Moulded Case Circuit Breakers Ex9M AC TM

- **Thermo-magnetic tripping unit for power distribution**
- **Frame sizes M1-M5**
- **Rated operating current up to 800 A**
- **1, 2, 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 Thermo-magnetic (TM) type are intended for applications in power distribution 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	TM	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	TM: Thermo Magnetic type for power distribution	M1: 16—160 A M2: 125—250 A M3: 250—500 A M4: 400—630 A M5: 630—800 A	1P: 1-pole 2P: 2-pole 3P: 3-pole 4P4T: 4-pole with protected N-pole

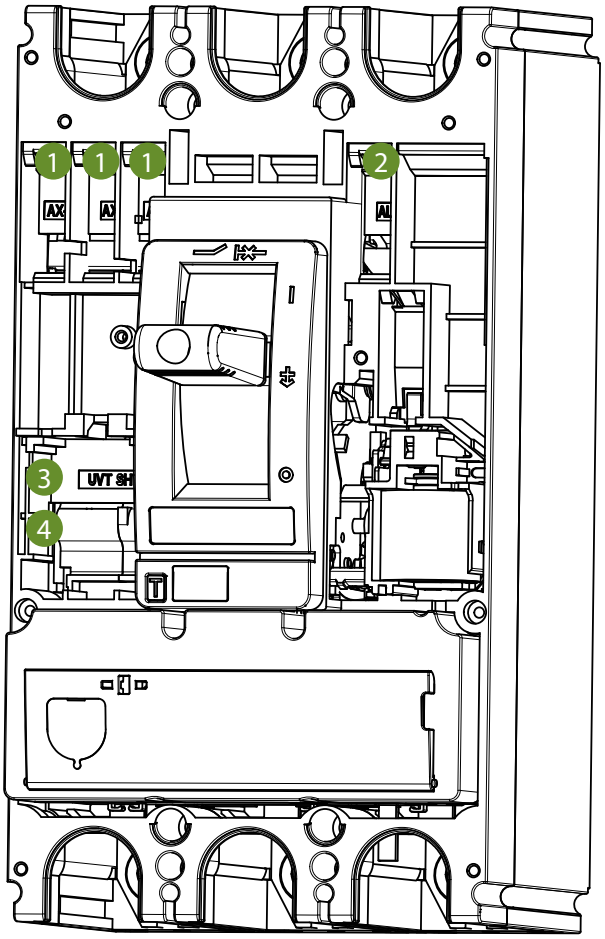
Certification marks

CE

NOARK

Moulded Case Circuit Breakers Ex9M AC TM

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 SHT2*i*

Undervoltage releases UVT2*i*

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

Moulded Case Circuit Breakers Ex9M AC TM

External accessories Ex9M1-M5 AC TM

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 TM

External accessories Ex9M1-M5 AC TM

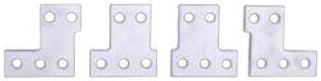
Tunnel terminals
MC2*i* W

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 TM

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

- 1, 2, 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 36 kA at 415 V AC
- I_r (1.0) Not adjustable (1 Pole)
- I_r can be set in range (0.7 — 1.0) × I_n
- I_i (10) range not adjustable (1 Pole)
- I_i can be set in range (5 — 10) × I_n for 125 A and 160 A types, otherwise is fixed at 10 × I_n
- I_{iN} fixed at 10 × I_n
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current i_n	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
1	16A	16 A	160 A	113950	Ex9M1S TM 16 1P	2/12
1	20A	20 A	200 A	113951	Ex9M1S TM 20 1P	2/12
1	25A	25 A	250 A	113952	Ex9M1S TM 25 1P	2/12
1	32A	32 A	320 A	113953	Ex9M1S TM 32 1P	2/12
1	40A	40 A	400 A	113954	Ex9M1S TM 40 1P	2/12
1	50A	50 A	500 A	113955	Ex9M1S TM 50 1P	2/12
1	63A	63 A	630 A	113956	Ex9M1S TM 63 1P	2/12
1	80A	80 A	800 A	113957	Ex9M1S TM 80 1P	2/12
1	100A	100 A	1000 A	113958	Ex9M1S TM 100 1P	2/12
1	125A	125 A	1250 A	113959	Ex9M1S TM 125 1P	2/12
1	160A	160 A	1600 A	113960	Ex9M1S TM 160 1P	2/12
2	16A	11-16 A	160 A	113984	Ex9M1S TM 16 2P	1/10
2	20A	14-20 A	200 A	113985	Ex9M1S TM 20 2P	1/10
2	25A	17-25 A	250 A	113986	Ex9M1S TM 25 2P	1/10
2	32A	22-32 A	320 A	113987	Ex9M1S TM 32 2P	1/10
2	40A	28-40 A	400 A	113988	Ex9M1S TM 40 2P	1/10
2	50A	35-50 A	500 A	113989	Ex9M1S TM 50 2P	1/10
2	63A	44-63 A	630 A	113990	Ex9M1S TM 63 2P	1/10
2	80A	56-80 A	800 A	113991	Ex9M1S TM 80 2P	1/10
2	100A	70-100 A	1000 A	113992	Ex9M1S TM 100 2P	1/10
2	125A	87-125 A	625-1250 A	113993	Ex9M1S TM 125 2P	1/10
2	160A	112-160 A	800-1600 A	113994	Ex9M1S TM 160 2P	1/10
3	16A	11-16 A	160 A	111791	Ex9M1S TM 16 3P	1/12
3	20A	14-20 A	200 A	111792	Ex9M1S TM 20 3P	1/12
3	25A	17-25 A	250 A	111793	Ex9M1S TM 25 3P	1/12
3	32A	22-32 A	320 A	111794	Ex9M1S TM 32 3P	1/12
3	40A	28-40 A	400 A	111795	Ex9M1S TM 40 3P	1/12
3	50A	35-50 A	500 A	111796	Ex9M1S TM 50 3P	1/12
3	63A	44-63 A	630 A	111797	Ex9M1S TM 63 3P	1/12
3	80A	56-80 A	800 A	111798	Ex9M1S TM 80 3P	1/12
3	100A	70-100 A	1000 A	111799	Ex9M1S TM 100 3P	1/12
3	125A	87-125 A	625-1250 A	111800	Ex9M1S TM 125 3P	1/12
3	160A	112-160 A	800-1600 A	111801	Ex9M1S TM 160 3P	1/12
4	16A	11-16 A	160 A	111802	Ex9M1S TM 16 4P4T	1/12
4	20A	14-20 A	200 A	111803	Ex9M1S TM 20 4P4T	1/12
4	25A	17-25 A	250 A	111804	Ex9M1S TM 25 4P4T	1/12
4	32A	22-32 A	320 A	111805	Ex9M1S TM 32 4P4T	1/12
4	40A	28-40 A	400 A	111806	Ex9M1S TM 40 4P4T	1/12
4	50A	35-50 A	500 A	111807	Ex9M1S TM 50 4P4T	1/12
4	63A	44-63 A	630 A	111808	Ex9M1S TM 63 4P4T	1/12
4	80A	56-80 A	800 A	111809	Ex9M1S TM 80 4P4T	1/12
4	100A	70-100 A	1000 A	111810	Ex9M1S TM 100 4P4T	1/12
4	125A	87-125 A	625-1250 A	111811	Ex9M1S TM 125 4P4T	1/12
4	160A	112-160 A	800-1600 A	111812	Ex9M1S TM 160 4P4T	1/12

Moulded Case Circuit Breakers Ex9M AC TM

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

- 1, 2, 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 50 kA at 415 V AC
- I_r (1.0) Not adjustable (1 Pole)
- I_r can be set in range (0.7 — 1.0) × I_n
- I_i (10) range not adjustable (1 Pole)
- I_i can be set in range (5 — 10) × I_n for 125 A and 160 A types, otherwise is fixed at 10 × I_n
- I_{iN} fixed at 10 × I_n
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current i_n	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
1	16A	16 A	160 A	113961	Ex9M1N TM 16 1P	2/12
1	20A	20 A	200 A	113962	Ex9M1N TM 20 1P	2/12
1	25A	25 A	250 A	113963	Ex9M1N TM 25 1P	2/12
1	32A	32 A	320 A	113964	Ex9M1N TM 32 1P	2/12
1	40A	40 A	400 A	113965	Ex9M1N TM 40 1P	2/12
1	50A	50 A	500 A	113966	Ex9M1N TM 50 1P	2/12
1	63A	63 A	630 A	113967	Ex9M1N TM 63 1P	2/12
1	80A	80 A	800 A	113968	Ex9M1N TM 80 1P	2/12
1	100A	100 A	1000 A	113969	Ex9M1N TM 100 1P	2/12
1	125A	125 A	1250 A	113970	Ex9M1N TM 125 1P	2/12
1	160A	160 A	1600 A	113971	Ex9M1N TM 160 1P	2/12
2	16A	11-16 A	160 A	113995	Ex9M1N TM 16 2P	1/10
2	20A	14-20 A	200 A	113996	Ex9M1N TM 20 2P	1/10
2	25A	17-25 A	250 A	113997	Ex9M1N TM 25 2P	1/10
2	32A	22-32 A	320 A	113998	Ex9M1N TM 32 2P	1/10
2	40A	28-40 A	400 A	113999	Ex9M1N TM 40 2P	1/10
2	50A	35-50 A	500 A	114000	Ex9M1N TM 50 2P	1/10
2	63A	44-63 A	630 A	114001	Ex9M1N TM 63 2P	1/10
2	80A	56-80 A	800 A	114002	Ex9M1N TM 80 2P	1/10
2	100A	70-100 A	1000 A	114003	Ex9M1N TM 100 2P	1/10
2	125A	87-125 A	625-1250 A	114004	Ex9M1N TM 125 2P	1/10
2	160A	112-160 A	800-1600 A	114005	Ex9M1N TM 160 2P	1/10
3	16A	11-16 A	160 A	111813	Ex9M1N TM 16 3P	1/12
3	20A	14-20 A	200 A	111814	Ex9M1N TM 20 3P	1/12
3	25A	17-25 A	250 A	111815	Ex9M1N TM 25 3P	1/12
3	32A	22-32 A	320 A	111816	Ex9M1N TM 32 3P	1/12
3	40A	28-40 A	400 A	111817	Ex9M1N TM 40 3P	1/12
3	50A	35-50 A	500 A	111818	Ex9M1N TM 50 3P	1/12
3	63A	44-63 A	630 A	111819	Ex9M1N TM 63 3P	1/12
3	80A	56-80 A	800 A	111820	Ex9M1N TM 80 3P	1/12
3	100A	70-100 A	1000 A	111821	Ex9M1N TM 100 3P	1/12
3	125A	87-125 A	625-1250 A	111822	Ex9M1N TM 125 3P	1/12
3	160A	112-160 A	800-1600 A	111823	Ex9M1N TM 160 3P	1/12
4	16A	11-16 A	160 A	111824	Ex9M1N TM 16 4P4T	1/12
4	20A	14-20 A	200 A	111825	Ex9M1N TM 20 4P4T	1/12
4	25A	17-25 A	250 A	111826	Ex9M1N TM 25 4P4T	1/12
4	32A	22-32 A	320 A	111827	Ex9M1N TM 32 4P4T	1/12
4	40A	28-40 A	400 A	111828	Ex9M1N TM 40 4P4T	1/12
4	50A	35-50 A	500 A	111829	Ex9M1N TM 50 4P4T	1/12
4	63A	44-63 A	630 A	111830	Ex9M1N TM 63 4P4T	1/12
4	80A	56-80 A	800 A	111831	Ex9M1N TM 80 4P4T	1/12
4	100A	70-100 A	1000 A	111832	Ex9M1N TM 100 4P4T	1/12
4	125A	87-125 A	625-1250 A	111833	Ex9M1N TM 125 4P4T	1/12
4	160A	112-160 A	800-1600 A	111834	Ex9M1N TM 160 4P4T	1/12

Moulded Case Circuit Breakers Ex9M AC TM

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

- 2, 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 70 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 for 125 A and 160 A types, otherwise is fixed at 10 × I_n
- I_{iN} fixed at 10 × I_n
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current i_n	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
2	16A	11-16 A	160 A	114006	Ex9M1Q TM 16 2P	1/10
2	20A	14-20 A	200 A	114007	Ex9M1Q TM 20 2P	1/10
2	25A	17-25 A	250 A	114008	Ex9M1Q TM 25 2P	1/10
2	32A	22-32 A	320 A	114009	Ex9M1Q TM 32 2P	1/10
2	40A	28-40 A	400 A	114010	Ex9M1Q TM 40 2P	1/10
2	50A	35-50 A	500 A	114011	Ex9M1Q TM 50 2P	1/10
2	63A	44-63 A	630 A	114012	Ex9M1Q TM 63 2P	1/10
2	80A	56-80 A	800 A	114013	Ex9M1Q TM 80 2P	1/10
2	100A	70-100 A	1000 A	114014	Ex9M1Q TM 100 2P	1/10
2	125A	87-125 A	625-1250 A	114015	Ex9M1Q TM 125 2P	1/10
2	160A	112-160 A	800-1600 A	114016	Ex9M1Q TM 160 2P	1/10
3	16A	11-16 A	160 A	111835	Ex9M1Q TM 16 3P	1/12
3	20A	14-20 A	200 A	111836	Ex9M1Q TM 20 3P	1/12
3	25A	17-25 A	250 A	111837	Ex9M1Q TM 25 3P	1/12
3	32A	22-32 A	320 A	111838	Ex9M1Q TM 32 3P	1/12
3	40A	28-40 A	400 A	111839	Ex9M1Q TM 40 3P	1/12
3	50A	35-50 A	500 A	111840	Ex9M1Q TM 50 3P	1/12
3	63A	44-63 A	630 A	111841	Ex9M1Q TM 63 3P	1/12
3	80A	56-80 A	800 A	111842	Ex9M1Q TM 80 3P	1/12
3	100A	70-100 A	1000 A	111843	Ex9M1Q TM 100 3P	1/12
3	125A	87-125 A	625-1250 A	111844	Ex9M1Q TM 125 3P	1/12
3	160A	112-160 A	800-1600 A	111845	Ex9M1Q TM 160 3P	1/12
4	16A	11-16 A	160 A	111846	Ex9M1Q TM 16 4P4T	1/12
4	20A	14-20 A	200 A	111847	Ex9M1Q TM 20 4P4T	1/12
4	25A	17-25 A	250 A	111848	Ex9M1Q TM 25 4P4T	1/12
4	32A	22-32 A	320 A	111849	Ex9M1Q TM 32 4P4T	1/12
4	40A	28-40 A	400 A	111850	Ex9M1Q TM 40 4P4T	1/12
4	50A	35-50 A	500 A	111851	Ex9M1Q TM 50 4P4T	1/12
4	63A	44-63 A	630 A	111852	Ex9M1Q TM 63 4P4T	1/12
4	80A	56-80 A	800 A	111853	Ex9M1Q TM 80 4P4T	1/12
4	100A	70-100 A	1000 A	111854	Ex9M1Q TM 100 4P4T	1/12
4	125A	87-125 A	625-1250 A	111855	Ex9M1Q TM 125 4P4T	1/12
4	160A	112-160 A	800-1600 A	111856	Ex9M1Q TM 160 4P4T	1/12

Moulded Case Circuit Breakers Ex9M AC TM

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

- 2, 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 100 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 for 125 A and 160 A types, otherwise is fixed at 10 × I_n
- I_{iN} fixed at 10 × I_n
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current i_n	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
2	16A	11-16 A	160 A	114017	Ex9M1H TM 16 2P	1/10
2	20A	14-20 A	200 A	114018	Ex9M1H TM 20 2P	1/10
2	25A	17-25 A	250 A	114019	Ex9M1H TM 25 2P	1/10
2	32A	22-32 A	320 A	114020	Ex9M1H TM 32 2P	1/10
2	40A	28-40 A	400 A	114021	Ex9M1H TM 40 2P	1/10
2	50A	35-50 A	500 A	114022	Ex9M1H TM 50 2P	1/10
2	63A	44-63 A	630 A	114023	Ex9M1H TM 63 2P	1/10
2	80A	56-80 A	800 A	114024	Ex9M1H TM 80 2P	1/10
2	100A	70-100 A	1000 A	114025	Ex9M1H TM 100 2P	1/10
2	125A	87-125 A	625-1250 A	114026	Ex9M1H TM 125 2P	1/10
2	160A	112-160 A	800-1600 A	114027	Ex9M1H TM 160 2P	1/10
3	16A	11-16 A	160 A	111857	Ex9M1H TM 16 3P	1/12
3	20A	14-20 A	200 A	111858	Ex9M1H TM 20 3P	1/12
3	25A	17-25 A	250 A	111859	Ex9M1H TM 25 3P	1/12
3	32A	22-32 A	320 A	111860	Ex9M1H TM 32 3P	1/12
3	40A	28-40 A	400 A	111861	Ex9M1H TM 40 3P	1/12
3	50A	35-50 A	500 A	111862	Ex9M1H TM 50 3P	1/12
3	63A	44-63 A	630 A	111863	Ex9M1H TM 63 3P	1/12
3	80A	56-80 A	800 A	111864	Ex9M1H TM 80 3P	1/12
3	100A	70-100 A	1000 A	111865	Ex9M1H TM 100 3P	1/12
3	125A	87-125 A	625-1250 A	111866	Ex9M1H TM 125 3P	1/12
3	160A	112-160 A	800-1600 A	111867	Ex9M1H TM 160 3P	1/12
4	16A	11-16 A	160 A	111868	Ex9M1H TM 16 4P4T	1/12
4	20A	14-20 A	200 A	111869	Ex9M1H TM 20 4P4T	1/12
4	25A	17-25 A	250 A	111870	Ex9M1H TM 25 4P4T	1/12
4	32A	22-32 A	320 A	111871	Ex9M1H TM 32 4P4T	1/12
4	40A	28-40 A	400 A	111872	Ex9M1H TM 40 4P4T	1/12
4	50A	35-50 A	500 A	111873	Ex9M1H TM 50 4P4T	1/12
4	63A	44-63 A	630 A	111874	Ex9M1H TM 63 4P4T	1/12
4	80A	56-80 A	800 A	111875	Ex9M1H TM 80 4P4T	1/12
4	100A	70-100 A	1000 A	111876	Ex9M1H TM 100 4P4T	1/12
4	125A	87-125 A	625-1250 A	111877	Ex9M1H TM 125 4P4T	1/12
4	160A	112-160 A	800-1600 A	111878	Ex9M1H TM 160 4P4T	1/12

Moulded Case Circuit Breakers Ex9M AC TM

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

- 2, 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 150 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 for 125 A and 160 A types, otherwise is fixed at 10 × I_n
- I_{iN} fixed at 10 × I_n
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current i_n	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
2	16A	11-16 A	160 A	114028	Ex9M1P TM 16 2P	1/10
2	20A	14-20 A	200 A	114029	Ex9M1P TM 20 2P	1/10
2	25A	17-25 A	250 A	114030	Ex9M1P TM 25 2P	1/10
2	32A	22-32 A	320 A	114031	Ex9M1P TM 32 2P	1/10
2	40A	28-40 A	400 A	114032	Ex9M1P TM 40 2P	1/10
2	50A	35-50 A	500 A	114033	Ex9M1P TM 50 2P	1/10
2	63A	44-63 A	630 A	114034	Ex9M1P TM 63 2P	1/10
2	80A	56-80 A	800 A	114035	Ex9M1P TM 80 2P	1/10
2	100A	70-100 A	1000 A	114036	Ex9M1P TM 100 2P	1/10
2	125A	87-125 A	625-1250 A	114037	Ex9M1P TM 125 2P	1/10
2	160A	112-160 A	800-1600 A	114038	Ex9M1P TM 160 2P	1/10
3	16A	11-16 A	160 A	111879	Ex9M1P TM 16 3P	1/12
3	20A	14-20 A	200 A	111880	Ex9M1P TM 20 3P	1/12
3	25A	17-25 A	250 A	111881	Ex9M1P TM 25 3P	1/12
3	32A	22-32 A	320 A	111882	Ex9M1P TM 32 3P	1/12
3	40A	28-40 A	400 A	111883	Ex9M1P TM 40 3P	1/12
3	50A	35-50 A	500 A	111884	Ex9M1P TM 50 3P	1/12
3	63A	44-63 A	630 A	111885	Ex9M1P TM 63 3P	1/12
3	80A	56-80 A	800 A	111886	Ex9M1P TM 80 3P	1/12
3	100A	70-100 A	1000 A	111887	Ex9M1P TM 100 3P	1/12
3	125A	87-125 A	625-1250 A	111888	Ex9M1P TM 125 3P	1/12
3	160A	112-160 A	800-1600 A	111889	Ex9M1P TM 160 3P	1/12
4	16A	11-16 A	160 A	111890	Ex9M1P TM 16 4P4T	1/12
4	20A	14-20 A	200 A	111891	Ex9M1P TM 20 4P4T	1/12
4	25A	17-25 A	250 A	111892	Ex9M1P TM 25 4P4T	1/12
4	32A	22-32 A	320 A	111893	Ex9M1P TM 32 4P4T	1/12
4	40A	28-40 A	400 A	111894	Ex9M1P TM 40 4P4T	1/12
4	50A	35-50 A	500 A	111895	Ex9M1P TM 50 4P4T	1/12
4	63A	44-63 A	630 A	111896	Ex9M1P TM 63 4P4T	1/12
4	80A	56-80 A	800 A	111897	Ex9M1P TM 80 4P4T	1/12
4	100A	70-100 A	1000 A	111898	Ex9M1P TM 100 4P4T	1/12
4	125A	87-125 A	625-1250 A	111899	Ex9M1P TM 125 4P4T	1/12
4	160A	112-160 A	800-1600 A	111900	Ex9M1P TM 160 4P4T	1/12

Moulded Case Circuit Breakers Ex9M AC TM

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

- 1, 2, 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 36 kA at 415 V AC
- I_r (1.0) Not adjustable (1 Pole)
- I_r can be set in range (0.7 — 1.0) × I_n
- I_i (10) range not adjustable (1 Pole)
- I_i can be set in range (7 — 12) × I_n for 125 A and (5 — 10) × I_n for other devices up to 250 A
- $I_{IN} = I_i$
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current i_n	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
1	125 A	125 A	1250 A	113972	Ex9M2S TM 125 1P	2/16
1	160 A	160 A	1600 A	113973	Ex9M2S TM 160 1P	2/16
1	180 A	180 A	1800 A	113974	Ex9M2S TM 180 1P	2/16
1	200 A	200 A	2000 A	113975	Ex9M2S TM 200 1P	2/16
1	225 A	225 A	2250 A	113976	Ex9M2S TM 225 1P	2/16
1	250 A	250 A	2500 A	113977	Ex9M2S TM 250 1P	2/16
2	125 A	87-125 A	875-1500 A	114039	Ex9M2S TM 125 2P	1/8
2	160 A	112-160 A	800-1600 A	114040	Ex9M2S TM 160 2P	1/8
2	180 A	126-180 A	900-1800 A	114041	Ex9M2S TM 180 2P	1/8
2	200 A	140-200 A	1000-2000 A	114042	Ex9M2S TM 200 2P	1/8
2	225 A	158-225 A	1125-2250 A	114043	Ex9M2S TM 225 2P	1/8
2	250 A	175-250 A	1250-2500 A	114044	Ex9M2S TM 250 2P	1/8
3	125 A	87-125 A	875-1500 A	111901	Ex9M2S TM 125 3P	1/8
3	160 A	112-160 A	800-1600 A	111902	Ex9M2S TM 160 3P	1/8
3	180 A	126-180 A	900-1800 A	111903	Ex9M2S TM 180 3P	1/8
3	200 A	140-200 A	1000-2000 A	111904	Ex9M2S TM 200 3P	1/8
3	225 A	158-225 A	1125-2250 A	111905	Ex9M2S TM 225 3P	1/8
3	250 A	175-250 A	1250-2500 A	111906	Ex9M2S TM 250 3P	1/8
4	125 A	87-125 A	875-1500 A	111907	Ex9M2S TM 125 4P4T	1/8
4	160 A	112-160 A	800-1600 A	111908	Ex9M2S TM 160 4P4T	1/8
4	180 A	126-180 A	900-1800 A	111909	Ex9M2S TM 180 4P4T	1/8
4	200 A	140-200 A	1000-2000 A	111910	Ex9M2S TM 200 4P4T	1/8
4	225 A	158-225 A	1125-2250 A	111911	Ex9M2S TM 225 4P4T	1/8
4	250 A	175-250 A	1250-2500 A	111912	Ex9M2S TM 250 4P4T	1/8

Moulded Case Circuit Breakers Ex9M AC TM

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

- 1, 2, 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 50 kA at 415 V AC
- I_r (1.0) Not adjustable (1 Pole)
- I_r can be set in range (0.7 — 1.0) × I_n
- I_i (10) range not adjustable (1 Pole)
- I_i can be set in range (7 — 12) × I_n for 125 A and (5 — 10) × I_n for other devices up to 250 A
- $I_{IN} = I_i$
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current i_n	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
1	125 A	125 A	1250 A	113978	Ex9M2N TM 125 1P	2/16
1	160 A	160 A	1600 A	113979	Ex9M2N TM 160 1P	2/16
1	180 A	180 A	1800 A	113980	Ex9M2N TM 180 1P	2/16
1	200 A	200 A	2000 A	113981	Ex9M2N TM 200 1P	2/16
1	225 A	225 A	2250 A	113982	Ex9M2N TM 225 1P	2/16
1	250 A	250 A	2500 A	113983	Ex9M2N TM 250 1P	2/16
2	125 A	87-125 A	875-1500 A	114045	Ex9M2N TM 125 2P	1/8
2	160 A	112-160 A	800-1600 A	114046	Ex9M2N TM 160 2P	1/8
2	180 A	126-180 A	900-1800 A	114047	Ex9M2N TM 180 2P	1/8
2	200 A	140-200 A	1000-2000 A	114048	Ex9M2N TM 200 2P	1/8
2	225 A	158-225 A	1125-2250 A	114049	Ex9M2N TM 225 2P	1/8
2	250 A	175-250 A	1250-2500 A	114050	Ex9M2N TM 250 2P	1/8
3	125 A	87-125 A	875-1500 A	111913	Ex9M2N TM 125 3P	1/8
3	160 A	112-160 A	800-1600 A	111914	Ex9M2N TM 160 3P	1/8
3	180 A	126-180 A	900-1800 A	111915	Ex9M2N TM 180 3P	1/8
3	200 A	140-200 A	1000-2000 A	111916	Ex9M2N TM 200 3P	1/8
3	225 A	158-225 A	1125-2250 A	111917	Ex9M2N TM 225 3P	1/8
3	250 A	175-250 A	1250-2500 A	111918	Ex9M2N TM 250 3P	1/8
4	125 A	87-125 A	875-1500 A	111919	Ex9M2N TM 125 4P4T	1/8
4	160 A	112-160 A	800-1600 A	111920	Ex9M2N TM 160 4P4T	1/8
4	180 A	126-180 A	900-1800 A	111921	Ex9M2N TM 180 4P4T	1/8
4	200 A	140-200 A	1000-2000 A	111922	Ex9M2N TM 200 4P4T	1/8
4	225 A	158-225 A	1125-2250 A	111923	Ex9M2N TM 225 4P4T	1/8
4	250 A	175-250 A	1250-2500 A	111924	Ex9M2N TM 250 4P4T	1/8

Moulded Case Circuit Breakers Ex9M AC TM

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

- 2, 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 75 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 (7 — 12) × I_n for 125 A and (5 — 10) × I_n for other devices up to 250 A
- $I_{iN} = I_i$
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current i_n	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
2	125 A	87-125 A	875-1500 A	114051	Ex9M2Q TM 125 2P	1/8
2	160 A	112-160 A	800-1600 A	114052	Ex9M2Q TM 160 2P	1/8
2	180 A	126-180 A	900-1800 A	114053	Ex9M2Q TM 180 2P	1/8
2	200 A	140-200 A	1000-2000 A	114054	Ex9M2Q TM 200 2P	1/8
2	225 A	158-225 A	1125-2250 A	114055	Ex9M2Q TM 225 2P	1/8
2	250 A	175-250 A	1250-2500 A	114056	Ex9M2Q TM 250 2P	1/8
3	125 A	87-125 A	875-1500 A	111925	Ex9M2Q TM 125 3P	1/8
3	160 A	112-160 A	800-1600 A	111926	Ex9M2Q TM 160 3P	1/8
3	180 A	126-180 A	900-1800 A	111927	Ex9M2Q TM 180 3P	1/8
3	200 A	140-200 A	1000-2000 A	111928	Ex9M2Q TM 200 3P	1/8
3	225 A	158-225 A	1125-2250 A	111929	Ex9M2Q TM 225 3P	1/8
3	250 A	175-250 A	1250-2500 A	111930	Ex9M2Q TM 250 3P	1/8
4	125 A	87-125 A	875-1500 A	111931	Ex9M2Q TM 125 4P4T	1/8
4	160 A	112-160 A	800-1600 A	111932	Ex9M2Q TM 160 4P4T	1/8
4	180 A	126-180 A	900-1800 A	111933	Ex9M2Q TM 180 4P4T	1/8
4	200 A	140-200 A	1000-2000 A	111934	Ex9M2Q TM 200 4P4T	1/8
4	225 A	158-225 A	1125-2250 A	111935	Ex9M2Q TM 225 4P4T	1/8
4	250 A	175-250 A	1250-2500 A	111936	Ex9M2Q TM 250 4P4T	1/8

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

- 2, 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 100 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 (7 — 12) × I_n for 125 A and (5 — 10) × I_n for other devices up to 250 A
- $I_{iN} = I_i$
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current i_n	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
2	125 A	87-125 A	875-1500 A	114057	Ex9M2H TM 125 2P	1/8
2	160 A	112-160 A	800-1600 A	114058	Ex9M2H TM 160 2P	1/8
2	180 A	126-180 A	900-1800 A	114059	Ex9M2H TM 180 2P	1/8
2	200 A	140-200 A	1000-2000 A	114060	Ex9M2H TM 200 2P	1/8
2	225 A	158-225 A	1125-2250 A	114061	Ex9M2H TM 225 2P	1/8
2	250 A	175-250 A	1250-2500 A	114062	Ex9M2H TM 250 2P	1/8
3	125 A	87-125 A	875-1500 A	111937	Ex9M2H TM 125 3P	1/8
3	160 A	112-160 A	800-1600 A	111938	Ex9M2H TM 160 3P	1/8
3	180 A	126-180 A	900-1800 A	111939	Ex9M2H TM 180 3P	1/8
3	200 A	140-200 A	1000-2000 A	111940	Ex9M2H TM 200 3P	1/8
3	225 A	158-225 A	1125-2250 A	111941	Ex9M2H TM 225 3P	1/8
3	250 A	175-250 A	1250-2500 A	111942	Ex9M2H TM 250 3P	1/8
4	125 A	87-125 A	875-1500 A	111943	Ex9M2H TM 125 4P4T	1/8
4	160 A	112-160 A	800-1600 A	111944	Ex9M2H TM 160 4P4T	1/8
4	180 A	126-180 A	900-1800 A	111945	Ex9M2H TM 180 4P4T	1/8
4	200 A	140-200 A	1000-2000 A	111946	Ex9M2H TM 200 4P4T	1/8
4	225 A	158-225 A	1125-2250 A	111947	Ex9M2H TM 225 4P4T	1/8
4	250 A	175-250 A	1250-2500 A	111948	Ex9M2H TM 250 4P4T	1/8

Moulded Case Circuit Breakers Ex9M AC TM

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

- 2, 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu}$ = 150 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 (7 — 12) × I_n for 125 A and (5 — 10) × I_n for other devices up to 250 A
- $I_{iN} = I_i$
- Mounting screws, box terminals as well as phase barriers in the scope of delivery

Poles	Rated current i_n	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
2	125 A	87-125 A	875-1500 A	114063	Ex9M2P TM 125 2P	1/8
2	160 A	112-160 A	800-1600 A	114064	Ex9M2P TM 160 2P	1/8
2	180 A	126-180 A	900-1800 A	114065	Ex9M2P TM 180 2P	1/8
2	200 A	140-200 A	1000-2000 A	114066	Ex9M2P TM 200 2P	1/8
2	225 A	158-225 A	1125-2250 A	114067	Ex9M2P TM 225 2P	1/8
2	250 A	175-250 A	1250-2500 A	114068	Ex9M2P TM 250 2P	1/8
3	125 A	87-125 A	875-1500 A	111949	Ex9M2P TM 125 3P	1/8
3	160 A	112-160 A	800-1600 A	111950	Ex9M2P TM 160 3P	1/8
3	180 A	126-180 A	900-1800 A	111951	Ex9M2P TM 180 3P	1/8
3	200 A	140-200 A	1000-2000 A	111952	Ex9M2P TM 200 3P	1/8
3	225 A	158-225 A	1125-2250 A	111953	Ex9M2P TM 225 3P	1/8
3	250 A	175-250 A	1250-2500 A	111954	Ex9M2P TM 250 3P	1/8
4	125 A	87-125 A	875-1500 A	111955	Ex9M2P TM 125 4P4T	1/8
4	160 A	112-160 A	800-1600 A	111956	Ex9M2P TM 160 4P4T	1/8
4	180 A	126-180 A	900-1800 A	111957	Ex9M2P TM 180 4P4T	1/8
4	200 A	140-200 A	1000-2000 A	111958	Ex9M2P TM 200 4P4T	1/8
4	225 A	158-225 A	1125-2250 A	111959	Ex9M2P TM 225 4P4T	1/8
4	250 A	175-250 A	1250-2500 A	111960	Ex9M2P TM 250 4P4T	1/8

Moulded Case Circuit Breakers Ex9M AC TM

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_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	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
3	250 A	175-250 A	1250-2500 A	111961	Ex9M3S TM 250 3P	1/2
3	315 A	220-315 A	1575-3150 A	111962	Ex9M3S TM 315 3P	1/2
3	350 A	245-350 A	1750-3500 A	111963	Ex9M3S TM 350 3P	1/2
3	400 A	280-400 A	2000-4000 A	111964	Ex9M3S TM 400 3P	1/2
3	500 A	350-500 A	2500-5000 A	111965	Ex9M3S TM 500 3P	1/2
4	250 A	175-250 A	1250-2500 A	111966	Ex9M3S TM 250 4P4T	1/2
4	315 A	220-315 A	1575-3150 A	111967	Ex9M3S TM 315 4P4T	1/2
4	350 A	245-350 A	1750-3500 A	111968	Ex9M3S TM 350 4P4T	1/2
4	400 A	280-400 A	2000-4000 A	111969	Ex9M3S TM 400 4P4T	1/2
4	500 A	350-500 A	2500-5000 A	111970	Ex9M3S TM 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_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	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
3	250 A	175-250 A	1250-2500 A	111971	Ex9M3N TM 250 3P	1/2
3	315 A	220-315 A	1575-3150 A	111972	Ex9M3N TM 315 3P	1/2
3	350 A	245-350 A	1750-3500 A	111973	Ex9M3N TM 350 3P	1/2
3	400 A	280-400 A	2000-4000 A	111974	Ex9M3N TM 400 3P	1/2
3	500 A	350-500 A	2500-5000 A	111975	Ex9M3N TM 500 3P	1/2
4	250 A	175-250 A	1250-2500 A	111976	Ex9M3N TM 250 4P4T	1/2
4	315 A	220-315 A	1575-3150 A	111977	Ex9M3N TM 315 4P4T	1/2
4	350 A	245-350 A	1750-3500 A	111978	Ex9M3N TM 350 4P4T	1/2
4	400 A	280-400 A	2000-4000 A	111979	Ex9M3N TM 400 4P4T	1/2
4	500 A	350-500 A	2500-5000 A	111980	Ex9M3N TM 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_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	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
3	250 A	175-250 A	1250-2500 A	111981	Ex9M3Q TM 250 3P	1/2
3	315 A	220-315 A	1575-3150 A	111982	Ex9M3Q TM 315 3P	1/2
3	350 A	245-350 A	1750-3500 A	111983	Ex9M3Q TM 350 3P	1/2
3	400 A	280-400 A	2000-4000 A	111984	Ex9M3Q TM 400 3P	1/2
3	500 A	350-500 A	2500-5000 A	111985	Ex9M3Q TM 500 3P	1/2
4	250 A	175-250 A	1250-2500 A	111986	Ex9M3Q TM 250 4P4T	1/2
4	315 A	220-315 A	1575-3150 A	111987	Ex9M3Q TM 315 4P4T	1/2
4	350 A	245-350 A	1750-3500 A	111988	Ex9M3Q TM 350 4P4T	1/2
4	400 A	280-400 A	2000-4000 A	111989	Ex9M3Q TM 400 4P4T	1/2
4	500 A	350-500 A	2500-5000 A	111990	Ex9M3Q TM 500 4P4T	1/2

Moulded Case Circuit Breakers Ex9M AC TM

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_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	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
3	250 A	175-250 A	1250-2500 A	111991	Ex9M3H TM 250 3P	1/2
3	315 A	220-315 A	1575-3150 A	111992	Ex9M3H TM 315 3P	1/2
3	350 A	245-350 A	1750-3500 A	111993	Ex9M3H TM 350 3P	1/2
3	400 A	280-400 A	2000-4000 A	111994	Ex9M3H TM 400 3P	1/2
3	500 A	350-500 A	2500-5000 A	111995	Ex9M3H TM 500 3P	1/2
4	250 A	175-250 A	1250-2500 A	111996	Ex9M3H TM 250 4P4T	1/2
4	315 A	220-315 A	1575-3150 A	111997	Ex9M3H TM 315 4P4T	1/2
4	350 A	245-350 A	1750-3500 A	111998	Ex9M3H TM 350 4P4T	1/2
4	400 A	280-400 A	2000-4000 A	111999	Ex9M3H TM 400 4P4T	1/2
4	500 A	350-500 A	2500-5000 A	112000	Ex9M3H TM 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_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	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
3	250 A	175-250 A	1250-2500 A	112001	Ex9M3P TM 250 3P	1/2
3	315 A	220-315 A	1575-3150 A	112002	Ex9M3P TM 315 3P	1/2
3	350 A	245-350 A	1750-3500 A	112003	Ex9M3P TM 350 3P	1/2
3	400 A	280-400 A	2000-4000 A	112004	Ex9M3P TM 400 3P	1/2
3	500 A	350-500 A	2500-5000 A	112005	Ex9M3P TM 500 3P	1/2
4	250 A	175-250 A	1250-2500 A	112006	Ex9M3P TM 250 4P4T	1/2
4	315 A	220-315 A	1575-3150 A	112007	Ex9M3P TM 315 4P4T	1/2
4	350 A	245-350 A	1750-3500 A	112008	Ex9M3P TM 350 4P4T	1/2
4	400 A	280-400 A	2000-4000 A	112009	Ex9M3P TM 400 4P4T	1/2
4	500 A	350-500 A	2500-5000 A	112010	Ex9M3P TM 500 4P4T	1/2

Moulded Case Circuit Breakers Ex9M AC TM

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_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	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
3	400 A	280-400 A	2000-4000 A	112011	Ex9M4S TM 400 3P	1/1
3	500 A	350-500 A	2500-5000 A	112012	Ex9M4S TM 500 3P	1/1
3	630 A	441-630 A	3150-6300 A	112013	Ex9M4S TM 630 3P	1/1
4	400 A	280-400 A	2000-4000 A	112014	Ex9M4S TM 400 4P4T	1/1
4	500 A	350-500 A	2500-5000 A	112015	Ex9M4S TM 500 4P4T	1/1
4	630 A	441-630 A	3150-6300 A	112016	Ex9M4S TM 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_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	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
3	400 A	280-400 A	2000-4000 A	112017	Ex9M4N TM 400 3P	1/1
3	500 A	350-500 A	2500-5000 A	112018	Ex9M4N TM 500 3P	1/1
3	630 A	441-630 A	3150-6300 A	112019	Ex9M4N TM 630 3P	1/1
4	400 A	280-400 A	2000-4000 A	112020	Ex9M4N TM 400 4P4T	1/1
4	500 A	350-500 A	2500-5000 A	112021	Ex9M4N TM 500 4P4T	1/1
4	630 A	441-630 A	3150-6300 A	112022	Ex9M4N TM 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_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	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
3	400 A	280-400 A	2000-4000 A	112023	Ex9M4Q TM 400 3P	1/1
3	500 A	350-500 A	2500-5000 A	112024	Ex9M4Q TM 500 3P	1/1
3	630 A	441-630 A	3150-6300 A	112025	Ex9M4Q TM 630 3P	1/1
4	400 A	280-400 A	2000-4000 A	112026	Ex9M4Q TM 400 4P4T	1/1
4	500 A	350-500 A	2500-5000 A	112027	Ex9M4Q TM 500 4P4T	1/1
4	630 A	441-630 A	3150-6300 A	112028	Ex9M4Q TM 630 4P4T	1/1

Moulded Case Circuit Breakers Ex9M AC TM

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_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	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
3	400 A	280-400 A	2000-4000 A	112029	Ex9M4H TM 400 3P	1/1
3	500 A	350-500 A	2500-5000 A	112030	Ex9M4H TM 500 3P	1/1
3	630 A	441-630 A	3150-6300 A	112031	Ex9M4H TM 630 3P	1/1
4	400 A	280-400 A	2000-4000 A	112032	Ex9M4H TM 400 4P4T	1/1
4	500 A	350-500 A	2500-5000 A	112033	Ex9M4H TM 500 4P4T	1/1
4	630 A	441-630 A	3150-6300 A	112034	Ex9M4H TM 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_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	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
3	400 A	280-400 A	2000-4000 A	112035	Ex9M4P TM 400 3P	1/1
3	500 A	350-500 A	2500-5000 A	112036	Ex9M4P TM 500 3P	1/1
3	630 A	441-630 A	3150-6300 A	112037	Ex9M4P TM 630 3P	1/1
4	400 A	280-400 A	2000-4000 A	112038	Ex9M4P TM 400 4P4T	1/1
4	500 A	350-500 A	2500-5000 A	112039	Ex9M4P TM 500 4P4T	1/1
4	630 A	441-630 A	3150-6300 A	112040	Ex9M4P TM 630 4P4T	1/1

Moulded Case Circuit Breakers Ex9M AC TM

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	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
3	630 A	441-630 A	3150-6300 A	112041	Ex9M5S TM 630 3P	1/1
3	700 A	490-700 A	3500-7000 A	112042	Ex9M5S TM 700 3P	1/1
3	800 A	560-800 A	4000-8000 A	112043	Ex9M5S TM 800 3P	1/1
4	630 A	441-630 A	3150-6300 A	112044	Ex9M5S TM 630 4P4T	1/1
4	700 A	490-700 A	3500-7000 A	112045	Ex9M5S TM 700 4P4T	1/1
4	800 A	560-800 A	4000-8000 A	112046	Ex9M5S TM 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_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	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
3	630 A	441-630 A	3150-6300 A	112047	Ex9M5N TM 630 3P	1/1
3	700 A	490-700 A	3500-7000 A	112048	Ex9M5N TM 700 3P	1/1
3	800 A	560-800 A	4000-8000 A	112049	Ex9M5N TM 800 3P	1/1
4	630 A	441-630 A	3150-6300 A	112050	Ex9M5N TM 630 4P4T	1/1
4	700 A	490-700 A	3500-7000 A	112051	Ex9M5N TM 700 4P4T	1/1
4	800 A	560-800 A	4000-8000 A	112052	Ex9M5N TM 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_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	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
3	630 A	441-630 A	3150-6300 A	112053	Ex9M5Q TM 630 3P	1/1
3	700 A	490-700 A	3500-7000 A	112054	Ex9M5Q TM 700 3P	1/1
3	800 A	560-800 A	4000-8000 A	112055	Ex9M5Q TM 800 3P	1/1
4	630 A	441-630 A	3150-6300 A	112056	Ex9M5Q TM 630 4P4T	1/1
4	700 A	490-700 A	3500-7000 A	112057	Ex9M5Q TM 700 4P4T	1/1
4	800 A	560-800 A	4000-8000 A	112058	Ex9M5Q TM 800 4P4T	1/1

Moulded Case Circuit Breakers Ex9M AC TM

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_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	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
3	630 A	441-630 A	3150-6300 A	112059	Ex9M5H TM 630 3P	1/1
3	700 A	490-700 A	3500-7000 A	112060	Ex9M5H TM 700 3P	1/1
3	800 A	560-800 A	4000-8000 A	112061	Ex9M5H TM 800 3P	1/1
4	630 A	441-630 A	3150-6300 A	112062	Ex9M5H TM 630 4P4T	1/1
4	700 A	490-700 A	3500-7000 A	112063	Ex9M5H TM 700 4P4T	1/1
4	800 A	560-800 A	4000-8000 A	112064	Ex9M5H TM 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_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	Overcurrent release I_r	instant. release I_i	Article No.	Type	Packing
3	630 A	441-630 A	3150-6300 A	112065	Ex9M5P TM 630 3P	1/1
3	700 A	490-700 A	3500-7000 A	112066	Ex9M5P TM 700 3P	1/1
3	800 A	560-800 A	4000-8000 A	112067	Ex9M5P TM 800 3P	1/1
4	630 A	441-630 A	3150-6300 A	112068	Ex9M5P TM 630 4P4T	1/1
4	700 A	490-700 A	3500-7000 A	112069	Ex9M5P TM 700 4P4T	1/1
4	800 A	560-800 A	4000-8000 A	112070	Ex9M5P TM 800 4P4T	1/1

Technical Data Ex9M1 AC TM

AC TM Moulded Case Circuit Breakers up to 160 A

General parameters

Suitable for commercial as well as industrial applications		
I_r (1.0) Not adjustable (1 Pole)		
I_r can be set in range (0.7 — 1.0) × I_n		
I_i (10) range not adjustable (1 Pole)		
I_i can be set in range (5 — 10) × I_n for 125 A and 160 A types (3 and 4 Pole) , otherwise is fixed at 10 × I_n		
I_{iN} fixed at 10 × I_n		
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

Technical Data Ex9M1 AC TM

AC TM 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

Technical Data Ex9M1 AC TM

AC TM Moulded Case Circuit Breakers up to 160 A

Mechanical parameters

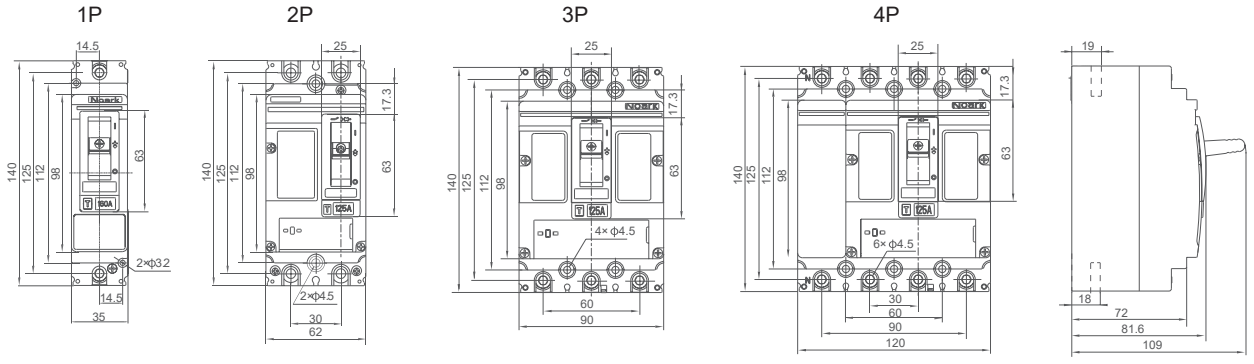
Device width 1P / 2P/ 3P / 4P	35 mm / 62 mm /90 mm / 120 mm
Device height	140 mm
Device depth	81.6 mm
Mounting	onto panel
Degree of protection	IP40, IP20 terminals
Terminals	box
Terminal capacity	4 — 95 mm^2
Fastening torque of terminals	8 Nm
Ambient temperature	-40 — +70 °C
Relative humidity	≤ 50 % 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

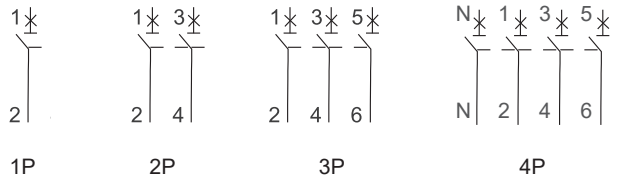
Altitude	**≤ 2 000 m**	**3 000 m**	**4 000 m**	**5 000 m**
Derrating op. current I_n coefficient	1	0.96	0.93	0.9
Maximum rated op. voltage U_e	690 V AC	550 V AC	480 V AC	420 V AC
Rated insulation voltage U_i	1000 V AC	930 V AC	870 V AC	800 V AC
Rated impulse withstand voltage U_{imp}	8 kV	8 kV	8 kV	8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

Dimensions

mm



Wiring diagram

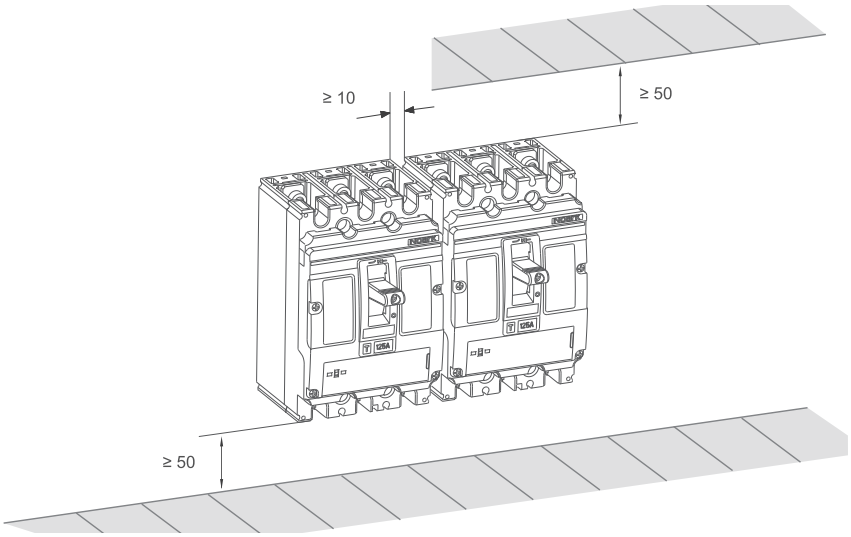


Technical Data Ex9M1 AC TM

AC TM Moulded Case Circuit Breakers up to 160 A

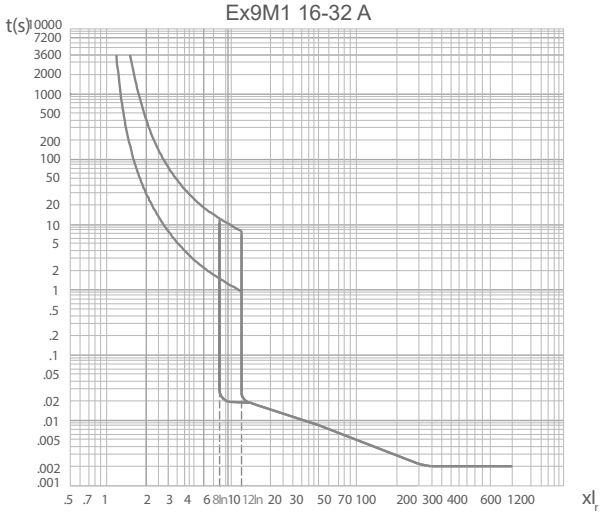
Installation space

mm

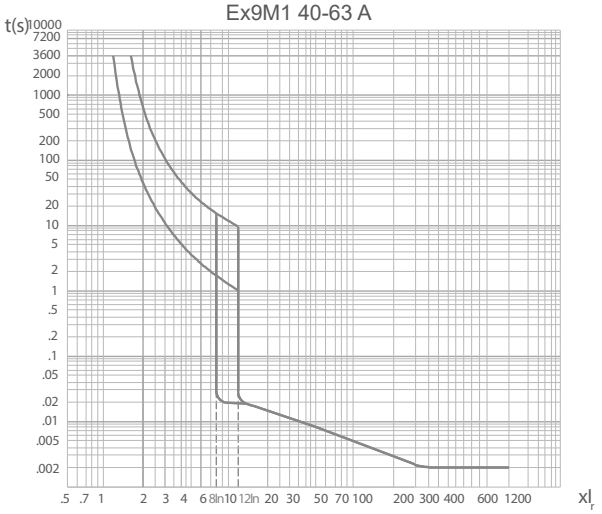


Tripping characteristics

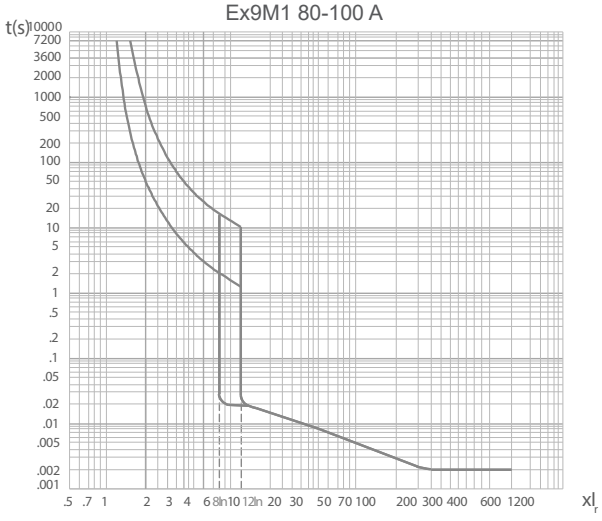
Ex9M1 16-32 A



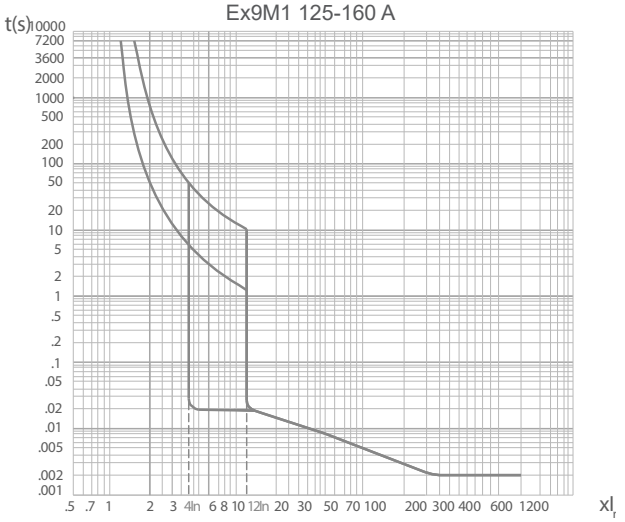
Ex9M1 40-63 A



Ex9M1 80-100 A



Ex9M1 125-160 A



Technical Data Ex9M2 AC TM

AC TM Moulded Case Circuit Breakers up to 250 A

General parameters

Suitable for commercial as well as industrial applications		
I_r (1.0) Not adjustable (1 Pole)		
I_r can be set in range (0.7 — 1.0) × I_n		
I_i can be set in range (7 — 12) × I_n for 125 A and (5 — 10) × I_n for other devices up to 250 A		
$I_{iN} = I_i$		
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

Technical Data Ex9M2 AC TM

AC TM 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

Technical Data Ex9M2 AC TM

AC TM Moulded Case Circuit Breakers up to 250 A

Mechanical parameters

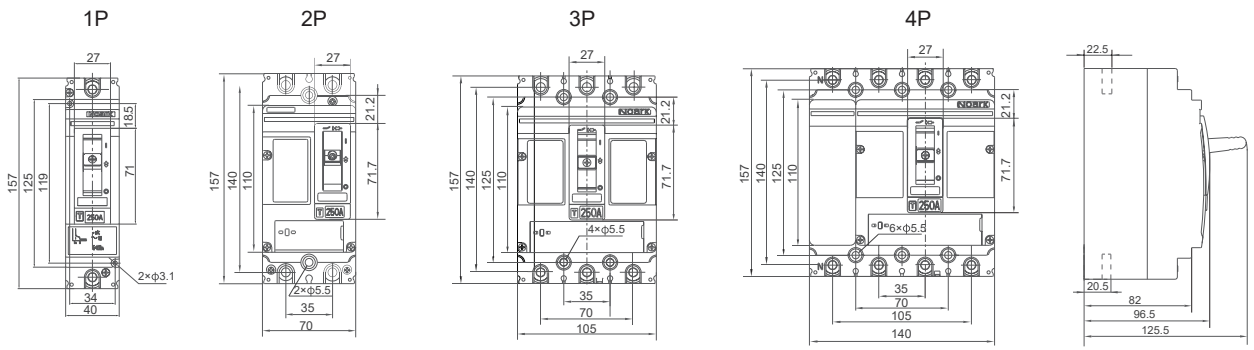
Device width 1P / 2P / 3P / 4P	40 mm / 70 mm / 105 mm / 140 mm
Device height	157 mm
Device depth	96.5 mm
Mounting	onto panel
Degree of protection	IP40, IP20 terminals
Terminals	box
Terminal capacity	10 — 120 mm^2
Fastening torque of terminals	25 Nm
Ambient temperature	-40 — +70 °C
Relative humidity	≤ 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

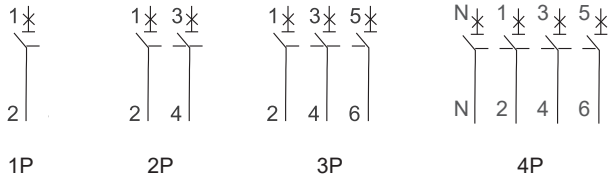
Altitude	**≤ 2 000 m**	**3 000 m**	**4 000 m**	**5 000 m**
Derrating op. current I_n coefficient	1	0.96	0.93	0.9
Maximum rated op. voltage U_e	690 V AC	550 V AC	480 V AC	420 V AC
Rated insulation voltage U_i	1000 V AC	930 V AC	870 V AC	800 V AC
Rated impulse withstand voltage U_{imp}	8 kV	8 kV	8 kV	8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

Dimensions

mm



Wiring diagram

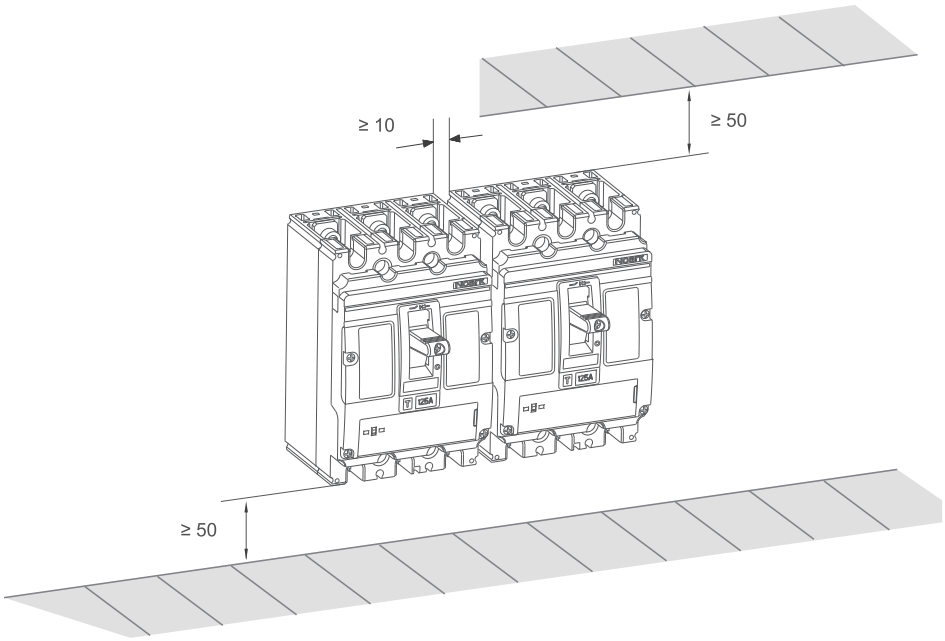


Technical Data Ex9M2 AC TM

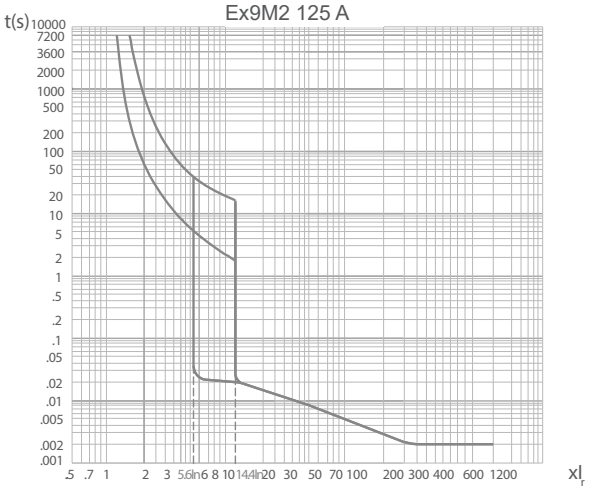
AC TM Moulded Case Circuit Breakers up to 250 A

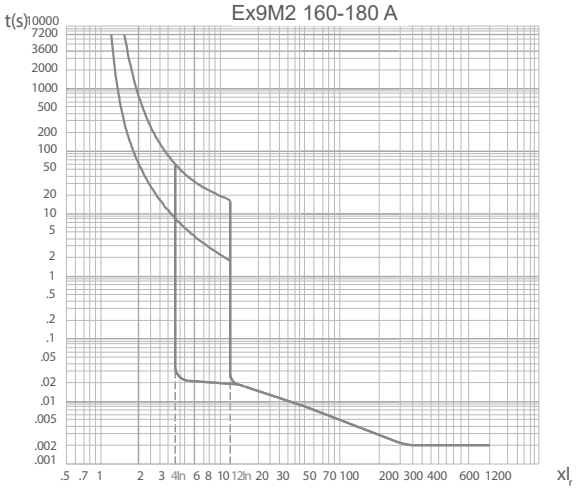
Installation space

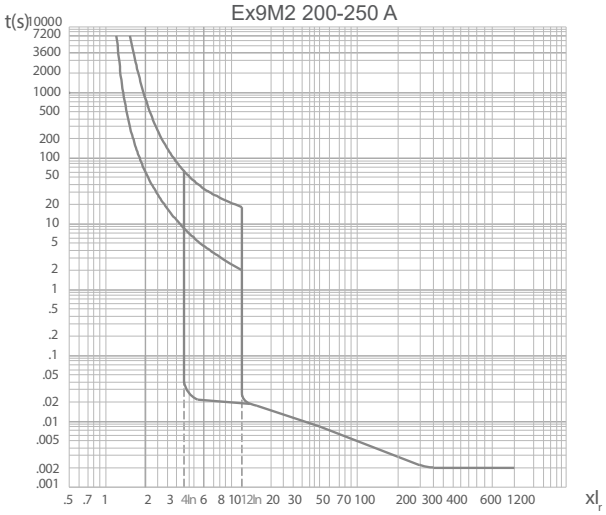
mm



Tripping characteristics







Technical Data Ex9M3 AC TM

AC TM Moulded Case Circuit Breakers up to 500 A

General parameters

Suitable for commercial as well as industrial applications		
I_r can be set in range (0.7 — 1.0) × I_n		
I_i can be set in range (5 — 10) × I_n		
$I_{iN} = I_i$		
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

Technical Data Ex9M3 AC TM

AC TM 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

Technical Data Ex9M3 AC TM

AC TM Moulded Case Circuit Breakers up to 500 A

Mechanical parameters

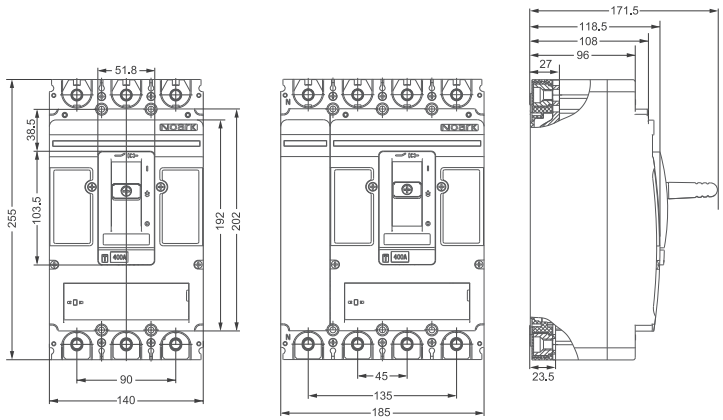
Device width 3P / 4P	140 mm / 185 mm
Device height	255 mm
Device depth	118.5 mm
Mounting	onto panel
Degree of protection	IP40, IP20 terminals
Terminals	M10 screws
Busbar thickness	≤ 8 mm
Busbar width	≤ 30 mm
Cable lug width	≤ 30 mm
Fastening torque of terminals	25 Nm
Ambient temperature	-40 — +70 °C
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

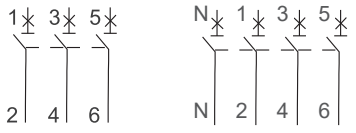
Dimensions

mm



3P 4P

Wiring diagram



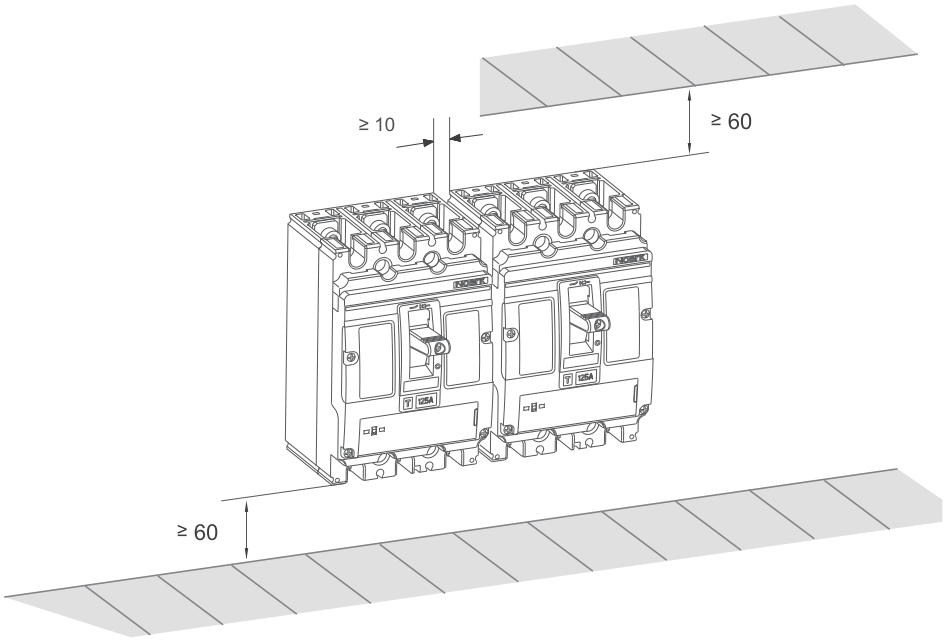
3P 4P

Technical Data Ex9M3 AC TM

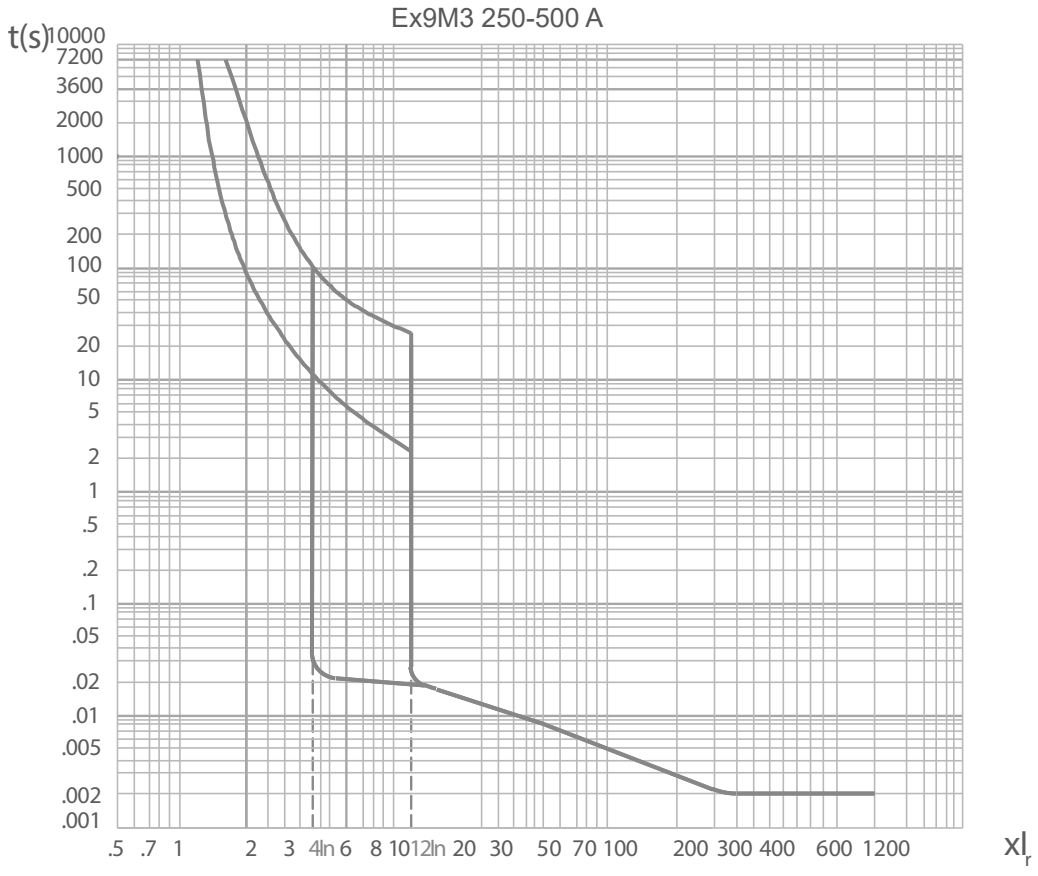
AC TM Moulded Case Circuit Breakers up to 500 A

Installation space

mm



Tripping characteristics



Technical Data Ex9M4 AC TM

AC TM Moulded Case Circuit Breakers up to 630 A

General parameters

Suitable for commercial as well as industrial applications		
I_r can be set in range (0.7 — 1.0) × I_n		
I_i can be set in range (5 — 10) × I_n		
$I_{iN} = I_i$		
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

Technical Data Ex9M4 AC TM

AC TM 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 TM

AC TM Moulded Case Circuit Breakers up to 630 A

Mechanical parameters

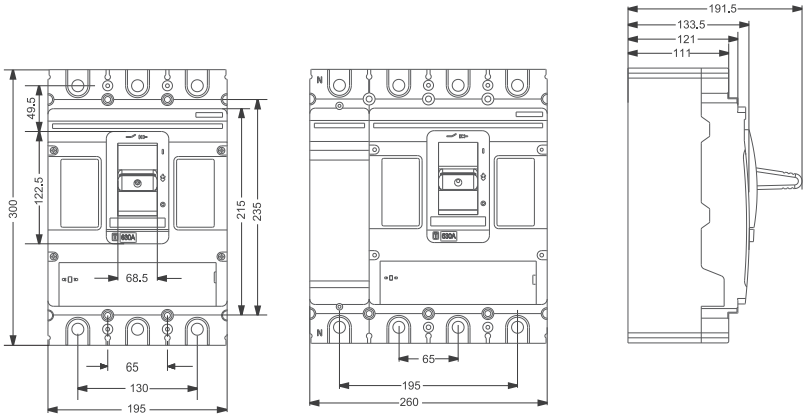
Device width 3P / 4P	195 mm / 260 mm
Device height	300 mm
Device depth	142 mm
Mounting	onto panel
Degree of protection	IP40, IP20 terminals
Terminals	M12 screws
Busbar thickness	≤ 10 mm
Busbar width	≤ 50 mm
Cable lug width	≤ 50 mm
Fastening torque of terminals	30 Nm
Ambient temperature	-40 — +70 °C
Relative 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

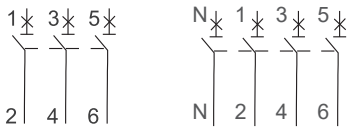
Dimensions

mm



3P 4P

Wiring diagram



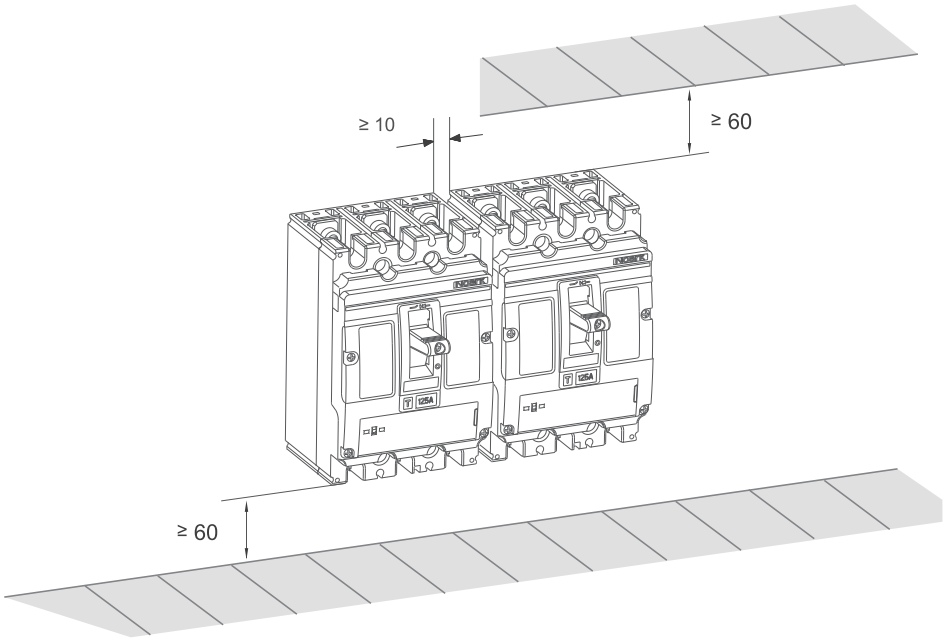
3P 4P

Technical Data Ex9M4 AC TM

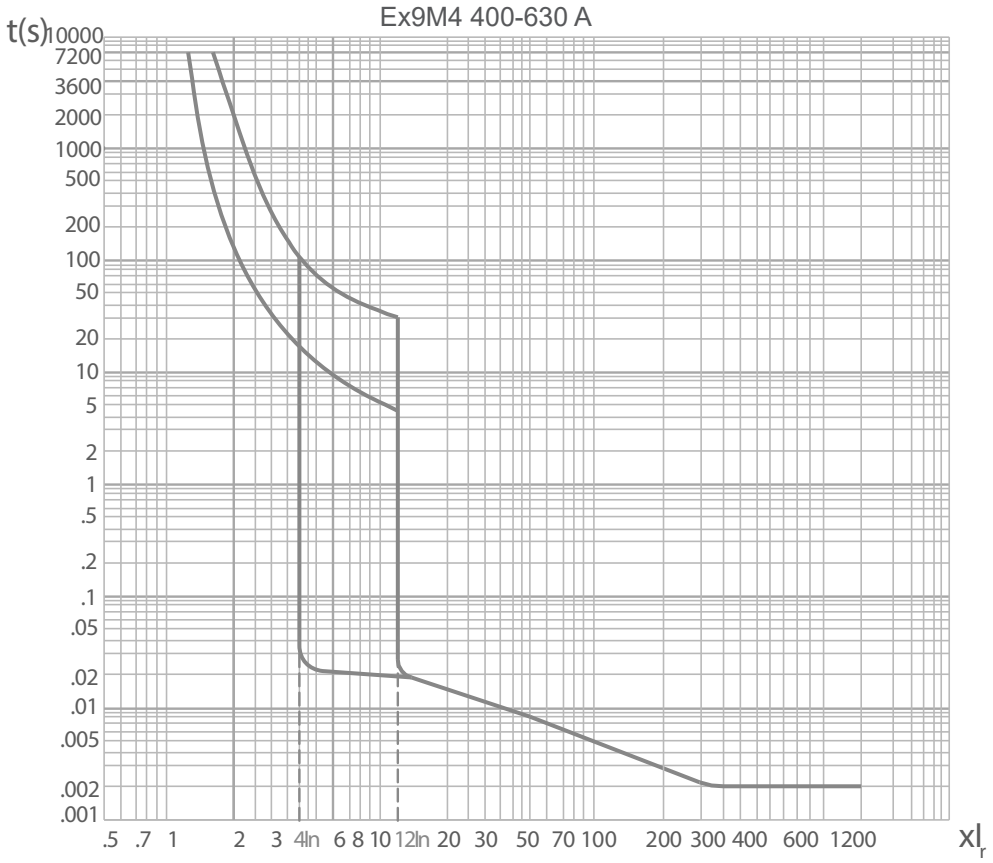
AC TM Moulded Case Circuit Breakers up to 630 A

Installation space

mm



Tripping characteristics



Technical Data Ex9M5 AC TM

AC TM Moulded Case Circuit Breakers up to 800 A

General parameters

Suitable for commercial as well as industrial applications		
I_r can be set in range (0.7 — 1.0) × I_n		
I_i can be set in range (5 — 10) × I_n		
$I_{iN} = I_i$		
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

Technical Data Ex9M5 AC TM

AC TM 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

Technical Data Ex9M5 AC TM

AC TM Moulded Case Circuit Breakers up to 800 A

Mechanical parameters

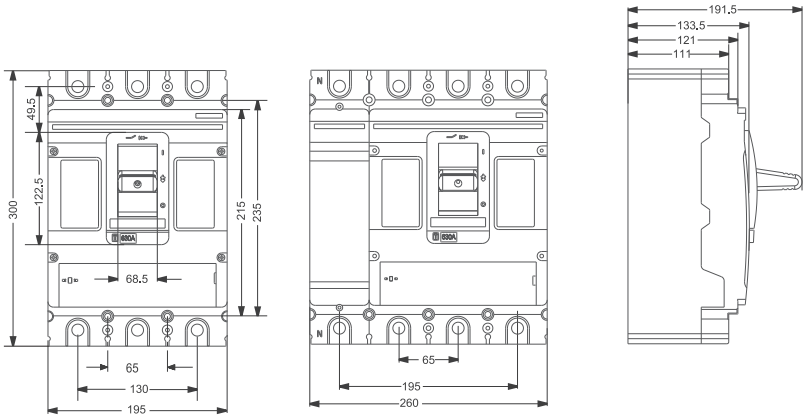
Device width 3P / 4P	195 mm / 260 mm
Device height	300 mm
Device depth	142 mm
Mounting	onto panel
Degree of protection	IP40, IP20 terminals
Terminals	M12 screws
Busbar thickness	≤ 10 mm
Busbar width	≤ 50 mm
Cable lug width	≤ 50 mm
Fastening torque of terminals	30 Nm
Ambient temperature	-40 — +70 °C
Relative 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

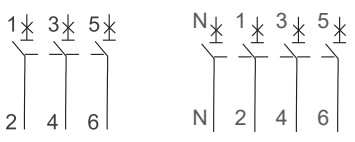
Dimensions

mm



3P 4P

Wiring diagram



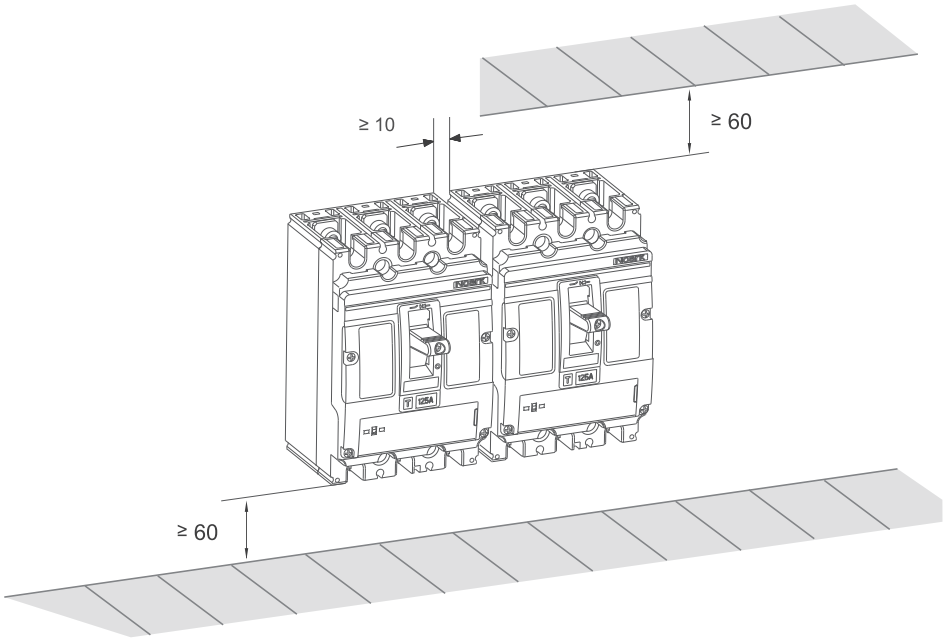
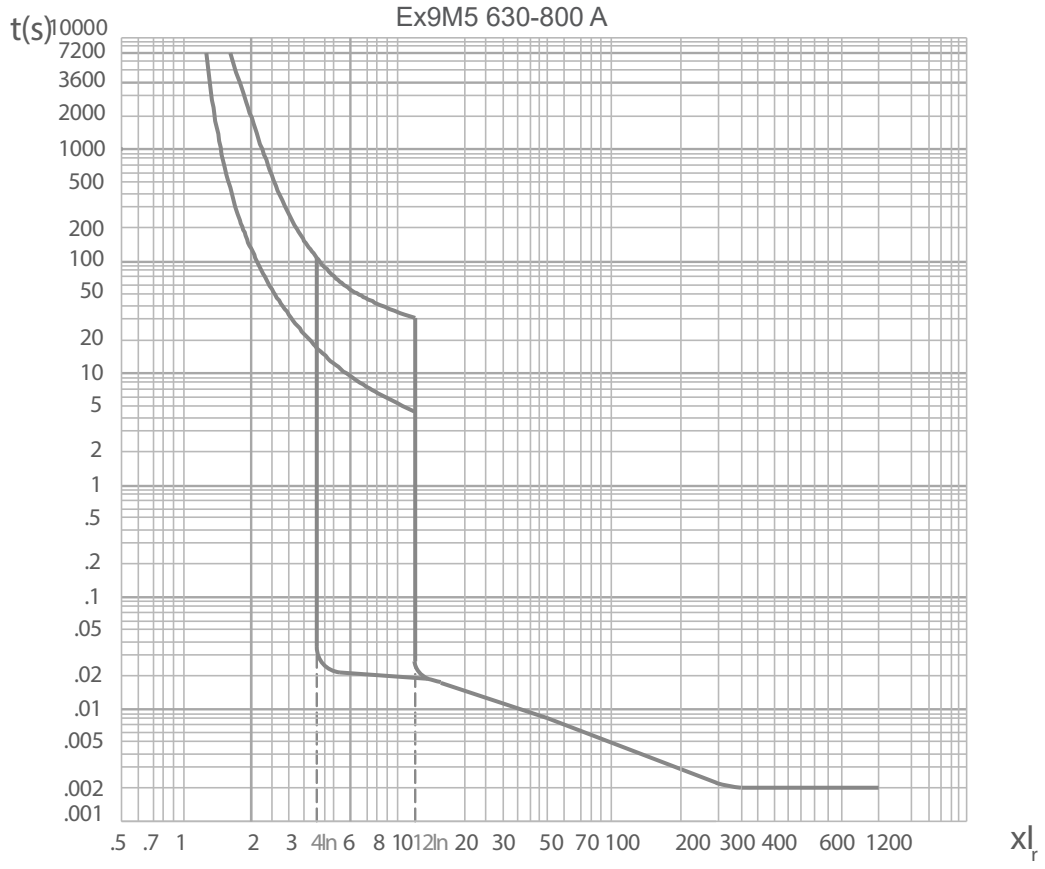
3P 4P

Technical Data Ex9M5 AC TM

AC TM Moulded Case Circuit Breakers up to 800 A

Installation space

mm



Tripping characteristics