Moulded Case Circuit Breakers **Ex9M AC M**

- Electromagnetic tripping unit for motor protection
- Frame sizes M1-M5
- Rated operating current up to 800 A
- 3 and 4-pole versions
- Rated ultimate short circuit breaking capacity $I_{cu} = I_{cs}$ up to 150 kA,
- Rated voltage 415 / 690 V AC

Moulded Case Circuit Breakers Ex9M Magnetic (M) type are intended for applications in motor protection mainly. Testing according to IEC / EN 60947-2 standards ensures the functionality and reliability for wide variety of applications including isolation.

These breakers are offered with breaking capacities from 36 kA up to extreme 150 kA. High rated impulse withstand voltage makes it possible to use them even in system with occurences of transient overvoltage waves of high intensity, e.g. in heavy industry.

Utilization category A circuit breakers.

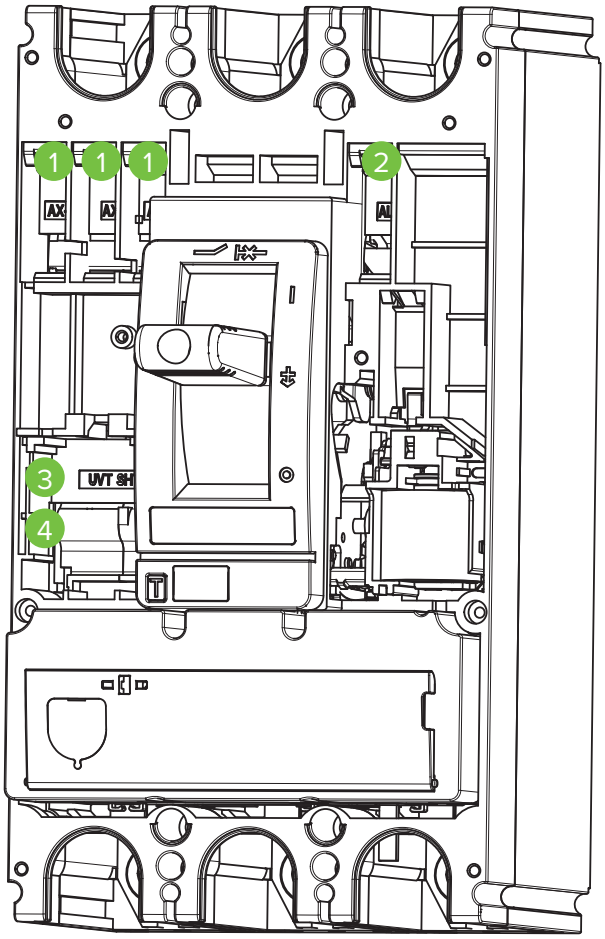
Type Key

Ex9	M	3	S	M	500	3P
Product family	Product family	Frame size	Breaking capacity	Release technology	Rated current	Poles
Ex9	M: MCCB	1: to 160 A 2: to 250 A 3: to 500 A 4: to 630 A 5: to 800 A	S: 36 kA N: 50 kA Q: 70 kA H: 100 kA P: 150 kA	M: Magnetic type for motor protection	M1: 16—160 A M2: 125—250 A M3: 250—500 A M4: 400—630 A M5: 630—800 A	3P: 3-pole 4P4T: 4-pole with protected N-pole

Certification marks

CE

Internal accessories



1	2	3	4
Auxiliary contact **AX21/M**	Signal contact **AL21/M**	Shunt trip release **SHT2*i*** 1 unit or UVT2*i*	Undervoltage release **UVT2*i*** 1 unit or SHT2*i*

Auxiliary contact AX21/M

Signal contact AL21/M

Shunt trip releases SHT2i

Undervoltage releases UVT2i

All internal accessories for the frame sizes M2+M3 and M4+M5 are identical.

External accessories Ex9M1-M5 AC M

Phase barriers
PHS2*i*

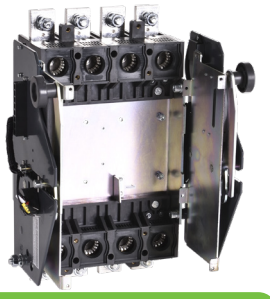
Terminal cover, short
TCV2*i*

Terminal cover, long
TCE2*i*

Remote operator
MOD2*i*

Direct rotary handle
RHD2*i*

Extended rotary handle
ERH2*i*



Draw-Out Base
DOB 2*i* F/B

Plug-In Base
PIA 2*i* F/B

Phase barriers PHS2*i*

Terminal cover, short TCV2*i*

Terminal cover, long TCE2*i*

Remote operators MOD2*i*

Direct rotary handles RHD2*i*

Extended rotary handles ERH2*i*

Draw-Out Base DOB 2*i* F/B

Plug-In Base PIA 2*i* F/B

Moulded Case Circuit Breakers **Ex9M AC M**

External accessories Ex9M1-M5 AC M

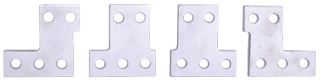
Tunnel terminals
MC2*i* W

Mounting depth spacers
WG *i*

Box terminals
MC2*i*

Screw terminals
MCS2*i*

Din rail adapter
DRA2*i*



Front plate connection
JP 2*i*

Rear connection plate
RCP 2*i*

Off position toggle key lock
KLK 2*i*

Mechanical interlock
MIT 2*i*

Tunnel terminals MC2*i* W

Mounting depth spacers WG *i*

Box terminals MC2*i*

Screw terminals MCS2*i*

Din rail DRA2*i*

Front plate connection JP 2*i*

Rear connection plate RCP 2*i*

Off position toggle key lock KLK 2*i*

Mechanical interlock MIT 2*i*

Moulded Case Circuit Breakers **Ex9M AC M**

Version Ex9M1S M up to 160 A, I_{cu} = 36 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 36 kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n for 125 A and 160 A types, otherwise is fixed at 12 × I_n
- I_{iN} fixed at 12 × I_n
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	16A	192 A	115643	Ex9M1S M 16 3P	1/12
3	20A	240 A	115644	Ex9M1S M 20 3P	1/12
3	25A	300 A	115645	Ex9M1S M 25 3P	1/12
3	32A	384 A	115646	Ex9M1S M 32 3P	1/12
3	40A	480 A	115647	Ex9M1S M 40 3P	1/12
3	50A	600 A	115648	Ex9M1S M 50 3P	1/12
3	63A	756 A	115649	Ex9M1S M 63 3P	1/12
3	80A	960 A	115650	Ex9M1S M 80 3P	1/12
3	100A	1200 A	115651	Ex9M1S M 100 3P	1/12
3	125A	1125-1750 A	115652	Ex9M1S M 125 3P	1/12
3	160A	1440-2240 A	115653	Ex9M1S M 160 3P	1/12
4	16A	192 A	115654	Ex9M1S M 16 4P4T	1/12
4	20A	240 A	115655	Ex9M1S M 20 4P4T	1/12
4	25A	300 A	115656	Ex9M1S M 25 4P4T	1/12
4	32A	384 A	115657	Ex9M1S M 32 4P4T	1/12
4	40A	480 A	115658	Ex9M1S M 40 4P4T	1/12
4	50A	600 A	115659	Ex9M1S M 50 4P4T	1/12
4	63A	756 A	115660	Ex9M1S M 63 4P4T	1/12
4	80A	960 A	115661	Ex9M1S M 80 4P4T	1/12
4	100A	1200 A	115662	Ex9M1S M 100 4P4T	1/12
4	125A	1125-1750 A	115663	Ex9M1S M 125 4P4T	1/12
4	160A	1440-2240 A	115664	Ex9M1S M 160 4P4T	1/12

Version Ex9M1N up to 160 A, I_{cu} = 50 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 50 kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n for 125 A and 160 A types, otherwise is fixed at 12 × I_n
- I_{iN} fixed at 12 × I_n
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	16A	192 A	115665	Ex9M1N M 16 3P	1/12
3	20A	240 A	115666	Ex9M1N M 20 3P	1/12
3	25A	300 A	115667	Ex9M1N M 25 3P	1/12
3	32A	384 A	115668	Ex9M1N M 32 3P	1/12
3	40A	480 A	115669	Ex9M1N M 40 3P	1/12
3	50A	600 A	115670	Ex9M1N M 50 3P	1/12
3	63A	756 A	115671	Ex9M1N M 63 3P	1/12
3	80A	960 A	115672	Ex9M1N M 80 3P	1/12
3	100A	1200 A	115673	Ex9M1N M 100 3P	1/12
3	125A	1125-1750 A	115674	Ex9M1N M 125 3P	1/12
3	160A	1440-2240 A	115675	Ex9M1N M 160 3P	1/12
4	16A	192 A	115676	Ex9M1N M 16 4P4T	1/12
4	20A	240 A	115677	Ex9M1N M 20 4P4T	1/12
4	25A	300 A	115678	Ex9M1N M 25 4P4T	1/12
4	32A	384 A	115679	Ex9M1N M 32 4P4T	1/12
4	40A	480 A	115680	Ex9M1N M 40 4P4T	1/12
4	50A	600 A	115681	Ex9M1N M 50 4P4T	1/12
4	63A	756 A	115682	Ex9M1N M 63 4P4T	1/12
4	80A	960 A	115683	Ex9M1N M 80 4P4T	1/12
4	100A	1200 A	115684	Ex9M1N M 100 4P4T	1/12
4	125A	1125-1750 A	115685	Ex9M1N M 125 4P4T	1/12
4	160A	1440-2240 A	115686	Ex9M1N M 160 4P4T	1/12

Moulded Case Circuit Breakers **Ex9M AC M**

Version Ex9M1Q up to 160 A, I_{cu} = 70 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 70$ kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n for 125 A and 160 A types, otherwise is fixed at 12 × I_n
- I_{iN} fixed at 12 × I_n
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	16A	192 A	115687	Ex9M1Q M 16 3P	1/12
3	20A	240 A	115688	Ex9M1Q M 20 3P	1/12
3	25A	300 A	115689	Ex9M1Q M 25 3P	1/12
3	32A	384 A	115690	Ex9M1Q M 32 3P	1/12
3	40A	480 A	115691	Ex9M1Q M 40 3P	1/12
3	50A	600 A	115692	Ex9M1Q M 50 3P	1/12
3	63A	756 A	115693	Ex9M1Q M 63 3P	1/12
3	80A	960 A	115694	Ex9M1Q M 80 3P	1/12
3	100A	1200 A	115695	Ex9M1Q M 100 3P	1/12
3	125A	1125-1750 A	115696	Ex9M1Q M 125 3P	1/12
3	160A	1440-2240 A	115697	Ex9M1Q M 160 3P	1/12
4	16A	192 A	115698	Ex9M1Q M 16 4P4T	1/12
4	20A	240 A	115699	Ex9M1Q M 20 4P4T	1/12
4	25A	300 A	115700	Ex9M1Q M 25 4P4T	1/12
4	32A	384 A	115701	Ex9M1Q M 32 4P4T	1/12
4	40A	480 A	115702	Ex9M1Q M 40 4P4T	1/12
4	50A	600 A	115703	Ex9M1Q M 50 4P4T	1/12
4	63A	756 A	115704	Ex9M1Q M 63 4P4T	1/12
4	80A	960 A	115705	Ex9M1Q M 80 4P4T	1/12
4	100A	1200 A	115706	Ex9M1Q M 100 4P4T	1/12
4	125A	1125-1750 A	115707	Ex9M1Q M 125 4P4T	1/12
4	160A	1440-2240 A	115708	Ex9M1Q M 160 4P4T	1/12

Version Ex9M1H up to 160 A, I_{cu} = 100 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 100$ kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n for 125 A and 160 A types, otherwise is fixed at 12 × I_n
- I_{iN} fixed at 12 × I_n
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	16A	192 A	115709	Ex9M1H M 16 3P	1/12
3	20A	240 A	115710	Ex9M1H M 20 3P	1/12
3	25A	300 A	115711	Ex9M1H M 25 3P	1/12
3	32A	384 A	115712	Ex9M1H M 32 3P	1/12
3	40A	480 A	115713	Ex9M1H M 40 3P	1/12
3	50A	600 A	115714	Ex9M1H M 50 3P	1/12
3	63A	756 A	115715	Ex9M1H M 63 3P	1/12
3	80A	960 A	115716	Ex9M1H M 80 3P	1/12
3	100A	1200 A	115717	Ex9M1H M 100 3P	1/12
3	125A	1125-1750 A	115718	Ex9M1H M 125 3P	1/12
3	160A	1440-2240 A	115719	Ex9M1H M 160 3P	1/12
4	16A	192 A	115720	Ex9M1H M 16 4P4T	1/12
4	20A	240 A	115721	Ex9M1H M 20 4P4T	1/12
4	25A	300 A	115722	Ex9M1H M 25 4P4T	1/12
4	32A	384 A	115723	Ex9M1H M 32 4P4T	1/12
4	40A	480 A	115724	Ex9M1H M 40 4P4T	1/12
4	50A	600 A	115725	Ex9M1H M 50 4P4T	1/12
4	63A	756 A	115726	Ex9M1H M 63 4P4T	1/12
4	80A	960 A	115727	Ex9M1H M 80 4P4T	1/12
4	100A	1200 A	115728	Ex9M1H M 100 4P4T	1/12
4	125A	1125-1750 A	115729	Ex9M1H M 125 4P4T	1/12
4	160A	1440-2240 A	115730	Ex9M1H M 160 4P4T	1/12

Moulded Case Circuit Breakers **Ex9M AC M**

Version Ex9M1P up to 160 A, I_{cu} = 150 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 150$ kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n for 125 A and 160 A types, otherwise is fixed at 12 × I_n
- I_{iN} fixed at 12 × I_n
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	16A	192 A	115731	Ex9M1P M 16 3P	1/12
3	20A	240 A	115732	Ex9M1P M 20 3P	1/12
3	25A	300 A	115733	Ex9M1P M 25 3P	1/12
3	32A	384 A	115734	Ex9M1P M 32 3P	1/12
3	40A	480 A	115735	Ex9M1P M 40 3P	1/12
3	50A	600 A	115736	Ex9M1P M 50 3P	1/12
3	63A	756 A	115737	Ex9M1P M 63 3P	1/12
3	80A	960 A	115738	Ex9M1P M 80 3P	1/12
3	100A	1200 A	115739	Ex9M1P M 100 3P	1/12
3	125A	1125-1750 A	115740	Ex9M1P M 125 3P	1/12
3	160A	1440-2240 A	115741	Ex9M1P M 160 3P	1/12
4	16A	192 A	115742	Ex9M1P M 16 4P4T	1/12
4	20A	240 A	115743	Ex9M1P M 20 4P4T	1/12
4	25A	300 A	115744	Ex9M1P M 25 4P4T	1/12
4	32A	384 A	115745	Ex9M1P M 32 4P4T	1/12
4	40A	480 A	115746	Ex9M1P M 40 4P4T	1/12
4	50A	600 A	115747	Ex9M1P M 50 4P4T	1/12
4	63A	756 A	115748	Ex9M1P M 63 4P4T	1/12
4	80A	960 A	115749	Ex9M1P M 80 4P4T	1/12
4	100A	1200 A	115750	Ex9M1P M 100 4P4T	1/12
4	125A	1125-1750 A	115751	Ex9M1P M 125 4P4T	1/12
4	160A	1440-2240 A	115752	Ex9M1P M 160 4P4T	1/12

Moulded Case Circuit Breakers **Ex9M AC M**

Version Ex9M2S up to 250 A, I_{cu} = 36 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 36 kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	125 A	1125-1750 A	115753	Ex9M2S M 125 3P	1/8
3	160 A	1440-2240 A	115754	Ex9M2S M 160 3P	1/8
3	180 A	1620-2520 A	115755	Ex9M2S M 180 3P	1/8
3	200 A	1800-2800 A	115756	Ex9M2S M 200 3P	1/8
3	225 A	2025-3150 A	115757	Ex9M2S M 225 3P	1/8
3	250 A	2250-3500 A	115758	Ex9M2S M 250 3P	1/8
4	125 A	1125-1750 A	115759	Ex9M2S M 125 4P4T	1/8
4	160 A	1440-2240 A	115760	Ex9M2S M 160 4P4T	1/8
4	180 A	1620-2520 A	115761	Ex9M2S M 180 4P4T	1/8
4	200 A	1800-2800 A	115762	Ex9M2S M 200 4P4T	1/8
4	225 A	2025-3150 A	115763	Ex9M2S M 225 4P4T	1/8
4	250 A	2250-3500 A	115764	Ex9M2S M 250 4P4T	1/8

Version Ex9M2N up to 250 A, I_{cu} = 50 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 50 kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	125 A	1125-1750 A	115765	Ex9M2N M 125 3P	1/8
3	160 A	1440-2240 A	115766	Ex9M2N M 160 3P	1/8
3	180 A	1620-2520 A	115767	Ex9M2N M 180 3P	1/8
3	200 A	1800-2800 A	115768	Ex9M2N M 200 3P	1/8
3	225 A	2025-3150 A	115769	Ex9M2N M 225 3P	1/8
3	250 A	2250-3500 A	115770	Ex9M2N M 250 3P	1/8
4	125 A	1125-1750 A	115771	Ex9M2N M 125 4P4T	1/8
4	160 A	1440-2240 A	115772	Ex9M2N M 160 4P4T	1/8
4	180 A	1620-2520 A	115773	Ex9M2N M 180 4P4T	1/8
4	200 A	1800-2800 A	115774	Ex9M2N M 200 4P4T	1/8
4	225 A	2025-3150 A	115775	Ex9M2N M 225 4P4T	1/8
4	250 A	2250-3500 A	115776	Ex9M2N M 250 4P4T	1/8

Moulded Case Circuit Breakers **Ex9M AC M**

Version Ex9M2Q up to 250 A, I_{cu} = 75 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 75 kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	125 A	1125-1750 A	115777	Ex9M2Q M 125 3P	1/8
3	160 A	1440-2240 A	115778	Ex9M2Q M 160 3P	1/8
3	180 A	1620-2520 A	115779	Ex9M2Q M 180 3P	1/8
3	200 A	1800-2800 A	115780	Ex9M2Q M 200 3P	1/8
3	225 A	2025-3150 A	115781	Ex9M2Q M 225 3P	1/8
3	250 A	2250-3500 A	115782	Ex9M2Q M 250 3P	1/8
4	125 A	1125-1750 A	115783	Ex9M2Q M 125 4P4T	1/8
4	160 A	1440-2240 A	115784	Ex9M2Q M 160 4P4T	1/8
4	180 A	1620-2520 A	115785	Ex9M2Q M 180 4P4T	1/8
4	200 A	1800-2800 A	115786	Ex9M2Q M 200 4P4T	1/8
4	225 A	2025-3150 A	115787	Ex9M2Q M 225 4P4T	1/8
4	250 A	2250-3500 A	115788	Ex9M2Q M 250 4P4T	1/8

Version Ex9M2H up to 250 A, I_{cu} = 100 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 100 kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	125 A	1125-1750 A	115789	Ex9M2H M 125 3P	1/8
3	160 A	1440-2240 A	115790	Ex9M2H M 160 3P	1/8
3	180 A	1620-2520 A	115791	Ex9M2H M 180 3P	1/8
3	200 A	1800-2800 A	115792	Ex9M2H M 200 3P	1/8
3	225 A	2025-3150 A	115793	Ex9M2H M 225 3P	1/8
3	250 A	2250-3500 A	115794	Ex9M2H M 250 3P	1/8
4	125 A	1125-1750 A	115795	Ex9M2H M 125 4P4T	1/8
4	160 A	1440-2240 A	115796	Ex9M2H M 160 4P4T	1/8
4	180 A	1620-2520 A	115797	Ex9M2H M 180 4P4T	1/8
4	200 A	1800-2800 A	115798	Ex9M2H M 200 4P4T	1/8
4	225 A	2025-3150 A	115799	Ex9M2H M 225 4P4T	1/8
4	250 A	2250-3500 A	115800	Ex9M2H M 250 4P4T	1/8

Moulded Case Circuit Breakers **Ex9M AC M**

Version Ex9M2P up to 250 A, I_{cu} = 150 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 150$ kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	125 A	1125-1750 A	115801	Ex9M2P M 125 3P	1/8
3	160 A	1440-2240 A	115802	Ex9M2P M 160 3P	1/8
3	180 A	1620-2520 A	115803	Ex9M2P M 180 3P	1/8
3	200 A	1800-2800 A	115804	Ex9M2P M 200 3P	1/8
3	225 A	2025-3150 A	115805	Ex9M2P M 225 3P	1/8
3	250 A	2250-3500 A	115806	Ex9M2P M 250 3P	1/8
4	125 A	1125-1750 A	115807	Ex9M2P M 125 4P4T	1/8
4	160 A	1440-2240 A	115808	Ex9M2P M 160 4P4T	1/8
4	180 A	1620-2520 A	115809	Ex9M2P M 180 4P4T	1/8
4	200 A	1800-2800 A	115810	Ex9M2P M 200 4P4T	1/8
4	225 A	2025-3150 A	115811	Ex9M2P M 225 4P4T	1/8
4	250 A	2250-3500 A	115812	Ex9M2P M 250 4P4T	1/8

Moulded Case Circuit Breakers **Ex9M AC M**

Version Ex9M3S up to 500 A, I_{cu} = 36 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 36 kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, screw type terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	250 A	2250-3500 A	115813	Ex9M3S M 250 3P	1/2
3	315 A	2835-4410A	115814	Ex9M3S M 315 3P	1/2
3	350 A	3150-4900 A	115815	Ex9M3S M 350 3P	1/2
3	400 A	3600-5600 A	115816	Ex9M3S M 400 3P	1/2
3	500 A	4500-7000 A	115817	Ex9M3S M 500 3P	1/2
4	250 A	2250-3500 A	115818	Ex9M3S M 250 4P4T	1/2
4	315 A	2835-4410A	115819	Ex9M3S M 315 4P4T	1/2
4	350 A	3150-4900 A	115820	Ex9M3S M 350 4P4T	1/2
4	400 A	3600-5600 A	115821	Ex9M3S M 400 4P4T	1/2
4	500 A	4500-7000 A	115822	Ex9M3S M 500 4P4T	1/2

Version Ex9M3N up to 500 A, I_{cu} = 50 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 50 kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, screw type terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	250 A	2250-3500 A	115823	Ex9M3N M 250 3P	1/2
3	315 A	2835-4410A	115824	Ex9M3N M 315 3P	1/2
3	350 A	3150-4900 A	115825	Ex9M3N M 350 3P	1/2
3	400 A	3600-5600 A	115826	Ex9M3N M 400 3P	1/2
3	500 A	4500-7000 A	115827	Ex9M3N M 500 3P	1/2
4	250 A	2250-3500 A	115828	Ex9M3N M 250 4P4T	1/2
4	315 A	2835-4410A	115829	Ex9M3N M 315 4P4T	1/2
4	350 A	3150-4900 A	115830	Ex9M3N M 350 4P4T	1/2
4	400 A	3600-5600 A	115831	Ex9M3N M 400 4P4T	1/2
4	500 A	4500-7000 A	115832	Ex9M3N M 500 4P4T	1/2

Version Ex9M3Q up to 500 A, I_{cu} = 75 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 75 kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, screw type terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	250 A	2250-3500 A	115833	Ex9M3Q M 250 3P	1/2
3	315 A	2835-4410A	115834	Ex9M3Q M 315 3P	1/2
3	350 A	3150-4900 A	115835	Ex9M3Q M 350 3P	1/2
3	400 A	3600-5600 A	115836	Ex9M3Q M 400 3P	1/2
3	500 A	4500-7000 A	115837	Ex9M3Q M 500 3P	1/2
4	250 A	2250-3500 A	115838	Ex9M3Q M 250 4P4T	1/2
4	315 A	2835-4410A	115839	Ex9M3Q M 315 4P4T	1/2
4	350 A	3150-4900 A	115840	Ex9M3Q M 350 4P4T	1/2
4	400 A	3600-5600 A	115841	Ex9M3Q M 400 4P4T	1/2
4	500 A	4500-7000 A	115842	Ex9M3Q M 500 4P4T	1/2

Moulded Case Circuit Breakers **Ex9M AC M**

Version Ex9M3H up to 500 A, I_{cu} = 100 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 100 kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, screw type terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	250 A	2250-3500 A	115843	Ex9M3H M 250 3P	1/2
3	315 A	2835-4410A	115844	Ex9M3H M 315 3P	1/2
3	350 A	3150-4900 A	115845	Ex9M3H M 350 3P	1/2
3	400 A	3600-5600 A	115846	Ex9M3H M 400 3P	1/2
3	500 A	4500-7000 A	115847	Ex9M3H M 500 3P	1/2
4	250 A	2250-3500 A	115848	Ex9M3H M 250 4P4T	1/2
4	315 A	2835-4410A	115849	Ex9M3H M 315 4P4T	1/2
4	350 A	3150-4900 A	115850	Ex9M3H M 350 4P4T	1/2
4	400 A	3600-5600 A	115851	Ex9M3H M 400 4P4T	1/2
4	500 A	4500-7000 A	115852	Ex9M3H M 500 4P4T	1/2

Version Ex9M3P up to 500 A, I_{cu} = 150 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 150 kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, screw type terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	250 A	2250-3500 A	115853	Ex9M3P M 250 3P	1/2
3	315 A	2835-4410A	115854	Ex9M3P M 315 3P	1/2
3	350 A	3150-4900 A	115855	Ex9M3P M 350 3P	1/2
3	400 A	3600-5600 A	115856	Ex9M3P M 400 3P	1/2
3	500 A	4500-7000 A	115857	Ex9M3P M 500 3P	1/2
4	250 A	2250-3500 A	115858	Ex9M3P M 250 4P4T	1/2
4	315 A	2835-4410A	115859	Ex9M3P M 315 4P4T	1/2
4	350 A	3150-4900 A	115860	Ex9M3P M 350 4P4T	1/2
4	400 A	3600-5600 A	115861	Ex9M3P M 400 4P4T	1/2
4	500 A	4500-7000 A	115862	Ex9M3P M 500 4P4T	1/2

Moulded Case Circuit Breakers **Ex9M AC M**

Version Ex9M4S up to 630 A, I_{cu} = 36 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 36 kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, screw type terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	400 A	3600-5600 A	115863	Ex9M4S M 400 3P	1/1
3	500 A	4500-7000 A	115864	Ex9M4S M 500 3P	1/1
3	630 A	5670-8820 A	115865	Ex9M4S M 630 3P	1/1
4	400 A	3600-5600 A	115866	Ex9M4S M 400 4P4T	1/1
4	500 A	4500-7000 A	115867	Ex9M4S M 500 4P4T	1/1
4	630 A	5670-8820 A	115868	Ex9M4S M 630 4P4T	1/1

Version Ex9M4N up to 630 A, I_{cu} = 50 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 50 kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, screw type terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	400 A	3600-5600 A	115869	Ex9M4N M 400 3P	1/1
3	500 A	4500-7000 A	115870	Ex9M4N M 500 3P	1/1
3	630 A	5670-8820 A	115871	Ex9M4N M 630 3P	1/1
4	400 A	3600-5600 A	115872	Ex9M4N M 400 4P4T	1/1
4	500 A	4500-7000 A	115873	Ex9M4N M 500 4P4T	1/1
4	630 A	5670-8820 A	115874	Ex9M4N M 630 4P4T	1/1

Version Ex9M4Q up to 630 A, I_{cu} = 75 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 75 kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, screw type terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	400 A	3600-5600 A	115875	Ex9M4Q M 400 3P	1/1
3	500 A	4500-7000 A	115876	Ex9M4Q M 500 3P	1/1
3	630 A	5670-8820 A	115877	Ex9M4Q M 630 3P	1/1
4	400 A	3600-5600 A	115878	Ex9M4Q M 400 4P4T	1/1
4	500 A	4500-7000 A	115879	Ex9M4Q M 500 4P4T	1/1
4	630 A	5670-8820 A	115880	Ex9M4Q M 630 4P4T	1/1

Moulded Case Circuit Breakers **Ex9M AC M**

Version Ex9M4H up to 630 A, I_{cu} = 100 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 100$ kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, screw type terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	400 A	3600-5600 A	115881	Ex9M4H M 400 3P	1/1
3	500 A	4500-7000 A	115882	Ex9M4H M 500 3P	1/1
3	630 A	5670-8820 A	115883	Ex9M4H M 630 3P	1/1
4	400 A	3600-5600 A	115884	Ex9M4H M 400 4P4T	1/1
4	500 A	4500-7000 A	115885	Ex9M4H M 500 4P4T	1/1
4	630 A	5670-8820 A	115886	Ex9M4H M 630 4P4T	1/1

Version Ex9M4P up to 630 A, I_{cu} = 150 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 150$ kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, screw type terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	400 A	3600-5600 A	115887	Ex9M4P M 400 3P	1/1
3	500 A	4500-7000 A	115888	Ex9M4P M 500 3P	1/1
3	630 A	5670-8820 A	115889	Ex9M4P M 630 3P	1/1
4	400 A	3600-5600 A	115890	Ex9M4P M 400 4P4T	1/1
4	500 A	4500-7000 A	115891	Ex9M4P M 500 4P4T	1/1
4	630 A	5670-8820 A	115892	Ex9M4P M 630 4P4T	1/1

Moulded Case Circuit Breakers **Ex9M AC M**

Version Ex9M5S up to 800 A, I_{cu} = 36 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 36 kA at 415 V AC
- I_r can be set in range (0.7 — 1.0) × I_n
- I_i can be set in range (5 — 10) × I_n
- $I_{iN} = I_i$
- Mounting screws, screw type terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	630 A	5670-8820 A	115893	Ex9M5S M 630 3P	1/1
3	700 A	6300-9800 A	115894	Ex9M5S M 700 3P	1/1
3	800 A	7200-11200 A	115895	Ex9M5S M 800 3P	1/1
4	630 A	5670-8820 A	115896	Ex9M5S M 630 4P4T	1/1
4	700 A	6300-9800 A	115897	Ex9M5S M 700 4P4T	1/1
4	800 A	7200-11200 A	115898	Ex9M5S M 800 4P4T	1/1

Version Ex9M5N up to 800 A, I_{cu} = 50 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 50 kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, screw type terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	630 A	5670-8820 A	115899	Ex9M5N M 630 3P	1/1
3	700 A	6300-9800 A	115900	Ex9M5N M 700 3P	1/1
3	800 A	7200-11200 A	115901	Ex9M5N M 800 3P	1/1
4	630 A	5670-8820 A	115902	Ex9M5N M 630 4P4T	1/1
4	700 A	6300-9800 A	115903	Ex9M5N M 700 4P4T	1/1
4	800 A	7200-11200 A	115904	Ex9M5N M 800 4P4T	1/1

Version Ex9M5Q up to 800 A, I_{cu} = 75 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 75 kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, screw type terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	630 A	5670-8820 A	115905	Ex9M5Q M 630 3P	1/1
3	700 A	6300-9800 A	115906	Ex9M5Q M 700 3P	1/1
3	800 A	7200-11200 A	115907	Ex9M5Q M 800 3P	1/1
4	630 A	5670-8820 A	115908	Ex9M5Q M 630 4P4T	1/1
4	700 A	6300-9800 A	115909	Ex9M5Q M 700 4P4T	1/1
4	800 A	7200-11200 A	115910	Ex9M5Q M 800 4P4T	1/1

Moulded Case Circuit Breakers **Ex9M AC M**

Version Ex9M5H up to 800 A, I_{cu} = 100 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 100$ kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, screw type terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	630 A	5670-8820 A	115911	Ex9M5H M 630 3P	1/1
3	700 A	6300-9800 A	115912	Ex9M5H M 700 3P	1/1
3	800 A	7200-11200 A	115913	Ex9M5H M 800 3P	1/1
4	630 A	5670-8820 A	115914	Ex9M5H M 630 4P4T	1/1
4	700 A	6300-9800 A	115915	Ex9M5H M 700 4P4T	1/1
4	800 A	7200-11200 A	115916	Ex9M5H M 800 4P4T	1/1

Version Ex9M5P up to 800 A, I_{cu} = 150 kA

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 150$ kA at 415 V AC
- I_i can be set in range (9 — 14) × I_n
- $I_{iN} = I_i$
- Mounting screws, screw type terminals as well as phase barriers in the scope of delivery

Poles	Rated current I_n	Instant. release I_i	Article No.	Type	Packing
3	630 A	5670-8820 A	115917	Ex9M5P M 630 3P	1/1
3	700 A	6300-9800 A	115918	Ex9M5P M 700 3P	1/1
3	800 A	7200-11200 A	115919	Ex9M5P M 800 3P	1/1
4	630 A	5670-8820 A	115920	Ex9M5P M 630 4P4T	1/1
4	700 A	6300-9800 A	115921	Ex9M5P M 700 4P4T	1/1
4	800 A	7200-11200 A	115922	Ex9M5P M 800 4P4T	1/1

AC M Moulded Case Circuit Breakers up to 160 A

General parameters		
Suitable for commercial as well as industrial applications		
I_i can be set in range (9 — 14) × I_n for 125 A and 160 A types (3 and 4 Pole)		
Internal accessories		
Auxiliary contact unit	AX21M	112071
Alarm contact unit	AL21M	112072
Shunt trip releases	SHT21	101397 — 101405
Undervoltage releases	UVT21	101406 — 101407
Max. number of installed internal accessories is 2 pcs of AX21M, 1 pc of AL21M and 1 pc of a release (SHT21 or UVT21)		
External accessories		
Direct rotary handle	RHD21	101410
Extended rotary handle	ERH21	101409
Remote motor operators	MOD21	101411, 101412, 112079, 101425
Terminal cover, short	TCV21 3P, 4P	101439, 102372
Terminal cover, long	TCE21 3P, 4P	101440, 102373
Phase barrier	PHS21	112110
Box terminals	MC21	103705
Screw Terminal	MCS21	107873
Tunnel terminal	MC21 W	103707
DIN-rail adapter	DRA21	106319
Plug-in base	PIA 21	112875, 112876, 112881, 112882
Off position toggle key lock	KLK21	108852
Front plate connection	JP21	108859, 108865
Rear connection plate	RCP21	108871, 108875
Mechanical interlock	MIT21	108855
Mounting depth spacers	WG10, WG13	106131, 106132
Mounting screws, box terminals as well as phase barriers in the scope of delivery		

Derating coefficient of Tripping Characteristics on accessories combination						
Combined accessory	**I_n (T) [A]**					
	16 — 50 A	**63 A**	**80 A**	**100 A**	**125 A**	**160**
PIA 21	1	1	1	1	0.95	0.95

AC M Moulded Case Circuit Breakers up to 160 A

Electrical parameters					
	Ex9M1S	**Ex9M1N**	**Ex9M1Q**	**Ex9M1H**	**Ex9M1P**
Tested according to	IEC/EN 60947-2				
Rated op. voltage U_e	380 / 400 / 415, 440, 500, 660 / 690 V AC				
Rated insulation voltage U_i	1 000 V				
Rated impulse withstand voltage U_{imp}	8 kV				
Rated frequency	50/60 Hz				
Rated ultimate short-circuit breaking capacity I_{cu}	36 kA / 415 V 6 kA / 690 V	50 kA / 415 V 8 kA / 690 V	70 kA / 415 V 8 kA / 690 V	100 kA / 415 V 10 kA / 690 V	150 kA / 415 V 10 kA / 690 V
Rated service short-circuit breaking capacity I_{cs}	36 kA / 415 V 6 kA / 690 V	50 kA / 415 V 8 kA / 690 V	70 kA / 415 V 8 kA / 690 V	100 kA / 415 V 10 kA / 690 V	150 kA / 415 V 10 kA / 690 V
Rated current	16 / 20 / 25 / 32 / 40 / 50 / 63 / 80 / 100 / 125 / 160 A				
Utilization category	A				
Mechanical service life	15 000 operation cycles				
Electrical service life	8 000 operation cycles / 415 V AC 2 000 operation cycles / 690 V AC				
Total disconnection time at short circuit	< 2 ms				
Line voltage connection	arbitrary above or below				

Dependence of Tripping Characteristics on Ambient Temperature											
T [°C]	I_n **(T) [A]**										
	16 A	**20 A**	**25 A**	**32 A**	**40 A**	**50 A**	**63 A**	**80 A**	**100 A**	**125 A**	**160 A**
-40	22.5	28	35	45	56	70	88	112	140	175	224
-35	22	27.5	34	44	55	68.5	86.5	110	137	172	220
-25	20.5	26.5	33	42	53	66	83	106	132	165	212
-15	20	25.5	32	41	51	64	80	102	127	159	204
-5	19.5	24.5	30.5	39	49	61	77	98	122	153	196
0	19	24	30	38	48	60	75	96	120	150	192
10	18.5	23	28	37	46	57.5	72	92	115	144	184
20	17.5	22	27	35	44	55	69	88	110	137	176
30	17	21	26	33	42	52.5	66	84	105	131	168
40	16	20	25	32	40	50	63	80	100	125	160
50	15	19.5	24	30.5	37	47.5	58.5	74.5	93	116	149
60	14.5	18.5	22.5	29	33.5	45	53	67	84	105	135
70	14	18	22	28	29	40	46	56	80	91	117

Power dissipation characteristics											
I_n	**16 A**	**20 A**	**25 A**	**32 A**	**40 A**	**50 A**	**63 A**	**80 A**	**100 A**	**125 A**	**160 A**
Pole resistance (mΩ)	8.8	8.8	5.2	4.5	2.6	1.8	1.7	1.3	0.88	0.8	0.8
Pole power dissipation (W)	2.3	3.5	3.3	4.6	4.2	4.5	6.7	8.3	8.8	12.5	20.5

AC M Moulded Case Circuit Breakers up to 160 A

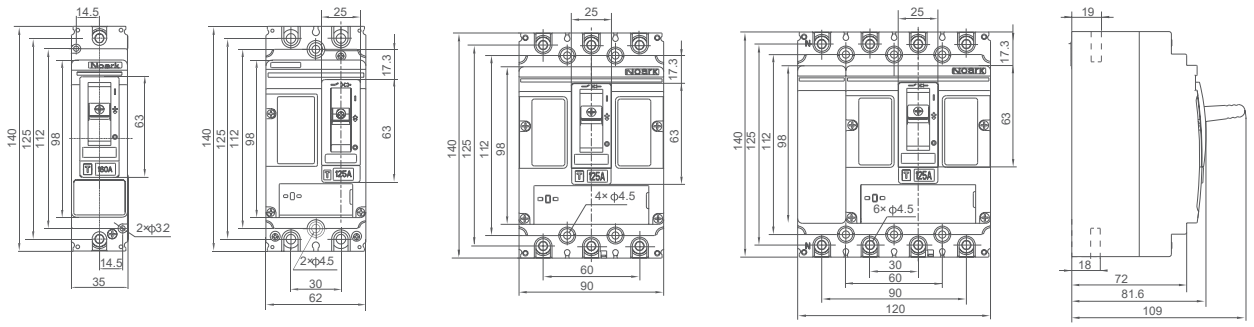
Mechanical parameters	
Device width 1P / 2P/ 3P / 4P	35 mm / 62 mm /90 mm / 120 mm
Device height	140 mm
Device depth	81.6 mm
Mounting	onto panel
Degree of protection	IP40, IP20 terminals
Terminals	box
Terminal capacity	4 — 95 mm^2
Fastening torque of terminals	8 Nm
Ambient temperature	-40 — +70 °C
Relative humidity	≤ 50 % at 40 °C, ≤ 90 % monthly average
Pollution degree	3
Weight 1P / 2P /3P / 4P	0.5 kg / 0.9 kg / 1.2 kg / 1.7 kg
Mounting position	vertical, can be rotated by 90° in each axis

Derating coefficient of technical parameters based on altitude				
Altitude	**≤ 2 000 m**	**3 000 m**	**4 000 m**	**5 000 m**
Derrating op. current I_n coefficient	1	0.96	0.93	0.9
Maximum rated op. voltage U_e	690 V AC	550 V AC	480 V AC	420 V AC
Rated insulation voltage U_i	1000 V AC	930 V AC	870 V AC	800 V AC
Rated impulse withstand voltage U_{imp}	8 kV	8 kV	8 kV	8 kV
Dielectric properties (U_{imp}=8 kV)	2200 V AC	2050 V AC	1900 V AC	1770 V AC

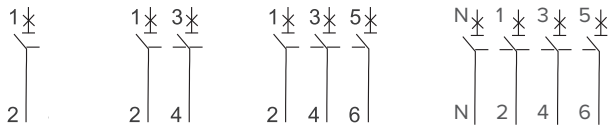
Dimensions

mm

1P 2P 3P 4P



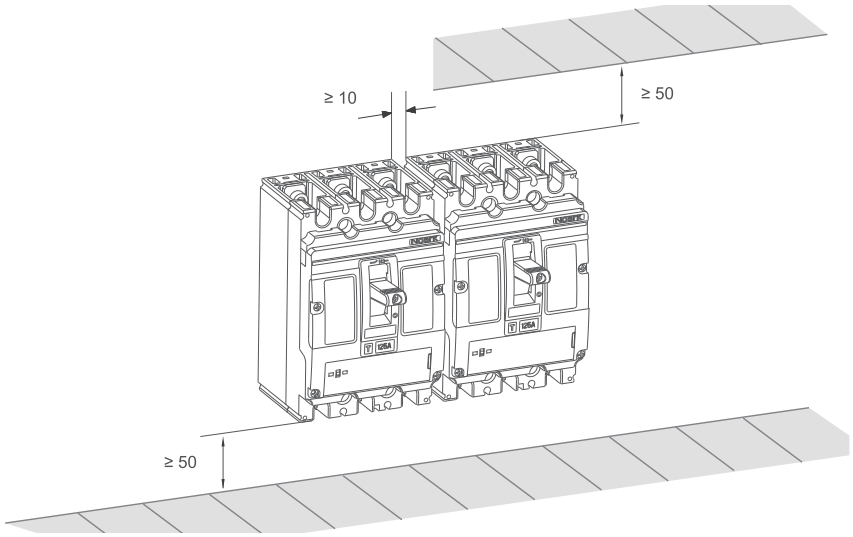
Wiring diagram



AC M Moulded Case Circuit Breakers up to 160 A

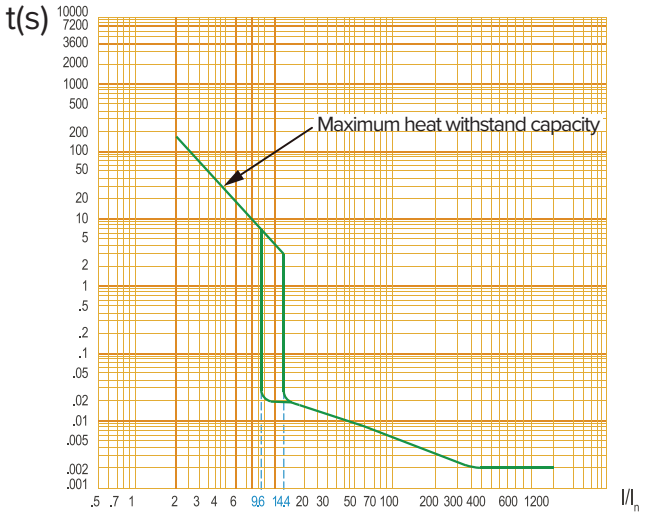
Installation space

mm

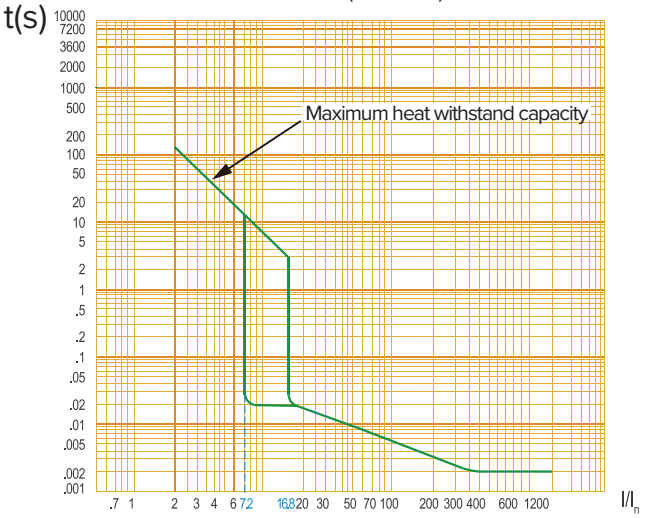


Tripping characteristics

Ex9M1 (16-100A)



Ex9M1 (125-160A)



AC M Moulded Case Circuit Breakers up to 250 A

General parameters		
Suitable for commercial as well as industrial applications		
I_i can be set in range (9 — 14) × I_n		
$I_{iN} = I_i$		
Internal accessories		
Auxiliary contact unit	AX21M	112071
Alarm contact unit	AL21M	112072
Shunt trip releases	SHT22	101416 — 101424
Undervoltage releases	UVT22	101425 — 101426
Max. number of installed internal accessories is 2 pcs of AX21M, 1 pc of AL21M and 1 pc of a release (SHT22 or UVT22)		
External accessories		
Direct rotary handle	RHD22	101429
Extended rotary handle	ERH22	101428
Remote motor operators	MOD22	101430, 101431, 112080, 101443
Terminal cover, short	TCV22 3P, 4P	101442, 102374
Terminal cover, long	TCE22 3P, 4P	101443, 102375
Phase barrier	PHS22	112111
Box terminals	MC22	103709
Screw Terminal	MCS22	107874
Tunnel terminal	MC22 W	103869, 103711, 103713
DIN-rail adapter	DRA22	106320
Plug-in base	PIA 22	112877, 112878, 112883, 112884
Off position toggle key lock	KLK22	108853
Front plate connection	JP22	108860, 108866
Rear connection plate	RCP22	108872, 108876
Mechanical interlock	MIT22	108856
Mounting depth spacers	WG10, WG13	106131, 106132
Mounting screws, box terminals as well as phase barriers in the scope of delivery		

Derating coefficient of Tripping Characteristics on accessories combination						
Combined accessory	**I_n (T) [A]**					
	125 A	**160 A**	**180 A**	**200 A**	**225 A**	**250 A**
PIA 22	1	1	1	0.95	0.95	0.95

AC M Moulded Case Circuit Breakers up to 250 A

Electrical parameters					
	Ex9M2S	**Ex9M2N**	**Ex9M2Q**	**Ex9M2H**	**Ex9M2P**
Tested according to	IEC/EN 60947-2				
Rated op. voltage U_e	380 / 400 / 415, 440, 500, 660 / 690 V AC				
Rated insulation voltage U_i	1 000 V				
Rated impulse withstand voltage U_{imp}	8 kV				
Rated frequency	50/60 Hz				
Rated ultimate short-circuit breaking capacity I_{cu}	36 kA / 415 V 6 kA / 690 V	50 kA / 415 V 8 kA / 690 V	70 kA / 415 V 8 kA / 690 V	100 kA / 415 V 10 kA / 690 V	150 kA / 415 V 10 kA / 690 V
Rated service short-circuit breaking capacity I_{cs}	36 kA / 415 V 6 kA / 690 V	50 kA / 415 V 8 kA / 690 V	70 kA / 415 V 8 kA / 690 V	100 kA / 415 V 10 kA / 690 V	150 kA / 415 V 10 kA / 690 V
Rated current	125 / 160 / 180 / 200 / 225 / 250 A				
Utilization category	A				
Mechanical service life	15 000 operation cycles				
Electrical service life	5 000 operation cycles / 415 V AC 2 000 operation cycles / 690 V AC				
Total disconnection time at short circuit	< 2 ms				
Line voltage connection	arbitrary above or below				

Dependence of Tripping Characteristics on Ambient Temperature						
T [°C]	**I_n (T) [A]**					
	125 A	**160 A**	**180 A**	**200 A**	**225 A**	**250 A**
-40	175	224	252	280	315	35
-35	172	220	247	275	309	343
-25	165	212	238	265	300	332
-15	159	204	229	255	288	319
-5	153	196	220	245	276	306
0	150	192	212	240	270	300
10	144	184	207	230	259	287
20	137	176	198	220	247	275
30	131	168	189	210	236	262
40	125	160	180	200	225	250
50	118	152	171	190	213	237
60	106	136	157	175	196	218
70	96	120	144	166	180	207

Power dissipation characteristics						
I_n	**125 A**	**160 A**	**180 A**	**200 A**	**225 A**	**250 A**
Pole resistance (mΩ)	0.7	0.55	0.55	0.55	0.4	0.4
Pole power dissipation (W)	10.9	14.1	17.8	22	20.3	25

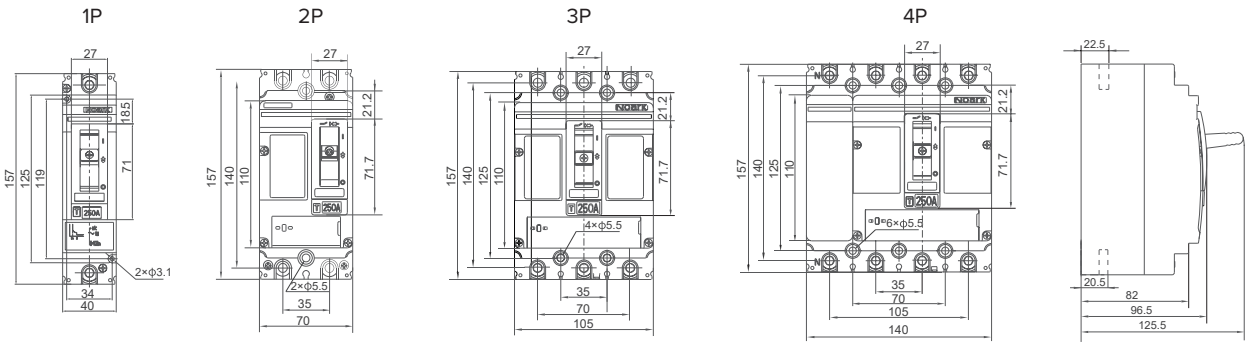
AC M Moulded Case Circuit Breakers up to 250 A

Mechanical parameters	
Device width 1P / 2P / 3P / 4P	40 mm / 70 mm / 105 mm / 140 mm
Device height	157 mm
Device depth	96.5 mm
Mounting	onto panel
Degree of protection	IP40, IP20 terminals
Terminals	box
Terminal capacity	10 — 120 mm^2
Fastening torque of terminals	25 Nm
Ambient temperature	-40 — +70 °C
Relative humidity	≤ 50 % at 40 °C, ≤ 90 % monthly average
Pollution degree	3
Weight 1P / 2P / 3P / 4P	0.75 kg / 1.3 kg / 1.85 kg / 2.5 kg
Mounting position	vertical, can be rotated by 90° in each axis

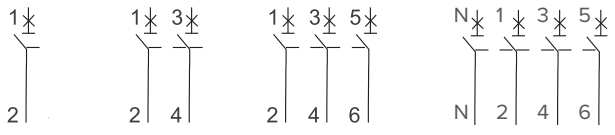
Derating coefficient of technical parameters based on altitude				
Altitude	**≤ 2 000 m**	**3 000 m**	**4 000 m**	**5 000 m**
Derrating op. current I_n coefficient	1	0.96	0.93	0.9
Maximum rated op. voltage U_e	690 V AC	550 V AC	480 V AC	420 V AC
Rated insulation voltage U_i	1000 V AC	930 V AC	870 V AC	800 V AC
Rated impulse withstand voltage U_{imp}	8 kV	8 kV	8 kV	8 kV
Dielectric properties (U_{imp}=8 kV)	2200 V AC	2050 V AC	1900 V AC	1770 V AC

Dimensions

mm



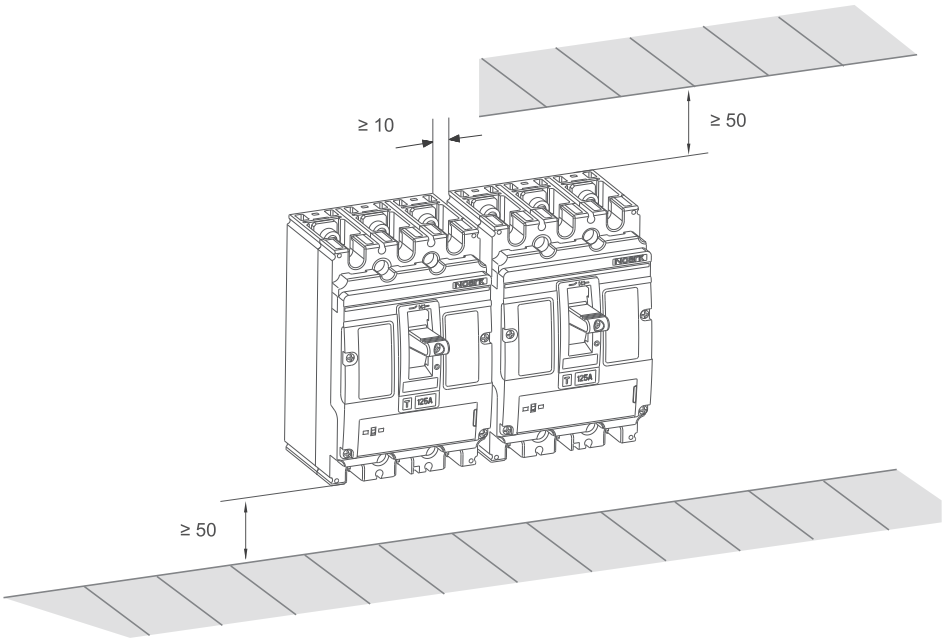
Wiring diagram



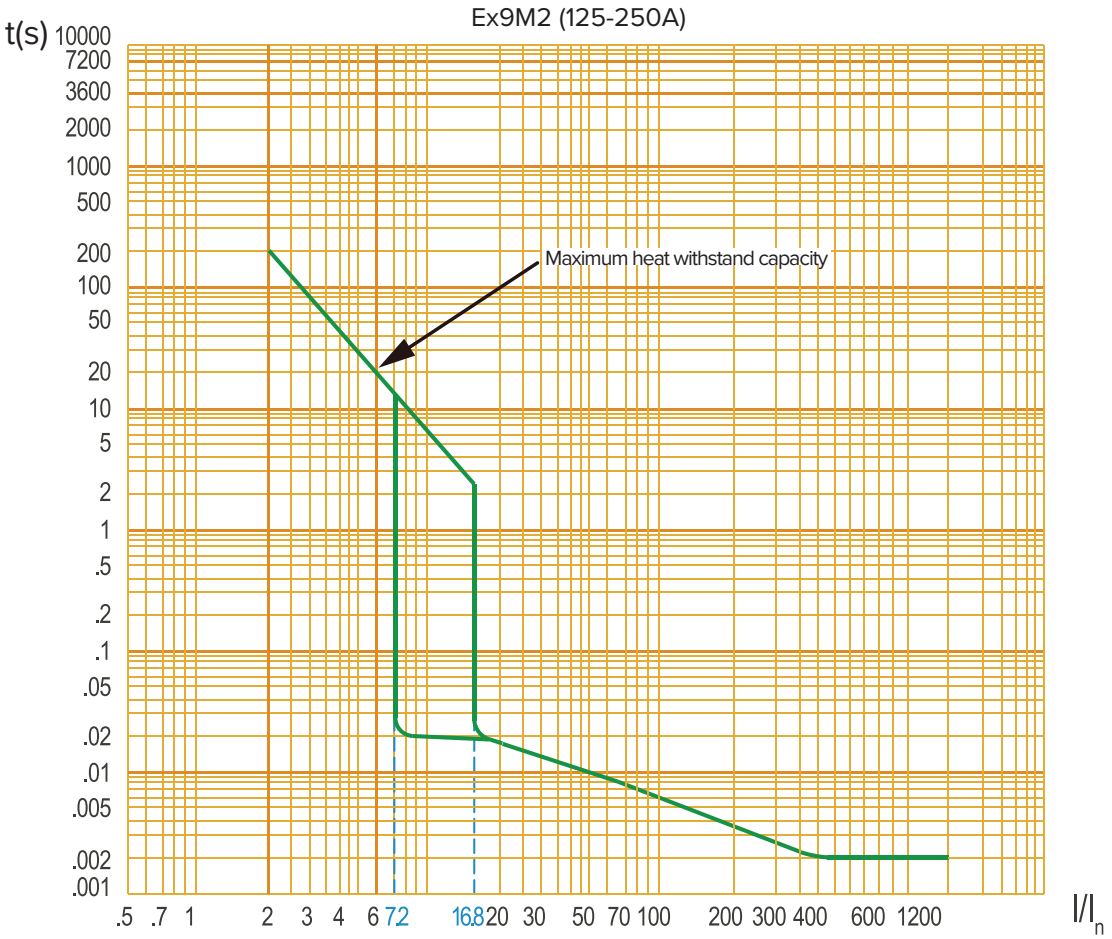
AC M Moulded Case Circuit Breakers up to 250 A

Installation space

mm



Tripping characteristics



AC M Moulded Case Circuit Breakers up to 500 A

General parameters		
Suitable for commercial as well as industrial applications		
I_i can be set in range (9 — 14) × I_n		
$I_{iN} = I_i$		
Internal accessories		
Auxiliary contact unit	AX21M	112071
Alarm contact unit	AL21M	112072
Shunt trip releases	SHT22	101416 — 101424
Undervoltage releases	UVT22	101425 — 101426
Max. number of installed internal accessories is 2 pcs of AX21M, 1 pc of AL21M and 1 pc of a release (SHT22 or UVT22)		
External accessories		
Direct rotary handle	RHD23	101483
Extended rotary handle	ERH23	101482
Remote motor operators	MOD23	101484, 101485, 112081, 101488
Terminal cover, short	TCV23 3P, 4P	101489, 102376
Terminal cover, long	TCE23 3P, 4P	101490, 102377
Phase barrier	PHS23	112112
Box terminals	MC23	103715
Tunnel terminal	MC23 W	103719, 103721
Plug-in base	PIA 23	112879, 112880, 112885, 112886
Withdrawable base	DOB 23	108887, 108899, 108893, 108905, 108889, 108901, 108895, 108907
Off position toggle key lock	KLK23	108854
Front plate connection	JP23	108861, 108867
Rear connection plate	RCP23	108873, 108877
Mechanical interlock	MIT23	108857
Draw-Out Base	DOB23	108877, 108899, 108893, 108905, 108889, 108901, 108895, 108907
Mounting depth spacers	WG10, WG13	106131, 106132
Mounting screws, screw type terminals as well as phase barriers in the scope of delivery		

Derating coefficient of Tripping Characteristics on accessories combination					
Combined accessory	**I_n (T) [A]**				
	250 A	**315 A**	**350 A**	**400 A**	**500 A**
PIA 23	1	1	1	1	0.95
DOB 23	1	1	1	1	1

AC M Moulded Case Circuit Breakers up to 500 A

Electrical parameters					
	Ex9M3S	**Ex9M3N**	**Ex9M3Q**	**Ex9M3H**	**Ex9M3P**
Tested according to	IEC/EN 60947-2				
Rated op. voltage U_e	380 / 400 / 415, 440, 500, 660 / 690 V AC				
Rated insulation voltage U_i	1 000 V				
Rated impulse withstand voltage U_{imp}	12 kV				
Rated frequency	50/60 Hz				
Rated ultimate short-circuit breaking capacity I_{cu}	36 kA / 415 V 10 kA / 690 V	50 kA / 415 V 12 kA / 690 V	70 kA / 415 V 12 kA / 690 V	100 kA / 415 V 15 kA / 690 V	150 kA / 415 V 15 kA / 690 V
Rated service short-circuit breaking capacity I_{cs}	36 kA / 415 V 10 kA / 690 V	50 kA / 415 V 12 kA / 690 V	70 kA / 415 V 12 kA / 690 V	100 kA / 415 V 15 kA / 690 V	150 kA / 415 V 15 kA / 690 V
Rated current	250 / 315 / 350 / 400 / 500 A				
Utilization category	A				
Mechanical service life	15 000 operation cycles				
Electrical service life	4 000 operation cycles / 415 V AC 1 500 operation cycles / 690 V AC				
Total disconnection time at short circuit	< 2 ms				
Line voltage connection	arbitrary above or below				

Dependence of Tripping Characteristics on Ambient Temperature					
T [°C]	I_n **(T) [A]**				
	250 A	**315 A**	**350 A**	**400 A**	**500 A**
-40	350	441	490	560	700
-35	343	433	481	550	687
-25	332	418	465	530	662
-15	319	402	447	510	637
-5	306	386	429	490	612
0	300	378	420	480	600
10	287	362	402	460	575
20	275	346	385	440	550
30	262	331	367	420	525
40	250	315	350	400	500
50	237	300	332	380	450
60	225	286	295	360	406
70	212	271	276	320	360

Power dissipation characteristics					
I_n	**250 A**	**315 A**	**350 A**	**400 A**	**500 A**
Pole resistance (mΩ)	0.35	0.25	0.25	0.15	0.12
Pole power dissipation (W)	21.9	24.8	30.6	24	30

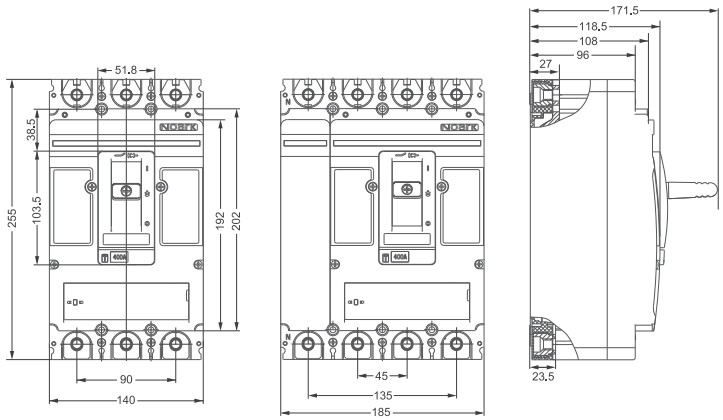
AC M Moulded Case Circuit Breakers up to 500 A

Mechanical parameters	
Device width 3P / 4P	140 mm / 185 mm
Device height	255 mm
Device depth	118.5 mm
Mounting	onto panel
Degree of protection	IP40, IP20 terminals
Terminals	M10 screws
Busbar thickness	≤ 8 mm
Busbar width	≤ 30 mm
Cable lug width	≤ 30 mm
Fastening torque of terminals	25 Nm
Ambient temperature	-40 — +70 °C
Relative humidity	≤ 50 % at 40 °C, ≤ 90 % monthly average
Pollution degree	3
Weight 3P / 4P	5.2 kg / 6.7 kg
Mounting position	vertical, can be rotated by 90° in each axis

Derating coefficient of technical parameters based on altitude				
Altitude	**≤ 2 000 m**	**3 000 m**	**4 000 m**	**5 000 m**
Derrating op. current I_n coefficient	1	0.96	0.93	0.9
Maximum rated op. voltage U_e	690 V AC	550 V AC	480 V AC	420 V AC
Rated insulation voltage U_i	1000 V AC	930 V AC	870 V AC	800 V AC
Rated impulse withstand voltage U_{imp}	12 kV	10 kV	8 kV	8 kV
Dielectric properties (U_{imp}=12 kV)	2550 V AC	2370 V AC	2200 V AC	2050 V AC

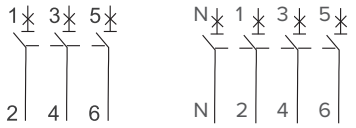
Dimensions

mm



3P 4P

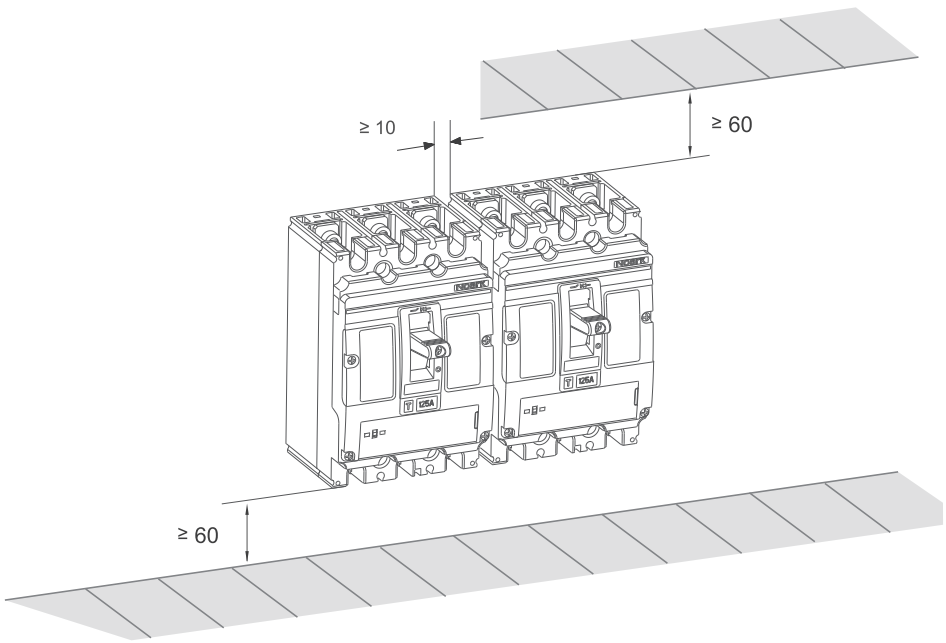
Wiring diagram



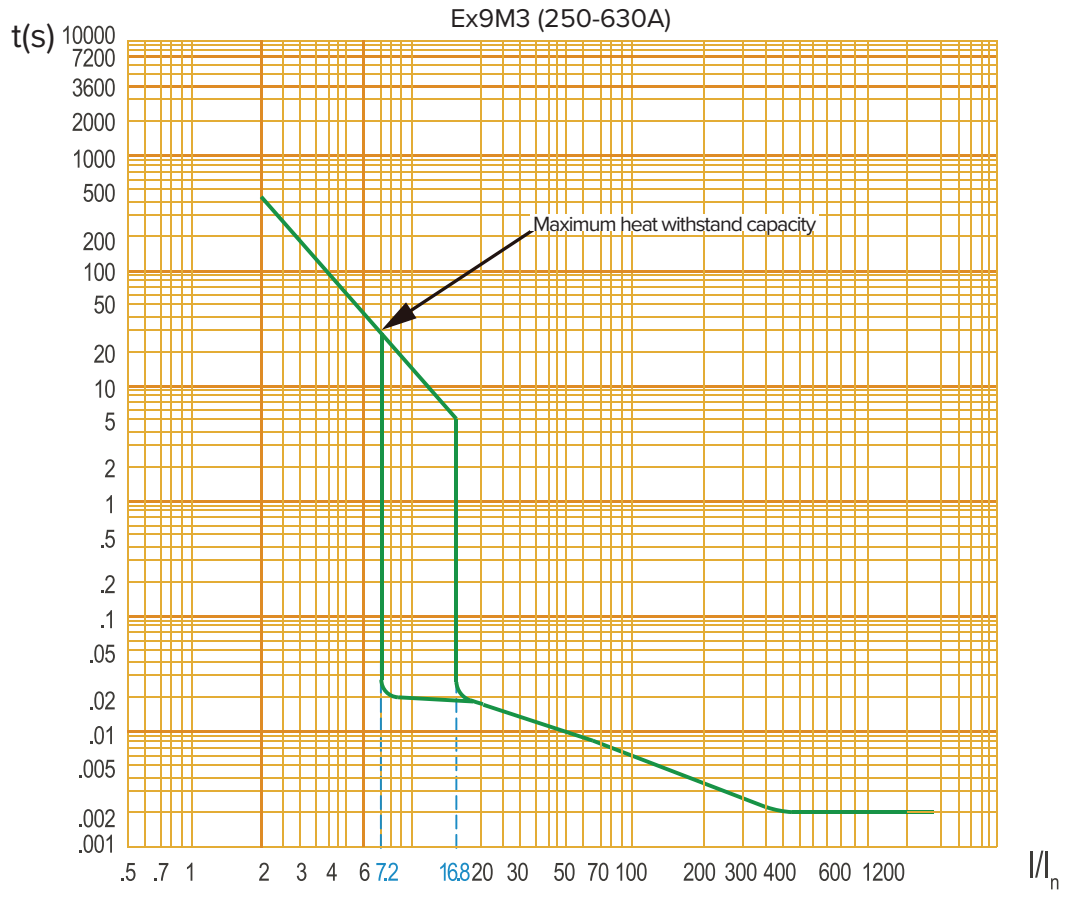
3P 4P

AC M Moulded Case Circuit Breakers up to 500 A

Installation space



Tripping characteristics



AC M Moulded Case Circuit Breakers up to 630 A

General parameters		
Suitable for commercial as well as industrial applications		
I_i can be set in range (9 — 14) × I_n		
$I_{iN} = I_i$		
Internal accessories		
Auxiliary contact unit	AX21M	112071
Alarm contact unit	AL21M	112072
Shunt trip releases	SHT24	103723 — 103730
Undervoltage releases	UVT24	103722 — 103740
Max. number of installed internal accessories is 2 pcs of AX21M, 1 pc of AL21M and 1 pc of a release (SHT24 or UVT24)		
External accessories		
Direct rotary handle	RHD24	103742
Extended rotary handle	ERH24	103741
Remote motor operators	MOD24	112873, 112874, 112082,103747
Terminal cover, short	TCV24 3P, 4P	103748, 103750
Terminal cover, long	TCE24 3P, 4P	103749, 104855
Phase barrier	PHS24	112113
Tunnel terminals	MC24 W2	106314
Rear connection plate	RCP24	108874, 108878
Mechanical interlock	MIT24	108858
Draw-Out Base	DOB24	118891, 118903, 118897, 118909
Mounting depth spacers	WG10, WG13	106131, 106132
Mounting screws, screw type terminals as well as phase barriers in the scope of delivery		

Derating coefficient of Tripping Characteristics on accessories combination			
Combined accessory	**I_n (T) [A]**		
	400 A	**530 A**	**630 A**
DOB 24	0.95	0.95	0.95

AC M Moulded Case Circuit Breakers up to 630 A

Electrical parameters					
	Ex9M4S	**Ex9M4N**	**Ex9M4Q**	**Ex9M4H**	**Ex9M4P**
Tested according to	IEC/EN 60947-2				
Rated op. voltage U_e	380 / 400 / 415, 440, 500, 660 / 690 V AC				
Rated insulation voltage U_i	1 000 V				
Rated impulse withstand voltage U_{imp}	12 kV				
Rated frequency	50/60 Hz				
Rated ultimate short-circuit breaking capacity I_{cu}	36 kA / 415 V 12 kA / 690 V	50 kA / 415 V 15 kA / 690 V	70 kA / 415 V 15 kA / 690 V	100 kA / 415 V 20 kA / 690 V	150 kA / 415 V 30 kA / 690 V
Rated service short-circuit breaking capacity I_{cs}	36 kA / 415 V 12 kA / 690 V	50 kA / 415 V 15 kA / 690 V	70 kA / 415 V 15 kA / 690 V	100 kA / 415 V 15 kA / 690 V	150 kA / 415 V 15 kA / 690 V
Rated current	400 / 500 / 630 A				
Utilization category	A				
Mechanical service life	10 000 operation cycles				
Electrical service life	3 000 operation cycles / 415 V AC 1 000 operation cycles / 690 V AC				
Total disconnection time at short circuit	< 2 ms				
Line voltage connection	arbitrary above or below				

Dependence of Tripping Characteristics on Ambient Temperature			
T [°C]	I_n **(T) [A]**		
	400 A	**500 A**	**630 A**
-40	560	700	882
-35	550	687	866
-25	530	662	836
-15	510	637	804
-5	490	612	772
0	480	600	756
10	460	575	724
20	440	550	693
30	420	525	661
40	400	500	630
50	390	490	580
60	370	460	530
70	320	400	490

Power dissipation characteristics			
I_n	**400 A**	**500 A**	**630 A**
Pole resistance (mΩ)	0.08	0.08	0.08
Pole power dissipation (W)	12.8	20	31.8

Technical Data **Ex9M4 AC M**

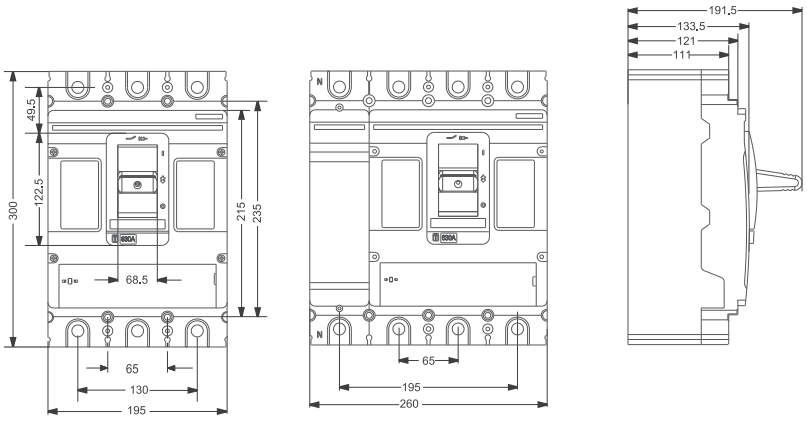
AC M Moulded Case Circuit Breakers up to 630 A

Mechanical parameters	
Device width 3P / 4P	195 mm / 260 mm
Device height	300 mm
Device depth	142 mm
Mounting	onto panel
Degree of protection	IP40, IP20 terminals
Terminals	M12 screws
Busbar thickness	≤ 10 mm
Busbar width	≤ 50 mm
Cable lug width	≤ 50 mm
Fastening torque of terminals	30 Nm
Ambient temperature	-40 — +70 °C
Relative humidity	≤ 50 % at 40 °C, ≤ 90 % monthly average
Pollution degree	3
Weight 3P / 4P	10.5 kg / 13.5 kg
Mounting position	vertical, can be rotated by 90° in each axis

Derating coefficient of technical parameters based on altitude				
Altitude	**≤ 2 000 m**	**3 000 m**	**4 000 m**	**5 000 m**
Derrating op. current I_n coefficient	1	0.96	0.93	0.9
Maximum rated op. voltage U_e	690 V AC	550 V AC	480 V AC	420 V AC
Rated insulation voltage U_i	1000 V AC	930 V AC	870 V AC	800 V AC
Rated impulse withstand voltage U_{imp}	12 kV	10 kV	8 kV	8 kV
Dielectric properties (U_{imp}=12 kV)	2550 V AC	2370 V AC	2200 V AC	2050 V AC

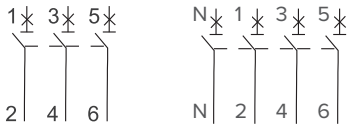
Dimensions

mm



3P 4P

Wiring diagram

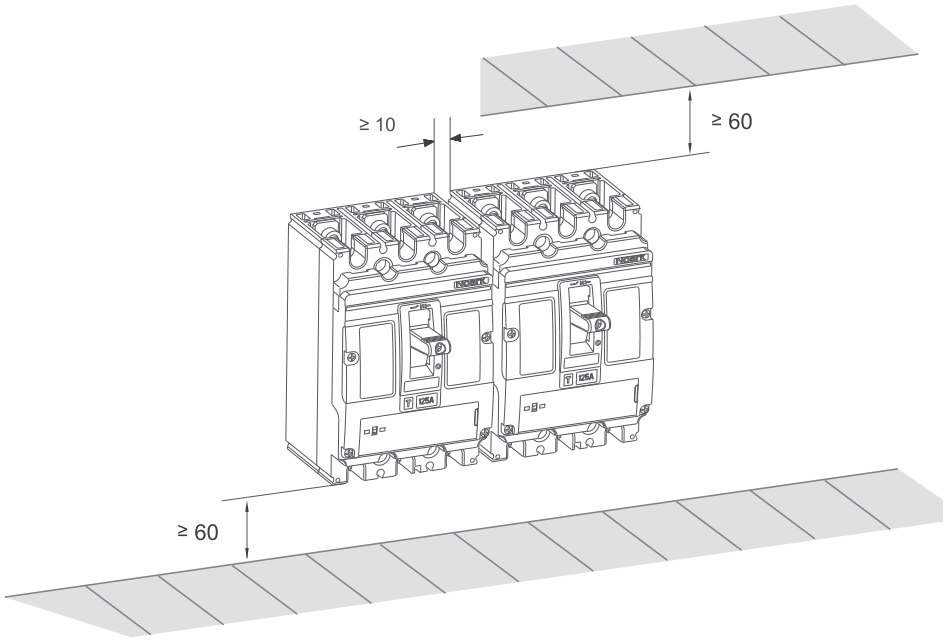


3P 4P

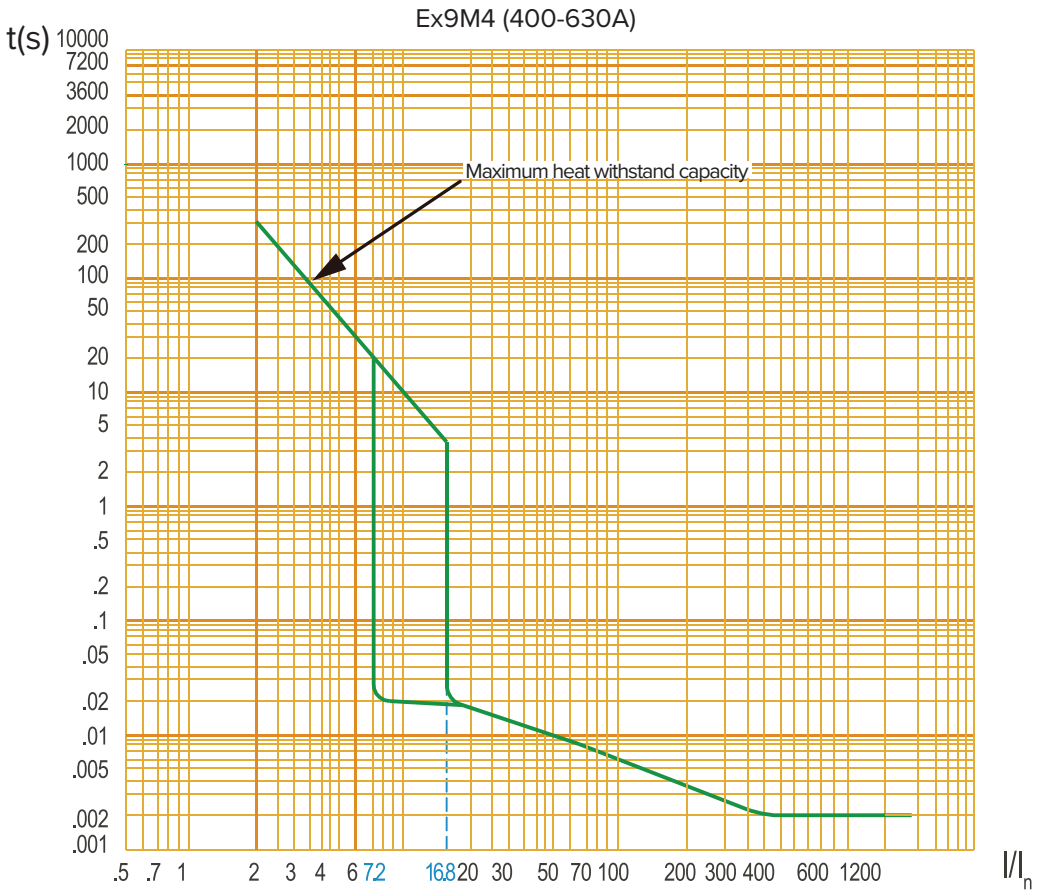
AC M Moulded Case Circuit Breakers up to 630 A

Installation space

mm



Tripping characteristics



AC M Moulded Case Circuit Breakers up to 800 A

General parameters		
Suitable for commercial as well as industrial applications		
I_i can be set in range (9 — 14) × I_n		
$I_{iN} = I_i$		
Internal accessories		
Auxiliary contact unit	AX21M	112071
Alarm contact unit	AL21M	112072
Shunt trip releases	SHT24	103723-103730
Undervoltage releases	UVT24	103722-103740
Max. number of installed internal accessories is 2 pcs of AX21M, 1 pc of AL21M and 1 pc of a release (SHT24 or UVT24)		
External accessories		
Direct rotary handle	RHD24	103742
Extended rotary handle	ERH24	103741
Remote motor operators	MOD24	112873, 112874, 112082,103747
Terminal cover, short	TCV24 3P, 4P	103748, 103750
Terminal cover, long	TCE24 3P, 4P	103749, 104855
Phase barrier	PB24	103751, 104856
Tunnel terminals	MC24 W2	106314
Rear connection plate	RCP24	108874, 108878
Mechanical interlock	MIT24	108858
Draw-Out Base	DOB24	118891, 118903, 118897, 118909
Mounting depth spacers	WG10, WG13	106131, 106132
Mounting screws, screw type terminals as well as phase barriers in the scope of delivery		

Derating coefficient of Tripping Characteristics on accessories combination			
Combined accessory	**I_n (T) [A]**		
	630 A	**700 A**	**800 A**
DOB 24	0.95	0.95	0.9

AC M Moulded Case Circuit Breakers up to 800 A

Electrical parameters					
	Ex9M5S	**Ex9M5N**	**Ex9M5Q**	**Ex9M5H**	**Ex9M5P**
Tested according to	IEC/EN 60947-2				
Rated op. voltage U_e	380 / 400 / 415, 440, 500, 660 / 690 V AC				
Rated insulation voltage U_i	1 000 V				
Rated impulse withstand voltage U_{imp}	12 kV				
Rated frequency	50/60 Hz				
Rated ultimate short-circuit breaking capacity I_{cu}	36 kA / 415 V 12 kA / 690 V	50 kA / 415 V 15 kA / 690 V	70 kA / 415 V 15 kA / 690 V	100 kA / 415 V 20 kA / 690 V	150 kA / 415 V 30 kA / 690 V
Rated service short-circuit breaking capacity I_{cs}	36 kA / 415 V 12 kA / 690 V	50 kA / 415 V 15 kA / 690 V	70 kA / 415 V 15 kA / 690 V	100 kA / 415 V 15 kA / 690 V	150 kA / 415 V 15 kA / 690 V
Rated current	630 / 700 / 800 A				
Utilization category	A				
Mechanical service life	10 000 operation cycles				
Electrical service life	2 000 operation cycles / 415 V AC 1 000 operation cycles / 690 V AC				
Total disconnection time at short circuit	< 2 ms				
Line voltage connection	arbitrary above or below				

Dependence of Tripping Characteristics on Ambient Temperature			
T [°C]	I_n **(T) [A]**		
	630 A	**700 A**	**800 A**
-40	882	980	1120
-35	866	962	1100
-25	836	927	1060
-15	804	892	1020
-5	772	857	980
0	756	840	960
10	724	805	920
20	693	770	880
30	661	735	840
40	630	700	800
50	580	670	735
60	530	645	670
70	490	575	625

Power dissipation characteristics			
I_n	**630 A**	**700 A**	**800 A**
Pole resistance (mΩ)	0.08	0.08	0.08
Pole power dissipation (W)	31.8	39.2	51.2

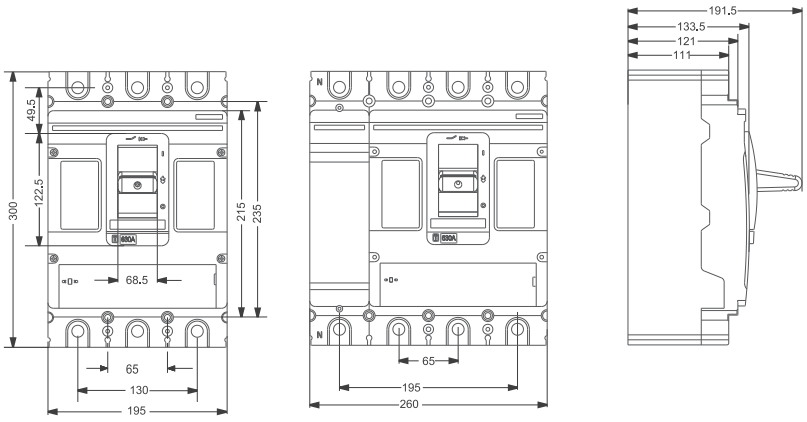
AC M Moulded Case Circuit Breakers up to 800 A

Mechanical parameters	
Device width 3P / 4P	195 mm / 260 mm
Device height	300 mm
Device depth	142 mm
Mounting	onto panel
Degree of protection	IP40, IP20 terminals
Terminals	M12 screws
Busbar thickness	≤ 10 mm
Busbar width	≤ 50 mm
Cable lug width	≤ 50 mm
Fastening torque of terminals	30 Nm
Ambient temperature	-40 — +70 °C
Relative humidity	≤ 50 % at 40 °C, ≤ 90 % monthly average
Pollution degree	3
Weight 3P / 4P	10.5 kg / 13.5 kg
Mounting position	vertical, can be rotated by 90° in each axis

Derating coefficient of technical parameters based on altitude				
Altitude	**≤ 2 000 m**	**3 000 m**	**4 000 m**	**5 000 m**
Derrating op. current I_n coefficient	1	0.96	0.93	0.9
Maximum rated op. voltage U_e	690 V AC	550 V AC	480 V AC	420 V AC
Rated insulation voltage U_i	1000 V AC	930 V AC	870 V AC	800 V AC
Rated impulse withstand voltage U_{imp}	12 kV	10 kV	8 kV	8 kV
Dielectric properties (U_{imp}=12 kV)	2550 V AC	2370 V AC	2200 V AC	2050 V AC

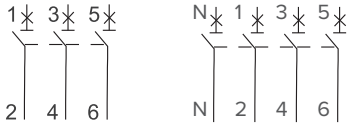
Dimensions

mm



3P 4P

Wiring diagram

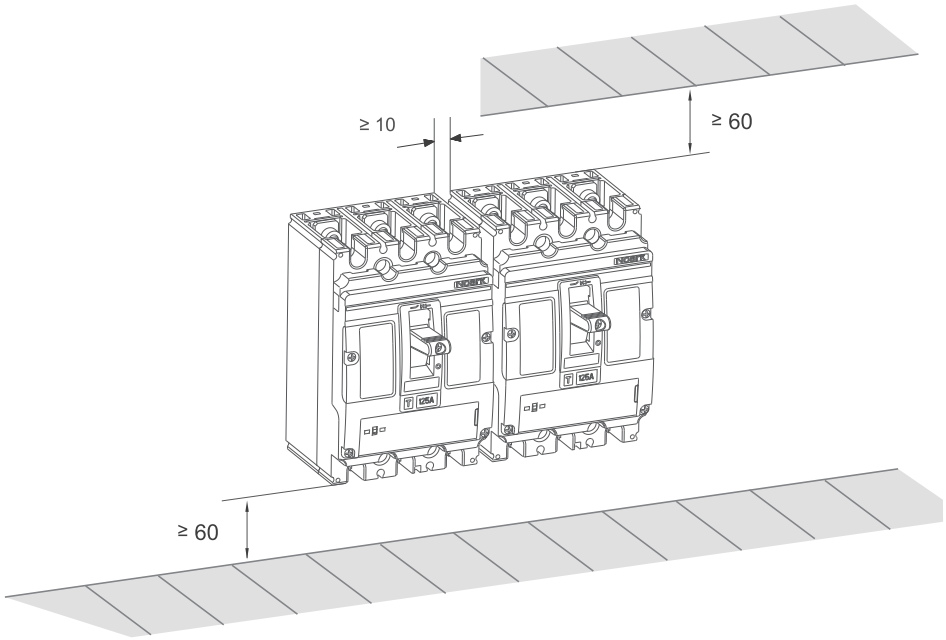


3P 4P

AC M Moulded Case Circuit Breakers up to 800 A

Installation space

mm



Tripping characteristics