off and On: 3 secs.
 Command is ignored
- Function of Terminal 75: Ready for activation signal when the cover is closed and not locked.
 AC-15: 2 A/400 V, DC-13: 0,2 A/220 V

CIRCUIT DIAGRAMS



3-wire control with automatic return to 0 position after the switch has tripped via auxiliary contact



■ BREAKING CYCLE



VOLTAGE	TYPE	ORDER NO.
208 - 240 V AC for synchronisation and interlock	MC2-XR208-240AC	MC299832
208 - 240 V AC not for synchronisation and interlock	MC2-XRD208-240AC	MC299833
Extra cover for 4-pole switches	MC2-XAVPR	MC296677

MECHANICAL INTERLOCK FOR (DOOR COUPLING) ROTARY HANDLES FOR MC2



■ SCHRACK INFO

Rotary handle on switch or door coupling rotary handle additionally required.Cannot be combined with remote operator or door frame.

At least 2 interlocking modules are required in order to construct a mechanical interlocking circuit. See Page 142 for possible combinations and variations of interlocking circuits. Bowden cable to be ordered separately.

DESCRIPTION	TYPE	ORDER NO.
Mechanical interlock	MC2-XMV	MC291582
Bowden cable 225 mm	MC-XBZ225	MC191585
Bowden cable 600 mm	MC-XBZ600	MC191586
Bowden cable 1000 mm	MC-XBZ1000	MC191587

MECHANICAL INTERLOCK WITH REMOTE OPERATOR FOR MC2





■ SCHRACK INFO

- For 2 switches of the same or next frame size side by side
- Side-by-side mounting
- Mounted on top of each other, long version
- Contains parts for 2 switches
- Remote operator also required
- For maximum breaking distance, see Page 143

NOTES

Cannot be combined with rotary handles, door coupling rotary handles and early-make auxiliary contacts.

DESCRIPTION	TYPE	ORDER NO.
Mechanical interlock for MC2	MC2-XMVR	MC294543
Mechanical interlock for MC2 long version	MC2-MVRL	MC294548
Mechanical interlock for MC2/3	MC2/3-XMVR	MC294544
Mechanical interlock for MC2/3, long version	MC2/3-XMVRL	MC294549

ROTARY HANDLES DIRECTLY ON SWITCH FOR MC2



SCHRACK INFO

- Complete with rotary drive
- Can also be combined with door frame

■ TECHNICAL DATA

Available in the following versions:

Type MC.-XDV

Lockable in the "0" position (up to three padlocks), black/grey

Type MC.-XDVR

Lockable in the "0" position (up to three padlocks), Emergency stop red/yellow

Type MC.-XDTV

Lockable in the "0" position on handle, modification also available in "1" position, black/grey

Type MC.-XDTVR

Lockable in "0" position, Emergency Stop red/yellow

Version comes with door interlock:

- Door frame supplied with door interlock
- Rotary handle can be rotated 90° for switches mounted horizontally
- In the ON position, can be defeated from the outside using a 1 mm pin
- Cannot be defeated in the locked OFF and ON positions
- Door can be opened in OFF
- Can only be switched on when door closed

DESCRIPTION	TYPE	ORDER NO.
Lockable rotary handle for MC2, black/grey	MC2-XDV	MC290127
Lockable rotary handle for MC2, Emergency stop red/yellow	MC2-XDVR	MC290137
Rotary handle for MC2 with door interlock, lockable, black/grey	MC2-XDTV	MC290133
Rotary handle for MC2 with door interlock, lockable, Emergency stop red/yellow	MC2-XDTVR	MC290144

■ MAIN-SWITCH-SET FOR MC2

■ SCHRACK INFO

Set includes:

- Door coupling rotary handle (page 37)
- Extension shaft -XV4 (page 37)
- Frontside warning plate
- Sticker with warning symbol "lightning"

DESCRIPTION	TYPE	ORDER NO.
Main-switch-set for MC2 with door interlock, black/grey	MC2-XHB	MC296627
Main-switch-set for MC2 with door interlock, Emergency stop red/yellow	MC2-XHBR	MC296633



DOOR COUPLING ROTARY HANDLE FOR MC2







■ SCHRACK INFO

- Complete unit includes rotary drive and coupling parts
- Degree of Protection IP66
- Rotary handle can be rotated 90° for horizontally-mounted switches
- Cannot be defeated in the locked OFF and ON positions
- Can be modified when in the unlocked ON position, can be defeated from the outside with a screwdriver
- Door can be opened in OFF
- External warning plate/designation plate can be clipped on

NOTES

• Order extension shaft separately!

■ TECHNICAL DATA

Available in the following versions:

Type MC.-XTVD

Lockable in the "0" position on handle with up to three padlocks, with door interlock, black/grey

Type MC.-XTVDV

Lockable in the "0" position on handle and switch, with up to three padlocks, with door interlock, black/grey

Type MC.-XTVDVR

Lockable in the "0" position on handle and switch with up to three padlocks, with door interlock, Emergency stop red/yellow

DESCRIPTION	TYPE	ORDER NO.
Door coupling rotary handle for MC2 with door interlock, lockable, black/grey	MC2-XTVD	MC290168
Door coupling rotary handle for MC2 with door interlock, lockable, "0", "1", black/grey	MC2-XTVDV	MC290174
Door coupling rotary handle for MC2 with door interlock, lockable, Emergency stop red/yellow	MC2-XTVDVR	MC290180

EXTENSION SHAFT FOR MC2

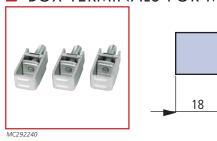


- for maximum cabinet depths of 400 or 600 mm
- Can be cut to required length

DESCRIPTION	CABINET DEPTH	TYPE	ORDER NO.
Extension shaft for MC2 max. 400 mm	max. 400 mm	MC1/2-XV4	MC191232
Extension shaft for MC2 max. 600 mm	max. 600 mm	MC1/2-XV6	MC190191

7

BOX TERMINALS FOR MC2



SCHRACK INFO

- Conversion kit for switches with screw connection
- Contains parts for one switch side
- Installed within the switch housing
- Use cover plate MC2-XKSA
- Terminal capacities:
 Copper lines 1 x 4 185 mm²

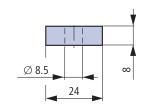
Copper cables 2 x 4 - 70 mm²

DESCRIPTION	TYPE	ORDER NO.
Box terminal up to 160 A (contains 3 pcs.) for MC2	MC2-160-XKC	MC292240
Box terminal up to 250 A (contains 3 pcs.) for MC2	MC2-250-XKC	MC292244
Box terminal up to 160 A (contains 4 pcs.) for MC2-4	MC2-4-160-XKC	MC296755
Box terminal up to 250 A (contains 4 pcs.) for MC2-4	MC2-4-250-XKC	MC296756

SCREW CONNECTION FOR MC2

SCHRACK INFO

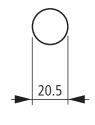
- Standard connection for all MC2, MC2-PN and MC2-N switches
- Conversion kit for switches with box terminal
- Installed inside switch housing
- Contains parts for one switch side located at top or bottom
 3- or 4 pole switches (inlay hex nuts and screws M8)
- Terminal capacities:
 Copper cable lug 1 x 4 185 mm², 2 x 4 70 mm²
 Aluminium cable lug 1 x 10 50 mm², 2 x 10 50 mm²
- Use special cable lugs (page 40)



DESCRIPTION	TYPE	ORDER NO.
Screw connection, 3 pole for MC2	MC2-XKS	MC290030
Screw connection, 4 pole for MC2-4	MC2-4-XKS	MC296750

TUNNEL TERMINAL FOR MC2





■ SCHRACK INFO

- Contains parts for one switch side, top or bottom
- Comes with terminal for control circuit cabling as standard for 1 x 0,75 - 2,5 mm² or 2 x 0,75 - 1,5 mm²
- Terminal capacities:
 Copper cable, Aluminium cable 1 x 16 185 mm²
- Installed outside switch housing
- Terminal cover MC2-XKSA included

■ TECHNICAL DATA

- For copper and aluminium cables, as ordered, up to 240 mm²
- Terminal cover included
- Stranded round conductor / stranded sector-shaped conductor

DESCRIPTION	TYPE	ORDER NO.
Tunnel terminal 185 mm², 3 pcs. included, for MC2	MC2-XKA	MC291457
Tunnel terminal 185 mm², 4 pcs. included, for MC2-4	MC2-4-XKA	MC291458



■ REAR CONNECTION FOR MC2



SCHRACK INFO

- Contains parts for one switch side, top or bottom
- Terminal capacities:
 Copper cable lug 1 x 4 185 mm², 2 x 4 70 mm²
 Aluminium cable lug 1 x 10 50 mm², 2 x 10 50 mm²

DESCRIPTION	TYPE	ORDER NO.
Rear connection, 3 pole MC2	MC2-XKR	MC296765
Rear connection, 4 pole MC2-4	MC2-4-XKR	MC296768

■ CONTROL CIRCUIT TERMINAL FOR MC2



■ SCHRACK INFO

- Contains parts for two terminals located at top or bottom for 3/4 pole switches
- Included with tunnel terminal
- Degree of protection IP1X
- Terminal capacities:
 Screw connection 1 x 0,75 2,5 mm², 2 x 0,75 1,5 mm²
 Box terminal 1 x 0,75 2,5mm², 2 x 0,75 1,5 mm²

DESCRIPTION	TYPE	ORDER NO.
Control circuit terminal for box terminal MC2	MC2-XSTK	MC196739
Control circuit terminal for screw connection MC2	MC2-XSTS	MC290156

■ TERMINAL COVER FOR MC2



■ SCHRACK INFO

- Protection against accidental contact when using cable lugs, rails or tunnel terminals
- Contains parts for one switch side located at top or bottom 3- or 4 pole switches
- Degree of protection IP4X front, side and rear, IP1X on the connection side when using insulated conductor material

DESCRIPTION	TYPE	ORDER NO.
Terminal cover, 3 pole for MC2	MC2-XKSA	MC290038
Terminal cover, 4 pole for MC2-4	MC2-4-XKSA	MC296770

■ PHASE SEPARATOR PLATES FOR MC2



DESCRIPTION	TYPE	ORDER NO.
Phase separator plates for MC2, 3-pole	MC2-XKP	MC296871
Phase separator plates for MC2, 4-pole	MC2-4-XKP	MC296872

CABLE LUG FOR MC2



■ SCHRACK INFO

- Special cable lug in slimline design
- Cable lugs must be insulated when using without a cover plate.

DESCRIPTION	TYPE	ORDER NO.
Cable lug 95 mm²	MC2-XKS95	MC299775
Cable lug 120 mm²	MC2-XKS120	MC299776
Cable lug 150 mm²	MC2-XKS150	MC299777
Cable lug 185 mm²	MC2-XKS185	MC290032

■ CONNECTION COVER, KNOCKOUT FOR BOX TERMINAL MC2



SCHRACK INFO

- Contains parts for a terminal located at top or bottom for 3 or 4 pole switches
- Increases protection against accidental contact (simplified finger protection)

DESCRIPTION	TYPE	ORDER NO.
Terminal cover, knockout, 3 pole for MC2	MC2-XKSFA	MC294640
Terminal cover, knockout, 4 pole for MC2	MC2-4-XKSFA	MC294641

■ IP2X FINGER PROTECTION FOR DIRECT-MOUNTED MC2 SWITCHES





■ SCHRACK INFO

- Increases the protection against accidental contact to IP2X
- Protection when reaching into the cable connection area when cables are connected in box terminal
- For 2 conductors, minimum cross-section equals 25 mm²
- MC2-XIPA and MC2-4-XIPA only in connection with cover plate MC2(-4)-XKSA

DESCRIPTION	TYPE	ORDER NO.
FOR BOX TERMINAL		
Finger protection, 3 pole for MC2	MC2-XIPK	MC296773
Finger protection, 4 pole for MC2-4	MC2-4-XIPK	MC296774

FOR TERMINAL COVER

Finger protection, 3 pole for MC2	MC2-XIPA	MC296777
Finger protection, 4 pole for MC2-4	MC2-4-XIPA	MC296778

INSULATED ENCLOSURE XCI



SCHRACK INFO

- For switches with box terminals only, for direct cable connection
- With door coupling rotary handle
- Complete unit including all necessary functional parts
- Degree of protection IP65
- Comes with gland plates

■ TECHNICAL DATA

Enclosure suitable for installation of circuit-breakers and switch-disconnectors for separate mounting with top and bottom cable entry. Includes fixing straps for wall mounting.

Short circuit protection at 415 V 50/60 Hz to 10 kA.

Not in combination with remote operator, plug-in- or withdrawable unit.

Additional insulated terminals for 4 or 5 pole must be ordered separately.

Available in the following versions:

Standard, black/grey

Lockable in the "0" position at handle with up to 3 padlocks. Additionally with cover interlock.

For Emergency stop, red/yellow

Lockable on handle and switch with up to 3 padlocks in the "0" position on handle. Additionally with cover interlock and lockable at switch in the "0" position.

DESCRIPTION	MAX. RATED UNINTERRUPTED CURRENT	TYPE	ORDER NO.
STANDARD, BLACK/GREY			
Insulated enclosure for MC2 and MC2-4	≤ 200 A	MC2-XCI43-TVD	MC291524
Insulated enclosure for MC2 and MC2-4	≤ 250 A	MC2-XCI45-TVD	MC290418
FOR EMERGENCY STOP, RED/YELLOW			
Insulated enclosure for MC2 and MC2-4	≤ 200 A	MC2-XCI43-TVDR	MC291529
Insulated enclosure for MC2 and MC2-4	≤ 250 A	MC2-XCI45-TVDR	MC299356

ADDITIONAL INSULATED TERMINALS FOR MC2





- For looping through the neutral and earth conductor
- 1 pole

DESCRIPTION	TERMINAL CAPACITY	TYPE	ORDER NO.
Additional insulated terminal 32 A	Fine-wired 1 x (1,5-6 mm²)	K10/1	MC193827
Additional insulated terminals 63 A	Fine-wired 1 x (6-16 mm²), stranded 1 x (16-25 mm²)	K25/1	MC196200
Additional insulated terminals 100 A	Fine-wired 1 x (10-35 mm 2), stranded 1 x (16-50 mm 2)	K50/1	MC198573
Additional insulated terminal 160 A	stranded 1 x (16-95 mm²)	K95/1N/BR	MC192336
Additional insulated terminal 250 A	stranded, 1 x (35-150mm²), 2 x (16-70mm²)	K150/1BR	MC294709



DEVICE ADAPTERS FOR CIRCUIT-BREAKERS AND SWITCH-DISCONNECTORS FOR 60 mm BUSBAR SYSTEM MC2





SCHRACK INFO

- For mounting on flat copper rails 12 x 5 mm to 30 x 10 mm
- Double T and triple T profile
- Mounted via terminal-, screw fixing
- Rated operational voltage Ue: 690 V
- Cover plate also required (MC-XKR)

■ TECHNICAL DATA

MC 2 up to 250 A:

- Top or bottom connection to system as required
- Cover plate MC2-XKR4 required

DESCRIPTION	TYPE	ORDER NO.
60 mm busbar adapter 250 A, 3 pole	32140	MC291400
60 mm busbar adapter 250 A, 4 pole	32580	upon request
Cover plate for busbar adapter, 3 pole	MC2-XKR4	MC291666

DOOR SEALING FRAME FOR MC2



SCHRACK INFO

- For toggle levers, rotary handles with rotary drive and remote operator
- Degree of protection IP40
- For rectangular cut-out on doors and enclosures with material thicknesses of 1,5 5 mm
- External warning plate/designation plate can be clipped on

DESCRIPTION	TYPE	ORDER NO.
Door sealing frame for MC2	MC2-XBR	MC290197

■ TOGGLE LEVER LOCKING DEVICE FOR MC2



- Off position lockable with up to 3 padlocks (hasp thickness 4 8 mm)
- Cannot be combined with Insulating surround

DESCRIPTION	TYPE	ORDER NO.
Toggle lever locking device for MC2	MC2/3-XKAV	MC290201



SPACERS FOR MC2



■ SCHRACK INFO

- Enables fast and low-priced adjustment of various frame sizes with/without rotary handle or remote operator at same front depth
- Grid depth 17,5 mm, thread M4
- Each set contains 4 x spacers
- Maximum component installation 4 pcs. per fastening screw
- 2 fastening screws included for each circuit breaker MC2

DESCRIPTION	TYPE	ORDER NO.
Spacers for MC2	MC2-XAB	MC190203

CLIP PLATE FOR MC2



- Enables snap fit of circuit breakers / switch disconnectors to DIN rail (75 mm top-hat rail)
- Not suitable for switches with remote operator

MC290215	
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DESCRIPTION	TYPE	ORDER NO.
Clip plate for MC2	MC2-XC75	MC290215

