

DC MCCBs Ex9MD



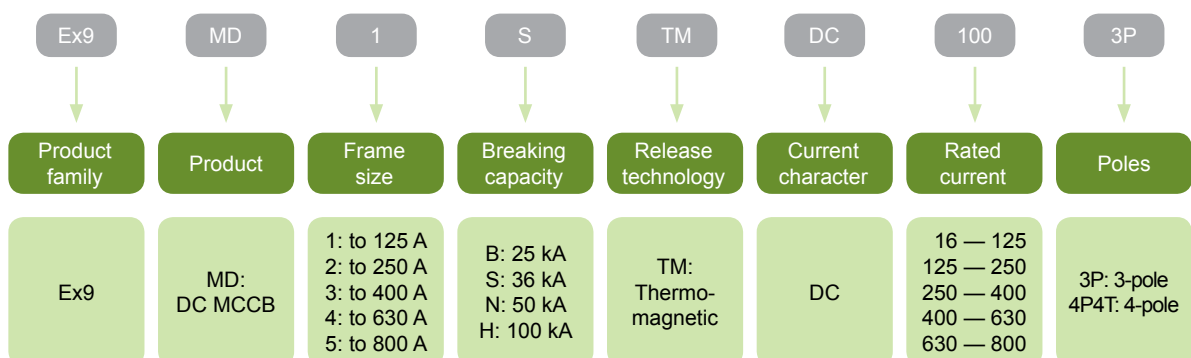
- DC Moulded Case Circuit Breakers
- Frame sizes M1 - M5
- Rated current up to 800 A
- Rated ultimate short circuit breaking capacity I_{cu} up to 100 kA, $I_{cs} = 100\% I_{cu}$
- Rated voltage 750 V DC (3-pole) and 1000 V DC (4-pole)
- Thermomagnetic releases
- Fixed version

DC Moulded Case Circuit Breakers Ex9MD TM are intended mainly for photovoltaic applications. Testing according to IEC / EN 60947-2 standards ensures functions and reliability for wide variety of applications including isolation.

These breakers are offered with breaking capacities from 25 kA up to 100 kA. Rated impulse withstand voltage U_{imp} 8 kV makes it possible to use them even in system with occurrences of transient overvoltage waves of high intensity.

Utilization category A.

Type Key

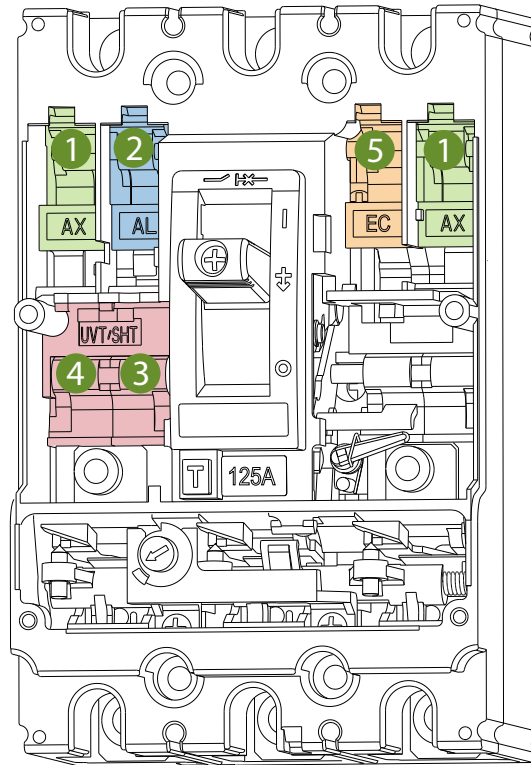


Certification marks



DC MCCBs Ex9MD

Internal accessories



1

Auxiliary contact
AX21

2

Signal contact
AL21

3

Shunt trip release
SHT2i
1 unit or UVT2i

4

Undervoltage release
UVT2i
1 unit or SHT2i

5

Early-make
auxiliary contact
EC 2i

Auxiliary contact AX21

Signal contact AL21

Shunt trip releases SHT2i

Undervoltage releases UVT2i

Early-make auxiliary contact EC 2i

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

The undervoltage release UVT in PV system is intended e.g. for safe remote disconnection of DC part from installation.

DC MCCBs Ex9MD

External accessories



Phase barriers
PB2i



Terminal cover, short
TCV2i



Terminal cover, long
TCE2i



Box terminals
MC2i



Tunnel terminals
MC2i W



Mounting depth spacers
WG i



Remote operator
MOD2i



Direct rotary handle
RHD2i



Extended rotary handle
ERH2i

Phase barriers PB2i

Terminal cover, short TCV2i

Terminal cover, long TCE2i

Remote operators MOD2i

Direct rotary handles RHD2i

Extended rotary handles ERH2i

Connection terminals MC2i

Mounting depth spacers WG i

DC MCCBs Ex9MD1 up to 125 A

Version Ex9MD1B, $I_{cu} = 25$ kA

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 25$ kA at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_r fixed as $10 \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
16 A	12.8—16 A	160 A	101768	Ex9MD1B TM DC16 3P	1/8
20 A	16—20 A	200 A	101769	Ex9MD1B TM DC20 3P	1/8
25 A	20—25 A	250 A	101770	Ex9MD1B TM DC25 3P	1/8
32 A	25.6—32 A	320 A	101771	Ex9MD1B TM DC32 3P	1/8
40 A	32—40 A	400 A	101772	Ex9MD1B TM DC40 3P	1/8
50 A	40—50 A	500 A	101773	Ex9MD1B TM DC50 3P	1/8
63 A	50.4—63 A	630 A	101774	Ex9MD1B TM DC63 3P	1/8
80 A	64—80 A	800 A	101775	Ex9MD1B TM DC80 3P	1/8
100 A	80—100 A	1000 A	101776	Ex9MD1B TM DC100 3P	1/8
125 A	100—125 A	1250 A	101777	Ex9MD1B TM DC125 3P	1/8
16 A	12.8—16 A	160 A	101828	Ex9MD1B TM DC16 4P4T	1/8
20 A	16—20 A	200 A	101829	Ex9MD1B TM DC20 4P4T	1/8
25 A	20—25 A	250 A	101830	Ex9MD1B TM DC25 4P4T	1/8
32 A	25.6—32 A	320 A	101831	Ex9MD1B TM DC32 4P4T	1/8
40 A	32—40 A	400 A	101832	Ex9MD1B TM DC40 4P4T	1/8
50 A	40—50 A	500 A	101833	Ex9MD1B TM DC50 4P4T	1/8
63 A	50.4—63 A	630 A	101834	Ex9MD1B TM DC63 4P4T	1/8
80 A	64—80 A	800 A	101835	Ex9MD1B TM DC80 4P4T	1/8
100 A	80—100 A	1000 A	101836	Ex9MD1B TM DC100 4P4T	1/8
125 A	100—125 A	1250 A	101837	Ex9MD1B TM DC125 4P4T	1/8

Version Ex9MD1S, $I_{cu} = 36$ kA

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 36$ kA at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_r fixed as $10 \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
16 A	12.8—16 A	160 A	101778	Ex9MD1S TM DC16 3P	1/8
20 A	16—20 A	200 A	101779	Ex9MD1S TM DC20 3P	1/8
25 A	20—25 A	250 A	101780	Ex9MD1S TM DC25 3P	1/8
32 A	25.6—32 A	320 A	101781	Ex9MD1S TM DC32 3P	1/8
40 A	32—40 A	400 A	101782	Ex9MD1S TM DC40 3P	1/8
50 A	40—50 A	500 A	101783	Ex9MD1S TM DC50 3P	1/8
63 A	50.4—63 A	630 A	101784	Ex9MD1S TM DC63 3P	1/8
80 A	64—80 A	800 A	101785	Ex9MD1S TM DC80 3P	1/8
100 A	80—100 A	1000 A	101786	Ex9MD1S TM DC100 3P	1/8
125 A	100—125 A	1250 A	101787	Ex9MD1S TM DC125 3P	1/8
16 A	12.8—16 A	160 A	101838	Ex9MD1S TM DC16 4P4T	1/8
20 A	16—20 A	200 A	101839	Ex9MD1S TM DC20 4P4T	1/8
25 A	20—25 A	250 A	101840	Ex9MD1S TM DC25 4P4T	1/8
32 A	25.6—32 A	320 A	101841	Ex9MD1S TM DC32 4P4T	1/8
40 A	32—40 A	400 A	101842	Ex9MD1S TM DC40 4P4T	1/8
50 A	40—50 A	500 A	101843	Ex9MD1S TM DC50 4P4T	1/8
63 A	50.4—63 A	630 A	101844	Ex9MD1S TM DC63 4P4T	1/8
80 A	64—80 A	800 A	101845	Ex9MD1S TM DC80 4P4T	1/8
100 A	80—100 A	1000 A	101846	Ex9MD1S TM DC100 4P4T	1/8
125 A	100—125 A	1250 A	101847	Ex9MD1S TM DC125 4P4T	1/8

DC MCCBs Ex9MD1 up to 125 A

Version Ex9MD1N, $I_{cu} = 50 \text{ kA}$

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 50 \text{ kA}$ at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_f fixed as $10 \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_f	Article No.	Type	Packing
16 A	12.8—16 A	160 A	101788	Ex9MD1N TM DC16 3P	1/8
20 A	16—20 A	200 A	101789	Ex9MD1N TM DC20 3P	1/8
25 A	20—25 A	250 A	101790	Ex9MD1N TM DC25 3P	1/8
32 A	25.6—32 A	320 A	101791	Ex9MD1N TM DC32 3P	1/8
40 A	32—40 A	400 A	101792	Ex9MD1N TM DC40 3P	1/8
50 A	40—50 A	500 A	101793	Ex9MD1N TM DC50 3P	1/8
63 A	50.4—63 A	630 A	101794	Ex9MD1N TM DC63 3P	1/8
80 A	64—80 A	800 A	101795	Ex9MD1N TM DC80 3P	1/8
100 A	80—100 A	1000 A	101796	Ex9MD1N TM DC100 3P	1/8
125 A	100—125 A	1250 A	101797	Ex9MD1N TM DC125 3P	1/8
16 A	12.8—16 A	160 A	101848	Ex9MD1N TM DC16 4P4T	1/8
20 A	16—20 A	200 A	101849	Ex9MD1N TM DC20 4P4T	1/8
25 A	20—25 A	250 A	101850	Ex9MD1N TM DC25 4P4T	1/8
32 A	25.6—32 A	320 A	101851	Ex9MD1N TM DC32 4P4T	1/8
40 A	32—40 A	400 A	101852	Ex9MD1N TM DC40 4P4T	1/8
50 A	40—50 A	500 A	101853	Ex9MD1N TM DC50 4P4T	1/8
63 A	50.4—63 A	630 A	101854	Ex9MD1N TM DC63 4P4T	1/8
80 A	64—80 A	800 A	101855	Ex9MD1N TM DC80 4P4T	1/8
100 A	80—100 A	1000 A	101856	Ex9MD1N TM DC100 4P4T	1/8
125 A	100—125 A	1250 A	101857	Ex9MD1N TM DC125 4P4T	1/8

Version Ex9MD1H, $I_{cu} = 100 \text{ kA}$

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 100 \text{ kA}$ at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_f fixed as $10 \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_f	Article No.	Type	Packing
16 A	12.8—16 A	160 A	101818	Ex9MD1H TM DC16 3P	1/8
20 A	16—20 A	200 A	101819	Ex9MD1H TM DC20 3P	1/8
25 A	20—25 A	250 A	101820	Ex9MD1H TM DC25 3P	1/8
32 A	25.6—32 A	320 A	101821	Ex9MD1H TM DC32 3P	1/8
40 A	32—40 A	400 A	101822	Ex9MD1H TM DC40 3P	1/8
50 A	40—50 A	500 A	101823	Ex9MD1H TM DC50 3P	1/8
63 A	50.4—63 A	630 A	101824	Ex9MD1H TM DC63 3P	1/8
80 A	64—80 A	800 A	101825	Ex9MD1H TM DC80 3P	1/8
100 A	80—100 A	1000 A	101826	Ex9MD1H TM DC100 3P	1/8
125 A	100—125 A	1250 A	101827	Ex9MD1H TM DC125 3P	1/8
16 A	12.8—16 A	160 A	101878	Ex9MD1H TM DC16 4P4T	1/8
20 A	16—20 A	200 A	101879	Ex9MD1H TM DC20 4P4T	1/8
25 A	20—25 A	250 A	101880	Ex9MD1H TM DC25 4P4T	1/8
32 A	25.6—32 A	320 A	101881	Ex9MD1H TM DC32 4P4T	1/8
40 A	32—40 A	400 A	101882	Ex9MD1H TM DC40 4P4T	1/8
50 A	40—50 A	500 A	101883	Ex9MD1H TM DC50 4P4T	1/8
63 A	50.4—63 A	630 A	101884	Ex9MD1H TM DC63 4P4T	1/8
80 A	64—80 A	800 A	101885	Ex9MD1H TM DC80 4P4T	1/8
100 A	80—100 A	1000 A	101886	Ex9MD1H TM DC100 4P4T	1/8
125 A	100—125 A	1250 A	101887	Ex9MD1H TM DC125 4P4T	1/8

DC MCCBs Ex9MD2 up to 250 A

Version Ex9MD2B, $I_{cu} = 25 \text{ kA}$

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 25 \text{ kA}$ at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_r variable $(5-6-7-8-9-10) \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
125 A	100-125 A	625-1250	101888	Ex9MD2B TM DC125 3P	1/4
160 A	128-160 A	800-1600	101889	Ex9MD2B TM DC160 3P	1/4
180 A	144-180 A	900-1800	101890	Ex9MD2B TM DC180 3P	1/4
200 A	160-200 A	1000-2000	101891	Ex9MD2B TM DC200 3P	1/4
225 A	180-225 A	1125-2250	101892	Ex9MD2B TM DC225 3P	1/4
250 A	200-250 A	1250-2500	101893	Ex9MD2B TM DC250 3P	1/4
125 A	100-125 A	625-1250	101924	Ex9MD2B TM DC125 4P4T	1/4
160 A	128-160 A	800-1600	101925	Ex9MD2B TM DC160 4P4T	1/4
180 A	144-180 A	900-1800	101926	Ex9MD2B TM DC180 4P4T	1/4
200 A	160-200 A	1000-2000	101927	Ex9MD2B TM DC200 4P4T	1/4
225 A	180-225 A	1125-2250	101928	Ex9MD2B TM DC225 4P4T	1/4
250 A	200-250 A	1250-2500	101929	Ex9MD2B TM DC250 4P4T	1/4

Version Ex9MD2S, $I_{cu} = 36 \text{ kA}$

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 36 \text{ kA}$ at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_r variable $(5-6-7-8-9-10) \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
125 A	100-125 A	625-1250	101894	Ex9MD2S TM DC125 3P	1/4
160 A	128-160 A	800-1600	101895	Ex9MD2S TM DC160 3P	1/4
180 A	144-180 A	900-1800	101896	Ex9MD2S TM DC180 3P	1/4
200 A	160-200 A	1000-2000	101897	Ex9MD2S TM DC200 3P	1/4
225 A	180-225 A	1125-2250	101898	Ex9MD2S TM DC225 3P	1/4
250 A	200-250 A	1250-2500	101899	Ex9MD2S TM DC250 3P	1/4
125 A	100-125 A	625-1250	101930	Ex9MD2S TM DC125 4P4T	1/4
160 A	128-160 A	800-1600	101931	Ex9MD2S TM DC160 4P4T	1/4
180 A	144-180 A	900-1800	101932	Ex9MD2S TM DC180 4P4T	1/4
200 A	160-200 A	1000-2000	101933	Ex9MD2S TM DC200 4P4T	1/4
225 A	180-225 A	1125-2250	101934	Ex9MD2S TM DC225 4P4T	1/4
250 A	200-250 A	1250-2500	101935	Ex9MD2S TM DC250 4P4T	1/4

DC MCCBs Ex9MD2 up to 250 A

Version Ex9MD2N, $I_{cu} = 50 \text{ kA}$

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 50 \text{ kA}$ at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_i variable $(5-6-7-8-9-10) \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
125 A	100-125 A	625-1250	101900	Ex9MD2N TM DC125 3P	1/4
160 A	128-160 A	800-1600	101901	Ex9MD2N TM DC160 3P	1/4
180 A	144-180 A	900-1800	101902	Ex9MD2N TM DC180 3P	1/4
200 A	160-200 A	1000-2000	101903	Ex9MD2N TM DC200 3P	1/4
225 A	180-225 A	1125-2250	101904	Ex9MD2N TM DC225 3P	1/4
250 A	200-250 A	1250-2500	101905	Ex9MD2N TM DC250 3P	1/4
125 A	100-125 A	625-1250	101936	Ex9MD2N TM DC125 4P4T	1/4
160 A	128-160 A	800-1600	101937	Ex9MD2N TM DC160 4P4T	1/4
180 A	144-180 A	900-1800	101938	Ex9MD2N TM DC180 4P4T	1/4
200 A	160-200 A	1000-2000	101939	Ex9MD2N TM DC200 4P4T	1/4
225 A	180-225 A	1125-2250	101940	Ex9MD2N TM DC225 4P4T	1/4
250 A	200-250 A	1250-2500	101941	Ex9MD2N TM DC250 4P4T	1/4

Version Ex9MD2H, $I_{cu} = 100 \text{ kA}$

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 100 \text{ kA}$ at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_i variable $(5-6-7-8-9-10) \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
125 A	100-125 A	625-1250	101918	Ex9MD2H TM DC125 3P	1/4
160 A	128-160 A	800-1600	101919	Ex9MD2H TM DC160 3P	1/4
180 A	144-180 A	900-1800	101920	Ex9MD2H TM DC180 3P	1/4
200 A	160-200 A	1000-2000	101921	Ex9MD2H TM DC200 3P	1/4
225 A	180-225 A	1125-2250	101922	Ex9MD2H TM DC225 3P	1/4
250 A	200-250 A	1250-2500	101923	Ex9MD2H TM DC250 3P	1/4
125 A	100-125 A	625-1250	101954	Ex9MD2H TM DC125 4P4T	1/4
160 A	128-160 A	800-1600	101955	Ex9MD2H TM DC160 4P4T	1/4
180 A	144-180 A	900-1800	101956	Ex9MD2H TM DC180 4P4T	1/4
200 A	160-200 A	1000-2000	101957	Ex9MD2H TM DC200 4P4T	1/4
225 A	180-225 A	1125-2250	101958	Ex9MD2H TM DC225 4P4T	1/4
250 A	200-250 A	1250-2500	101959	Ex9MD2H TM DC250 4P4T	1/4

DC MCCBs Ex9MD3 up to 400 A

Version Ex9MD3B, $I_{cu} = 25$ kA

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 25$ kA at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_r variable $(5-6-7-8-9-10) \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
250 A	200-250 A	1250-2500	101960	Ex9MD3B TM DC250 3P	1/2
315 A	252-315 A	1575-3150	101961	Ex9MD3B TM DC315 3P	1/2
350 A	280-350 A	1750-3500	101962	Ex9MD3B TM DC350 3P	1/2
400 A	320-400 A	2000-4000	101963	Ex9MD3B TM DC400 3P	1/2
250 A	200-250 A	1250-2500	101984	Ex9MD3B TM DC250 4P4T	1/2
315 A	252-315 A	1575-3150	101985	Ex9MD3B TM DC315 4P4T	1/2
350 A	280-350 A	1750-3500	101986	Ex9MD3B TM DC350 4P4T	1/2
400 A	320-400 A	2000-4000	101987	Ex9MD3B TM DC400 4P4T	1/2

Version Ex9MD3S, $I_{cu} = 36$ kA

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 36$ kA at 750/1000 V AC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_r variable $(5-6-7-8-9-10) \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
250 A	200-250 A	1250-2500	101964	Ex9MD3S TM DC250 3P	1/2
315 A	252-315 A	1575-3150	101965	Ex9MD3S TM DC315 3P	1/2
350 A	280-350 A	1750-3500	101966	Ex9MD3S TM DC350 3P	1/2
400 A	320-400 A	2000-4000	101967	Ex9MD3S TM DC400 3P	1/2
250 A	200-250 A	1250-2500	101988	Ex9MD3S TM DC250 4P4T	1/2
315 A	252-315 A	1575-3150	101989	Ex9MD3S TM DC315 4P4T	1/2
350 A	280-350 A	1750-3500	101990	Ex9MD3S TM DC350 4P4T	1/2
400 A	320-400 A	2000-4000	101991	Ex9MD3S TM DC400 4P4T	1/2

DC MCCBs Ex9MD3 up to 400 A

Version Ex9MD3N, $I_{cu} = 50 \text{ kA}$

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 50 \text{ kA}$ at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_i variable $(5-6-7-8-9-10) \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
250 A	200-250 A	1250-2500	101968	Ex9MD3N TM DC250 3P	1/2
315 A	252-315 A	1575-3150	101969	Ex9MD3N TM DC315 3P	1/2
350 A	280-350 A	1750-3500	101970	Ex9MD3N TM DC350 3P	1/2
400 A	320-400 A	2000-4000	101971	Ex9MD3N TM DC400 3P	1/2
250 A	200-250 A	1250-2500	101992	Ex9MD3N TM DC250 4P4T	1/2
315 A	252-315 A	1575-3150	101993	Ex9MD3N TM DC315 4P4T	1/2
350 A	280-350 A	1750-3500	101994	Ex9MD3N TM DC350 4P4T	1/2
400 A	320-400 A	2000-4000	101995	Ex9MD3N TM DC400 4P4T	1/2

Version Ex9MD3H, $I_{cu} = 100 \text{ kA}$

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 100 \text{ kA}$ at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_i variable $(5-6-7-8-9-10) \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
250 A	200-250 A	1250-2500	101980	Ex9MD3H TM DC250 3P	1/2
315 A	252-315 A	1575-3150	101981	Ex9MD3H TM DC315 3P	1/2
350 A	280-350 A	1750-3500	101982	Ex9MD3H TM DC350 3P	1/2
400 A	320-400 A	2000-4000	101983	Ex9MD3H TM DC400 3P	1/2
250 A	200-250 A	1250-2500	101204	Ex9MD3H TM DC250 4P4T	1/2
315 A	252-315 A	1575-3150	101205	Ex9MD3H TM DC315 4P4T	1/2
350 A	280-350 A	1750-3500	101206	Ex9MD3H TM DC350 4P4T	1/2
400 A	320-400 A	2000-4000	101207	Ex9MD3H TM DC400 4P4T	1/2

DC MCCBs Ex9MD4 up to 630 A

Version Ex9MD4B, $I_{cu} = 25 \text{ kA}$

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 25 \text{ kA}$ at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_i variable $(5-6-7-8-9-10) \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
400 A	320-400 A	2000-4000	103932	Ex9MD4B TM DC400 3P	1/2
500 A	400-500 A	2500-5000	103933	Ex9MD4B TM DC500 3P	1/2
630 A	504-630 A	3150-6300	103934	Ex9MD4B TM DC630 3P	1/2
400 A	320-400 A	2000-4000	103950	Ex9MD4B TM DC400 4P4T	1/2
500 A	400-500 A	2500-5000	103951	Ex9MD4B TM DC500 4P4T	1/2
630 A	504-630 A	3150-6300	103952	Ex9MD4B TM DC630 4P4T	1/2

Version Ex9MD4S, $I_{cu} = 36 \text{ kA}$

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 36 \text{ kA}$ at 750/1000 V AC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_i variable $(5-6-7-8-9-10) \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
400 A	320-400 A	2000-4000	103935	Ex9MD4S TM DC400 3P	1/2
500 A	400-500 A	2500-5000	103936	Ex9MD4S TM DC500 3P	1/2
630 A	504-630 A	3150-6300	103937	Ex9MD4S TM DC630 3P	1/2
400 A	320-400 A	2000-4000	103953	Ex9MD4S TM DC400 4P4T	1/2
500 A	400-500 A	2500-5000	103954	Ex9MD4S TM DC500 4P4T	1/2
630 A	504-630 A	3150-6300	103955	Ex9MD4S TM DC630 4P4T	1/2

DC MCCBs Ex9MD4 up to 630 A

Version Ex9MD4N, $I_{cu} = 50 \text{ kA}$

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 50 \text{ kA}$ at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_i variable $(5-6-7-8-9-10) \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
400 A	320-400 A	2000-4000	103938	Ex9MD4N TM DC400 3P	1/2
500 A	400-500 A	2500-5000	103939	Ex9MD4N TM DC500 3P	1/2
630 A	504-630 A	3150-6300	103940	Ex9MD4N TM DC630 3P	1/2
400 A	320-400 A	2000-4000	103956	Ex9MD4N TM DC400 4P4T	1/2
500 A	400-500 A	2500-5000	103957	Ex9MD4N TM DC500 4P4T	1/2
630 A	504-630 A	3150-6300	103958	Ex9MD4N TM DC630 4P4T	1/2

Version Ex9MD4H, $I_{cu} = 100 \text{ kA}$

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 100 \text{ kA}$ at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_i variable $(5-6-7-8-9-10) \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
400 A	320-400 A	2000-4000	103947	Ex9MD4H TM DC400 3P	1/2
500 A	400-500 A	2500-5000	103948	Ex9MD4H TM DC500 3P	1/2
630 A	504-630 A	3150-6300	103949	Ex9MD4H TM DC630 3P	1/2
400 A	320-400 A	2000-4000	103965	Ex9MD4H TM DC400 4P4T	1/2
500 A	400-500 A	2500-5000	103966	Ex9MD4H TM DC500 4P4T	1/2
630 A	504-630 A	3150-6300	103967	Ex9MD4H TM DC630 4P4T	1/2

DC MCCBs Ex9MD5 up to 800 A

Version Ex9MD5B, $I_{cu} = 25$ kA

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 25$ kA at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_i variable $(5-6-7-8-9-10) \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
630 A	504-630 A	3150-6300	103968	Ex9MD5B TM DC630 3P	1/2
700 A	560-700 A	3500-7000	103969	Ex9MD5B TM DC700 3P	1/2
800 A	640-800 A	4000-8000	103970	Ex9MD5B TM DC800 3P	1/2
630 A	504-630 A	3150-6300	103986	Ex9MD5B TM DC630 4P4T	1/2
700 A	560-700 A	3500-7000	103987	Ex9MD5B TM DC700 4P4T	1/2
800 A	640-800 A	4000-8000	103988	Ex9MD5B TM DC800 4P4T	1/2

Version Ex9MD5S, $I_{cu} = 36$ kA

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 36$ kA at 750/1000 V AC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_i variable $(5-6-7-8-9-10) \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
630 A	504-630 A	3150-6300	103971	Ex9MD5S TM DC630 3P	1/2
700 A	560-700 A	3500-7000	103972	Ex9MD5S TM DC700 3P	1/2
800 A	640-800 A	4000-8000	103973	Ex9MD5S TM DC800 3P	1/2
630 A	504-630 A	3150-6300	103989	Ex9MD5S TM DC630 4P4T	1/2
700 A	560-700 A	3500-7000	103990	Ex9MD5S TM DC700 4P4T	1/2
800 A	640-800 A	4000-8000	103991	Ex9MD5S TM DC800 4P4T	1/2

DC MCCBs Ex9MD5 up to 800 A

Version Ex9MD5N, $I_{cu} = 50$ kA

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 50$ kA at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_i variable $(5-6-7-8-9-10) \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
630 A	504-630 A	3150-6300	103974	Ex9MD5N TM DC630 3P	1/2
700 A	560-700 A	3500-7000	103975	Ex9MD5N TM DC700 3P	1/2
800 A	640-800 A	4000-8000	103976	Ex9MD5N TM DC800 3P	1/2
630 A	504-630 A	3150-6300	103992	Ex9MD5N TM DC630 4P4T	1/2
700 A	560-700 A	3500-7000	103993	Ex9MD5N TM DC700 4P4T	1/2
800 A	640-800 A	4000-8000	103994	Ex9MD5N TM DC800 4P4T	1/2

Version Ex9MD5H, $I_{cu} = 100$ kA

- DC Moulded Case Circuit Breakers
- 3 and 4-pole versions
- $I_{cs} = I_{cu} = 100$ kA at 750/1000 V DC
- I_r can be set in steps $(0.8-0.9-1.0) \times I_n$
- I_i variable $(5-6-7-8-9-10) \times I_n$
- Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery



Rated current I_n	Overcurrent release I_r	Instant. release I_i	Article No.	Type	Packing
630 A	504-630 A	3150-6300	103983	Ex9MD5H TM DC630 3P	1/2
700 A	560-700 A	3500-7000	103984	Ex9MD5H TM DC700 3P	1/2
800 A	640-800 A	4000-8000	103985	Ex9MD5H TM DC800 3P	1/2
630 A	504-630 A	3150-6300	104001	Ex9MD5H TM DC630 4P4T	1/2
700 A	560-700 A	3500-7000	104002	Ex9MD5H TM DC700 4P4T	1/2
800 A	640-800 A	4000-8000	104003	Ex9MD5H TM DC800 4P4T	1/2

Technical Data Ex9MD1

DC Moulded Case Circuit Breakers up to 125 A

General parameters

Suitable for PV and similar applications

Thermal release adjustable $(0.8-0.9-1) \times I_n$

Instantaneous short-circuit current release fixed $10 \times I_n$

Internal accessories

Auxiliary contact unit	AX21	101395
Alarm contact unit	AL21	101396
Early-make auxiliary contact	EC 21	106315
Shunt trip releases	SHT21	101397-101405
Undervoltage releases	UVT21	101406-101407

Max. number of installed internal accessories is 2 pcs of AX21, 1 pc of AL21 or EC 21 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	101411-101415
Terminal cover, short	TCV21 3P, TCV21 4P	101439, 102372
Terminal cover, long	TCE21 3P, TCE21 4P	101440, 102373
Phase barrier set	PB21 3P, PB21 4P	101441, 102398
Connection terminals	MC21	103705-103708
DIN-rail adaptor	DRA21	106319

Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery

Electrical parameters

	Ex9MD1B	Ex9MD1S	Ex9MD1N	Ex9MD1H
Tested according to	IEC/EN 60947-2			
Rated op. voltage U_e	750 (3P), 1000 V DC (4P)			
Rated insulation voltage U_i	1000 V			
Rated impulse withstand voltage U_{imp}	8 kV			
Rated ultimate short-circuit breaking capacity I_{cu}	25 kA / 1000 V DC	36 kA / 1000 V DC	50 kA / 1000 V DC	100 kA / 1000 V DC
Rated service short-circuit breaking capacity I_{cs}	25 kA / 1000 V DC	36 kA / 1000 V DC	50 kA / 1000 V DC	100 kA / 1000 V DC
Rated short-circuit making capacity I_{cm}	52.5 kA / 1000 V DC	75.6 kA / 1000 V DC	105 kA / 1000 V DC	220kA / 1000 V DC
Rated current	16 — 125 A			
Overvoltage category	III			
Utilization category	A			
Mechanical service life	15 000 operation cycles			
Electrical service life	5 000 operation cycles			
Maximum frequency of switch. cycles	120 cycles per hour			
Total disconnection time at short circuit	< 2 ms			
Power loss per pole at 125 A	12.5 W			

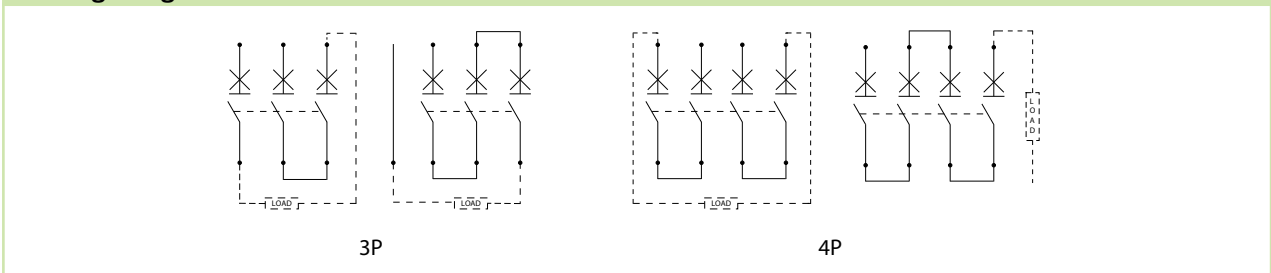
Technical Data Ex9MD1

DC Moulded Case Circuit Breakers up to 125 A

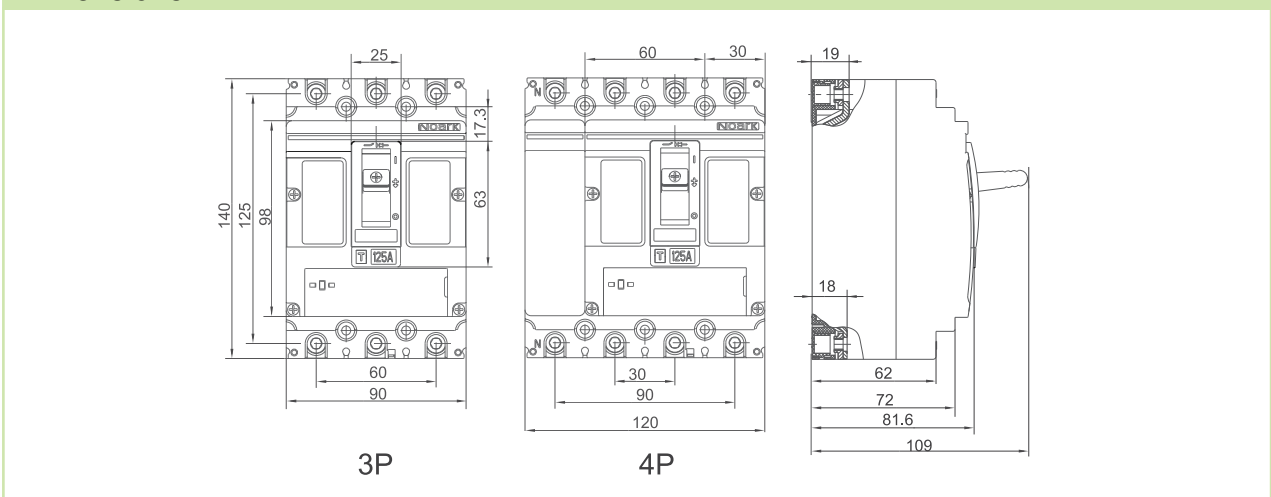
Mechanical parameters

Device width (3P / 4P)	90 mm / 120 mm
Device height	140 mm
Device depth	81.6 mm
Mounting	onto panel
Degree of protection	IP40, IP20 terminals
Terminals	M6 screws
Busbar thickness	≤ 4 mm
Busbar width	≤ 14.2 mm
Cable lug width	≤ 14.2 mm
Fastening torque of terminals	10 — 15 Nm
Ambient temperature	-25 — +70 °C
Altitude	≤ 2000 m
Relative humidity	≤ 50 % at 40 °C, ≤ 90 % monthly average
Resistance to humidity and heat	class 2
Pollution degree	3
Weight (3P / 4P)	1.2 kg / 1.7 kg
Mounting position	vertical, can be rotated by 90° in each axis

Wiring diagram



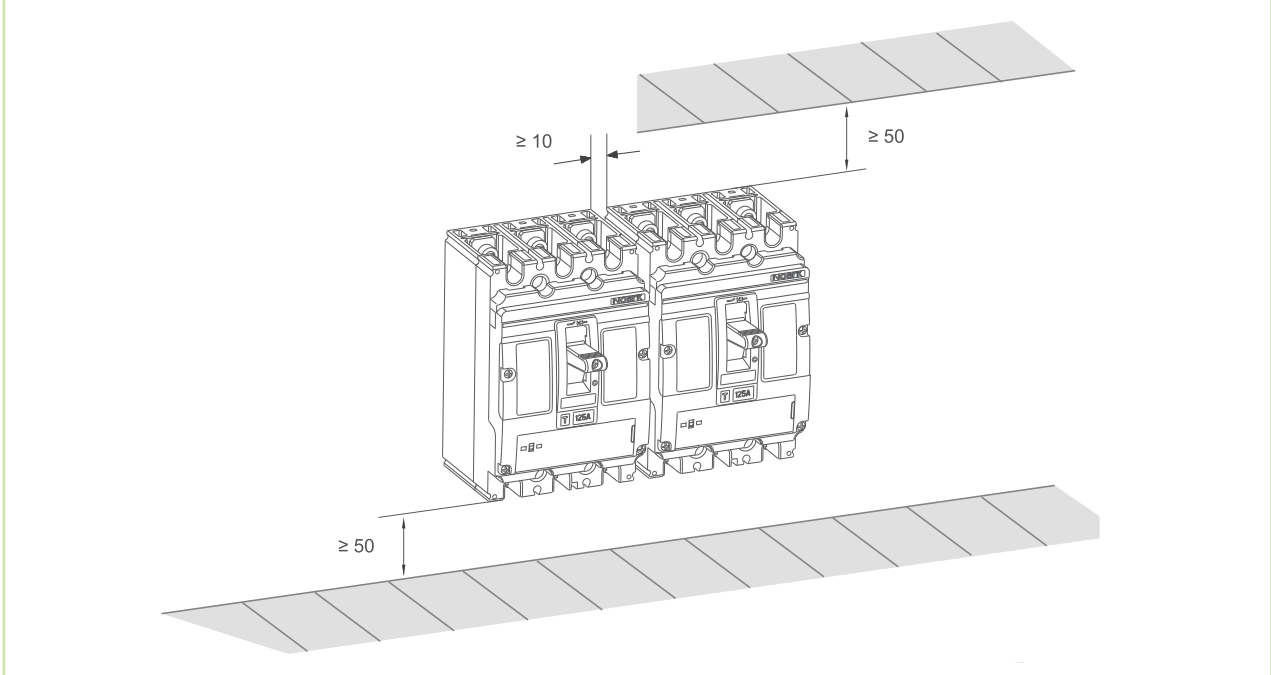
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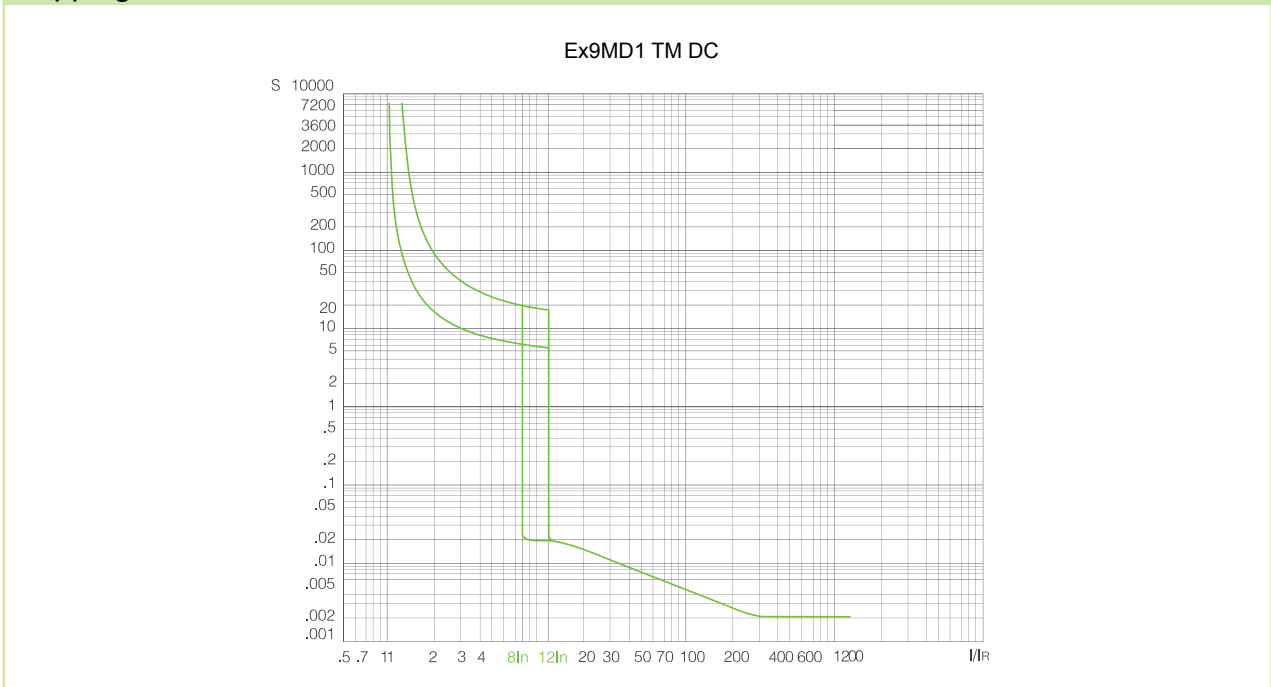
Technical Data Ex9MD1

DC Moulded Case Circuit Breakers up to 125 A

Installation space



Tripping characteristic



Technical Data Ex9MD2

DC Moulded Case Circuit Breakers up to 250 A

General parameters

Suitable for PV and similar applications

Thermal release adjustable $(0.8-0.9-1) \times I_n$

Instantaneous short-circuit current release $(5-6-7-8-9-10) \times I_n$

Internal accessories

Auxiliary contact unit	AX21	101395
Alarm contact unit	AL21	101396
Early-make auxiliary contact	EC 21	106315
Shunt trip releases	SHT22	101416-101424
Undervoltage releases	UVT22	101425-101426

Max. number of installed internal accessories is 2 pcs of AX21, 1 pc of AL21 or EC 21 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	101430-101434
Terminal cover, short	TCV22 3P, TCV22 4P	101442, 102374
Terminal cover, long	TCE22 3P, TCE22 4P	101443, 102375
Phase barrier set	PB22 3P, PB22 4P	101444, 102399
Connection terminals	MC22	103709-103714
DIN-rail adaptor	DRA22	106320

Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery

Electrical parameters

	Ex9MD2B	Ex9MD2S	Ex9MD2N	Ex9MD2H
Tested according to	IEC/EN 60947-2			
Rated op. voltage U_e	750 (3P), 1000 V DC (4P)			
Rated insulation voltage U_i	1000 V			
Rated impulse withstand voltage U_{imp}	8 kV			
Rated ultimate short-circuit breaking capacity I_{cu}	25 kA / 1000 V DC	36 kA / 1000 V DC	50 kA / 1000 V DC	100 kA / 1000 V DC
Rated service short-circuit breaking capacity I_{cs}	25 kA / 1000 V DC	36 kA / 1000 V DC	50 kA / 1000 V DC	100 kA / 1000 V DC
Rated short-circuit making capacity I_{cm}	52.5 kA / 1000 V DC	75.6 kA / 1000 V DC	105 kA / 1000 V DC	220kA / 1000 V DC
Rated current	125 — 250 A			
Overvoltage category	III			
Utilization category	A			
Mechanical service life	15 000 operation cycles			
Electrical service life	5 000 operation cycles			
Maximum frequency of switch. cycles	120 cycles per hour			
Total disconnection time at short circuit	< 2 ms			
Power loss per pole at 250 A	18.8 W			

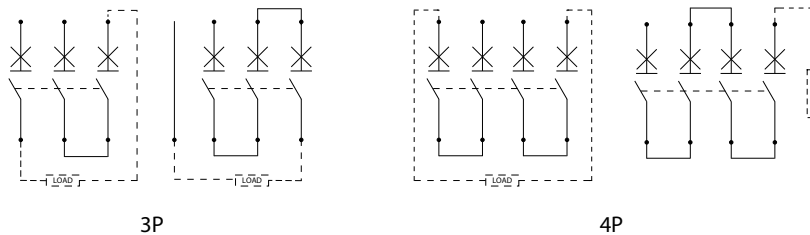
Technical Data Ex9MD2

DC Moulded Case Circuit Breakers up to 250 A

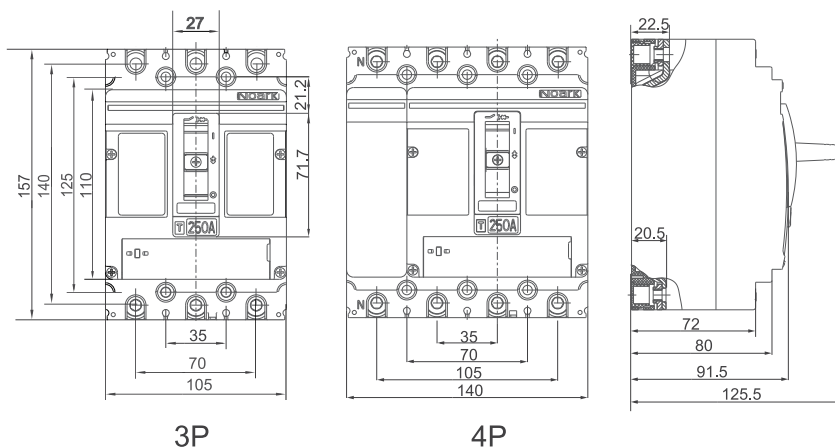
Mechanical parameters

Device width (3P / 4P)	105 mm / 140 mm
Device height	157 mm
Device depth	91.5 mm
Mounting	onto panel
Degree of protection	IP40, IP20 terminals
Terminals	M8 screws
Busbar thickness	≤ 6 mm
Busbar width	≤ 25 mm
Cable lug width	≤ 25 mm
Fastening torque of terminals	15 Nm
Ambient temperature	-25 — +70 °C
Altitude	≤ 2000 m
Relative humidity	≤ 50 % at 40 °C, ≤ 90 % monthly average
Resistance to humidity and heat	class 2
Pollution degree	3
Weight (3P / 4P)	1.7 / 2.2 kg
Mounting position	vertical, can be rotated by 90° in each axis

Wiring diagram



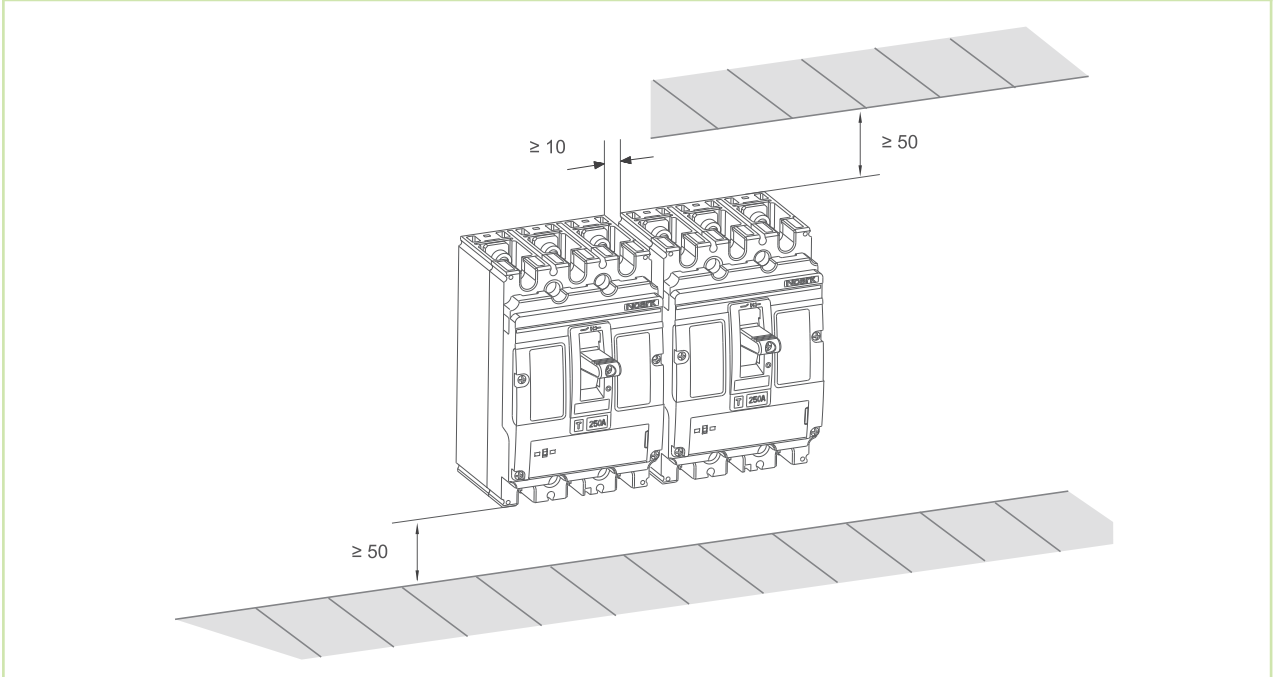
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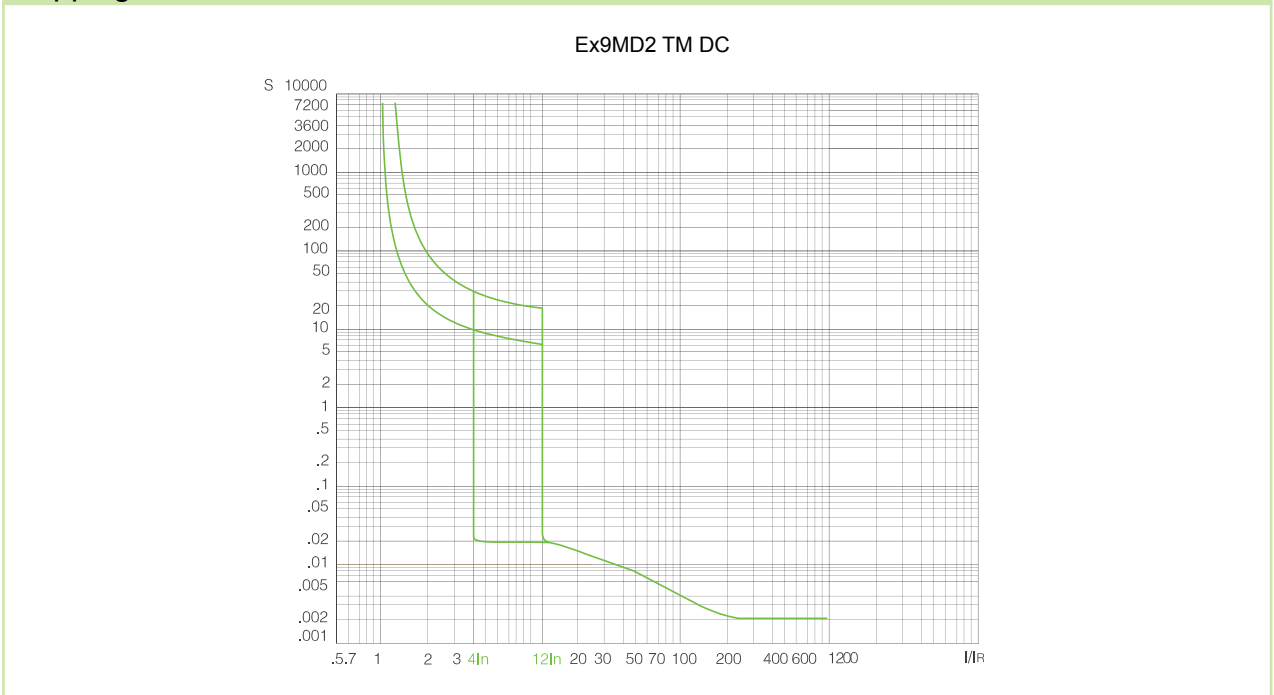
Technical Data Ex9MD2

DC Moulded Case Circuit Breakers up to 250 A

Installation space



Tripping characteristic



Technical Data Ex9MD3

DC Moulded Case Circuit Breakers up to 400 A

General parameters

Suitable for PV and similar applications

Thermal release adjustable $(0.8-0.9-1) \times I_n$

Instantaneous short-circuit current release $(5-6-7-8-9-10) \times I_n$

Internal accessories

Auxiliary contact unit	AX21	101395
Alarm contact unit	AL21	101396
Early-make auxiliary contact	EC 23	106317
Shunt trip releases	SHT22	101416-101424
Undervoltage releases	UVT22	101425-101426

Max. number of installed internal accessories is 3 pcs of AX21, 1 pc of AL21 or EC 23 and 1 pc of a release (SHT22 or UVT22)

External accessories

Direct rotary handle	RHD23	101429
Extended rotary handle	ERH23	101428
Remote motor operators	MOD23	101430-101434
Terminal cover, short	TCV23 3P, TCV23 4P	101442, 102376
Terminal cover, long	TCE23 3P, TCE23 4P	101443, 102377
Phase barrier set	PB23 3P, PB23 4P	101444, 102340
Connection terminals	MC23	103715-103722

Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery

Electrical parameters

	Ex9MD3B	Ex9MD3S	Ex9MD3N	Ex9MD3H
Tested according to	IEC/EN 60947-2			
Rated op. voltage U_e	750 (3P), 1000 V DC (4P)			
Rated insulation voltage U_i	1000 V			
Rated impulse withstand voltage U_{imp}	8 kV			
Rated ultimate short-circuit breaking capacity I_{cu}	25 kA / 1000 V DC	36 kA / 1000 V DC	50 kA / 1000 V DC	100 kA / 1000 V DC
Rated service short-circuit breaking capacity I_{cs}	25 kA / 1000 V DC	36 kA / 1000 V DC	50 kA / 1000 V DC	100 kA / 1000 V DC
Rated short-circuit making capacity I_{cm}	52.5 kA / 1000 V DC	75.6 kA / 1000 V DC	105 kA / 1000 V DC	220 kA / 1000 V DC
Rated current	250 — 400 A			
Overvoltage category	III			
Utilization category	A			
Mechanical service life	10 000 operation cycles			
Electrical service life	2 000 operation cycles			
Maximum frequency of switch. cycles	60 cycles per hour			
Total disconnection time at short circuit	< 2 ms			
Power loss per pole at 400 A	25 W			

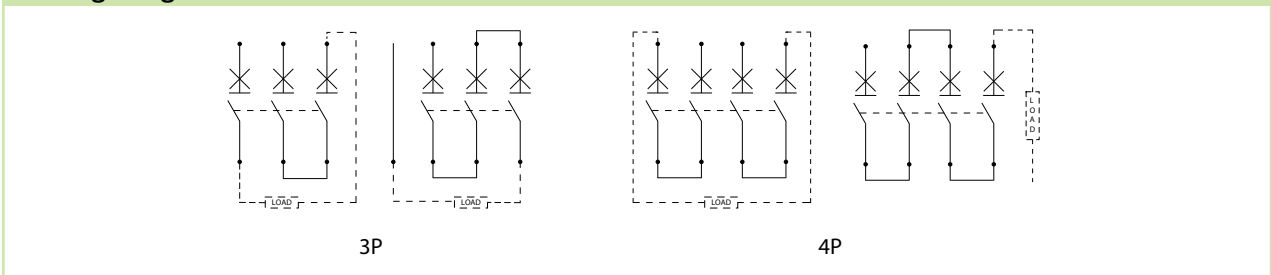
Technical Data Ex9MD3

DC Moulded Case Circuit Breakers up to 400 A

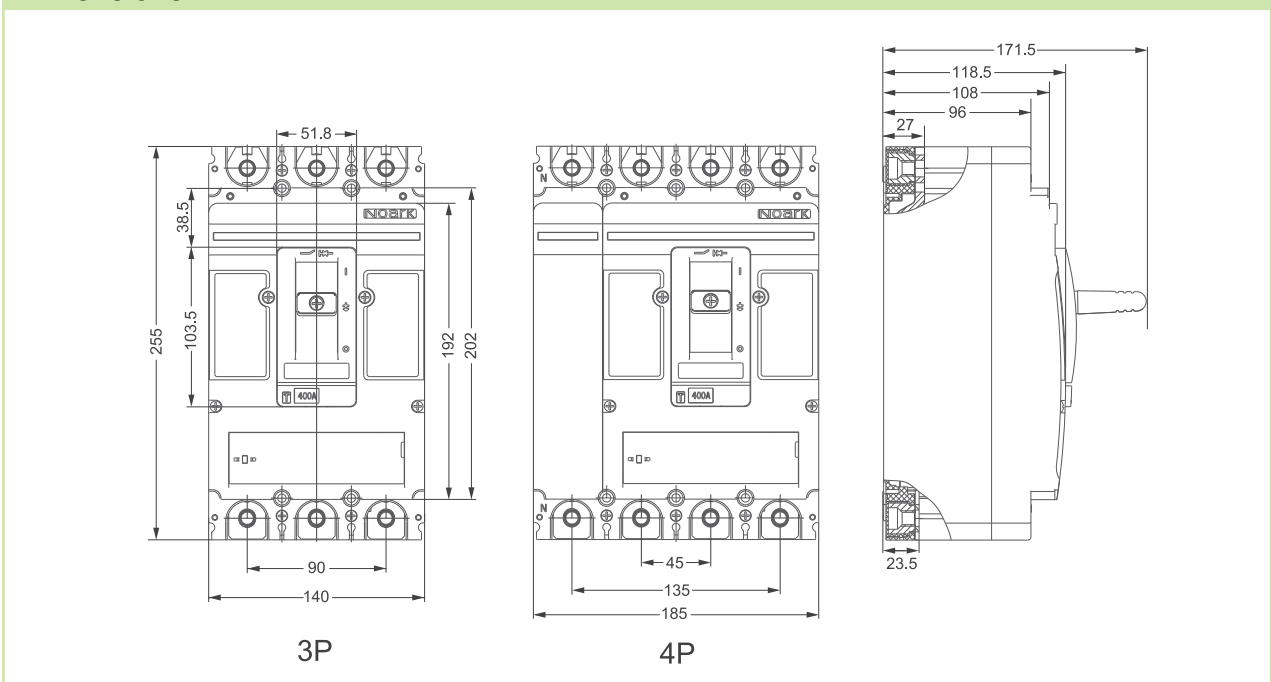
Mechanical parameters

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 — 30 Nm
Ambient temperature	-25 — +70 °C
Altitude	≤ 2000 m
Relative humidity	≤ 50 % at 40 °C, ≤ 90 % monthly average
Resistance to humidity and heat	class 2
Pollution degree	3
Weight (3P / 4P)	5 kg / 6.6 kg
Mounting position	vertical, can be rotated by 90° in each axis

Wiring diagram



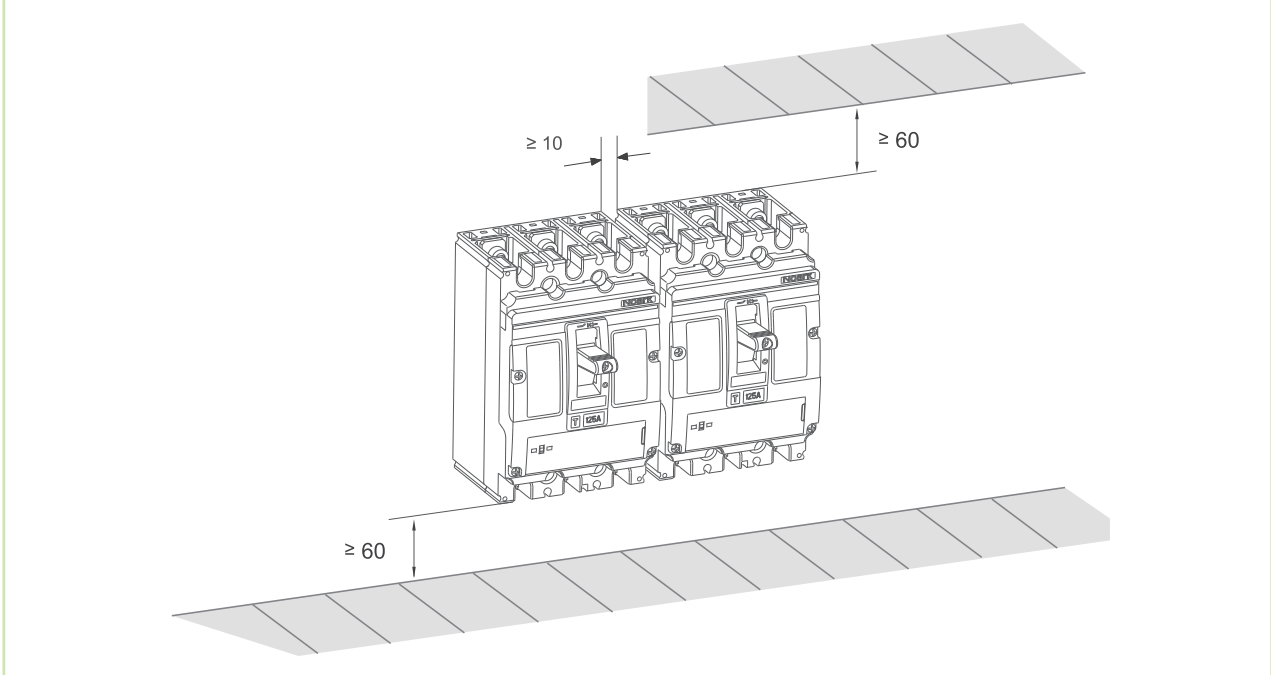
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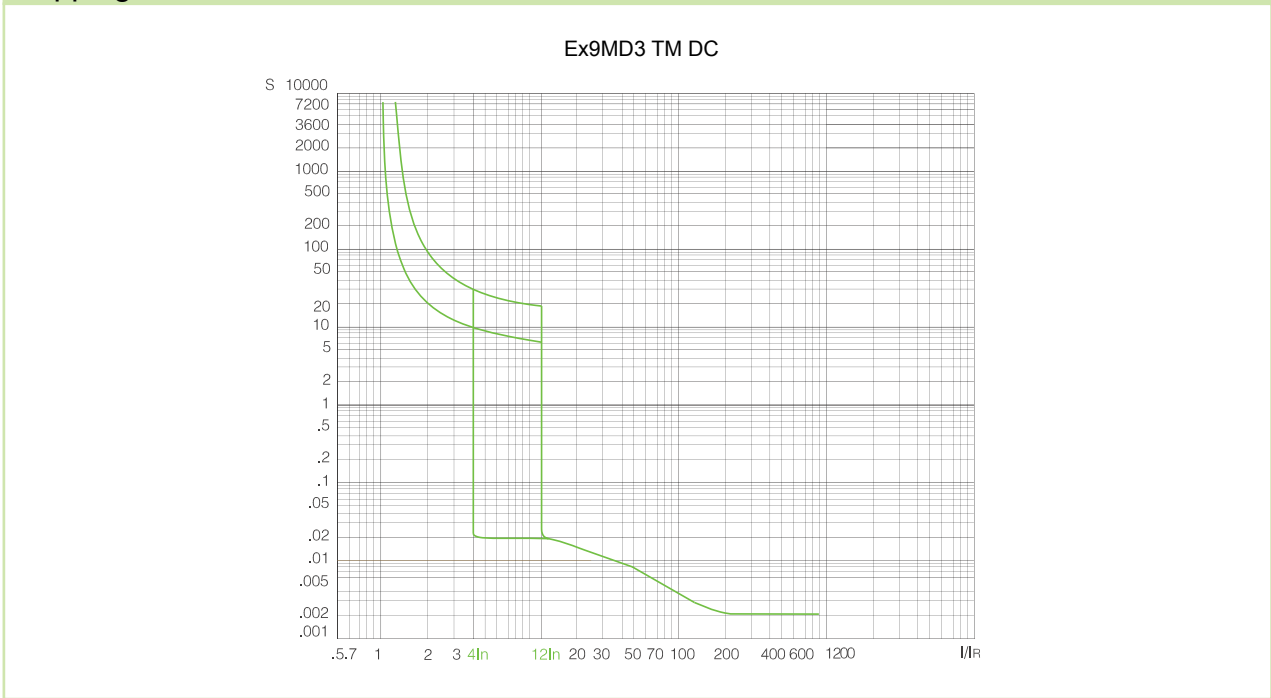
Technical Data Ex9MD3

DC Moulded Case Circuit Breakers up to 400 A

Installation space



Tripping characteristics



Technical Data Ex9MD4

DC Moulded Case Circuit Breakers up to 630 A

General parameters

Suitable for PV and similar applications

Thermal release adjustable $(0.8-0.9-1) \times I_n$

Instantaneous short-circuit current release $(5-6-7-8-9-10) \times I_n$

Internal accessories

Auxiliary contact unit	AX21	101395
Alarm contact unit	AL21	101396
Early-make auxiliary contact	EC 23	106317
Shunt trip releases	SHT24	103723
Undervoltage releases	UVT24	103733-103740

Max. number of installed internal accessories is 4 pcs of AX21, 1 pc of AL21 or EC 23 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	103743-103747
Terminal cover, short	TCV24 3P, TCV24 4P	103748, 103750
Terminal cover, long	TCE24 3P, TCE24 4P	103749, 104855
Phase barrier set	PB24 3P, PB24 4P	103751, 104856
Connection terminals	MC24	106314

Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery

Electrical parameters

	Ex9MD4B	Ex9MD4S	Ex9MD4N	Ex9MD4H
Tested according to	IEC/EN 60947-2			
Rated op. voltage U_e	750 (3P), 1000 V DC (4P)			
Rated insulation voltage U_i	1000 V			
Rated impulse withstand voltage U_{imp}	8 kV			
Rated ultimate short-circuit breaking capacity I_{cu}	25 kA / 1000 V DC	36 kA / 1000 V DC	50 kA / 1000 V DC	100 kA / 1000 V DC
Rated service short-circuit breaking capacity I_{cs}	25 kA / 1000 V DC	36 kA / 1000 V DC	50 kA / 1000 V DC	100 kA / 1000 V DC
Rated short-circuit making capacity I_{cm}	25 kA / 1000 V DC	36 kA / 1000 V DC	50 kA / 1000 V DC	100 kA / 1000 V DC
Rated current	400 — 630 A			
Overvoltage category	III			
Utilization category	A			
Mechanical service life	10 000 operation cycles			
Electrical service life	2 000 operation cycles			
Maximum frequency of switch. cycles	60 cycles per hour			
Total disconnection time at short circuit	< 2 ms			
Power loss per pole at 630 A	31.8 W			

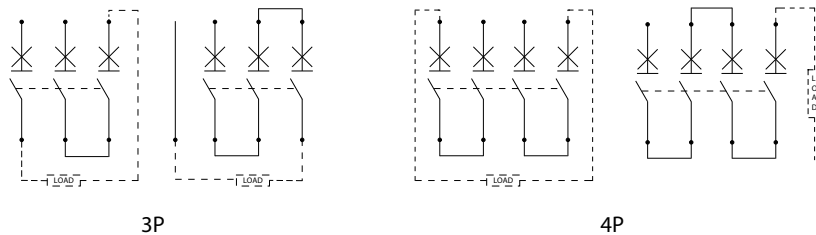
Technical Data Ex9MD4

DC Moulded Case Circuit Breakers up to 630 A

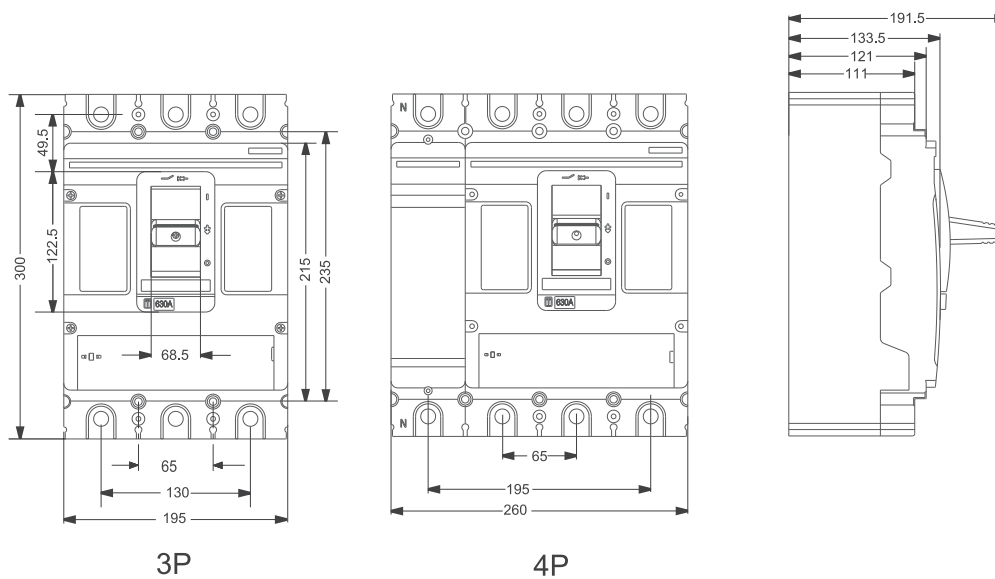
Mechanical parameters

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	M13 screws
Busbar thickness	≤ 10 mm
Busbar width	≤ 50 mm
Cable lug width	≤ 50 mm
Fastening torque of terminals	25 — 30 Nm
Ambient temperature	-25 — +70 °C
Altitude	≤ 2000 m
Relative humidity	≤ 50 % at 40 °C, ≤ 90 % monthly average
Resistance to humidity and heat	class 2
Pollution degree	3
Weight (3P / 4P)	10,2 kg / 13,5 kg
Mounting position	vertical, can be rotated by 90° in each axis

Wiring diagram



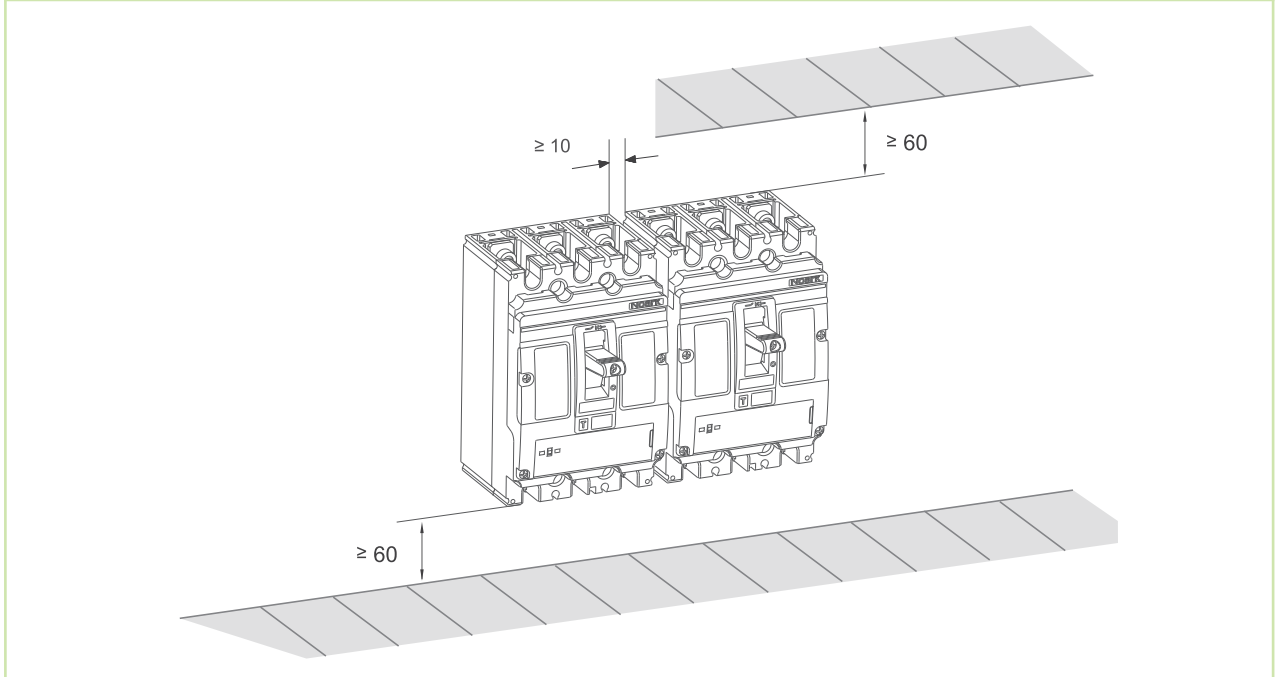
Dimensions



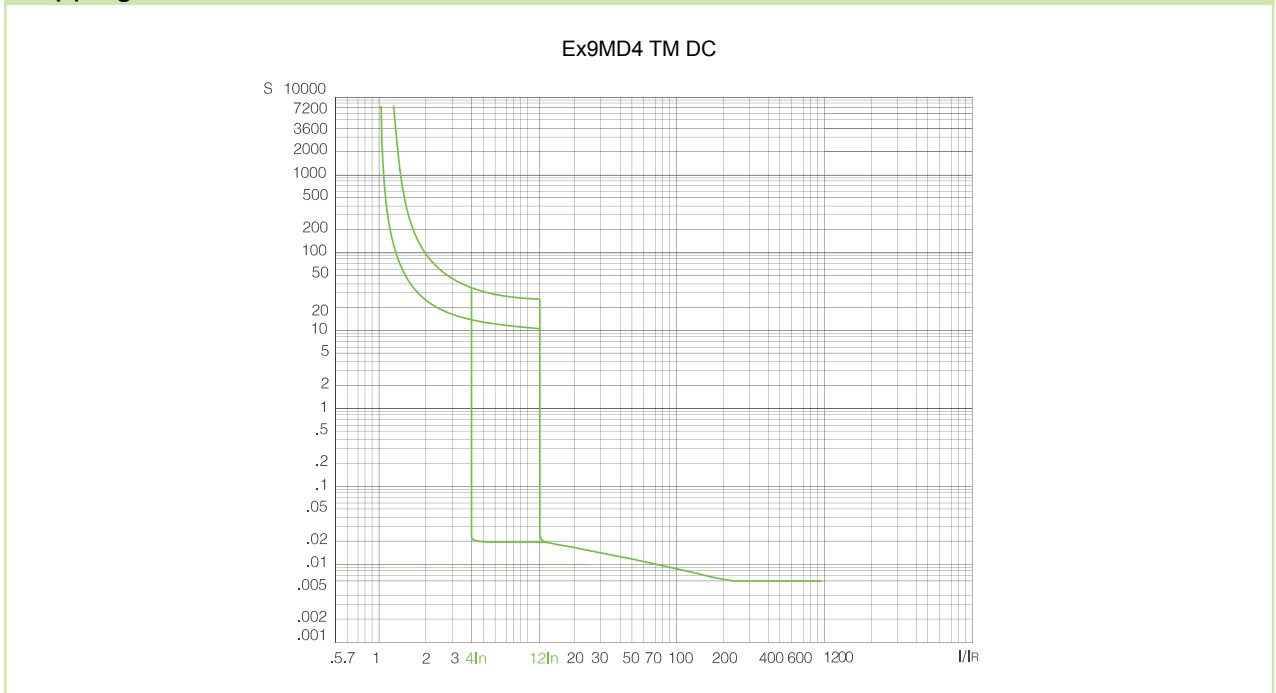
Technical Data Ex9MD4

DC Moulded Case Circuit Breakers up to 630 A

Installation space



Tripping characteristics



Technical Data Ex9MD5

DC Moulded Case Circuit Breakers up to 800 A

General parameters

Suitable for PV and similar applications

Thermal release adjustable $(0.8-0.9-1) \times I_n$

Instantaneous short-circuit current release $(5-6-7-8-9-10) \times I_n$

Internal accessories

Auxiliary contact unit	AX21	101395
Alarm contact unit	AL21	101396
Early-make auxiliary contact	EC 23	106317
Shunt trip releases	SHT24	103723-103730
Undervoltage releases	UVT24	103733-103740

Max. number of installed internal accessories is 4 pcs of AX21, 1 pc of AL21 or EC 23 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	103743-103747
Terminal cover, short	TCV24 3P, TCV24 4P	103748, 103750
Terminal cover, long	TCE24 3P, TCE24 4P	103749, 104855
Phase barrier set	PB24 3P, PB24 4P	103751, 104856
Connection terminals	MC24	106314

Mounting screws, interconnection busbars as well as phase barriers in the scope of delivery

Electrical parameters

	Ex9MD5B	Ex9MD5S	Ex9MD5N	Ex9MD5H
Tested according to	IEC/EN 60947-2			
Rated op. voltage U_e	750 (3P), 1000 V DC (4P)			
Rated insulation voltage U_i	1000 V			
Rated impulse withstand voltage U_{imp}	8 kV			
Rated ultimate short-circuit breaking capacity I_{cu}	25 kA / 1000 V DC	36 kA / 1000 V DC	50 kA / 1000 V DC	100 kA / 1000 V DC
Rated service short-circuit breaking capacity I_{cs}	25 kA / 1000 V DC	36 kA / 1000 V DC	50 kA / 1000 V DC	100 kA / 1000 V DC
Rated short-circuit making capacity I_{cm}	25 kA / 1000 V DC	36 kA / 1000 V DC	50 kA / 1000 V DC	100 kA / 1000 V DC
Rated current	630 — 800 A			
Overvoltage category	III			
Utilization category	A			
Mechanical service life	5 000 operation cycles			
Electrical service life	1 000 operation cycles			
Maximum frequency of switch. cycles	60 cycles per hour			
Total disconnection time at short circuit	< 2 ms			
Power loss per pole at 400 A	51.2 W			

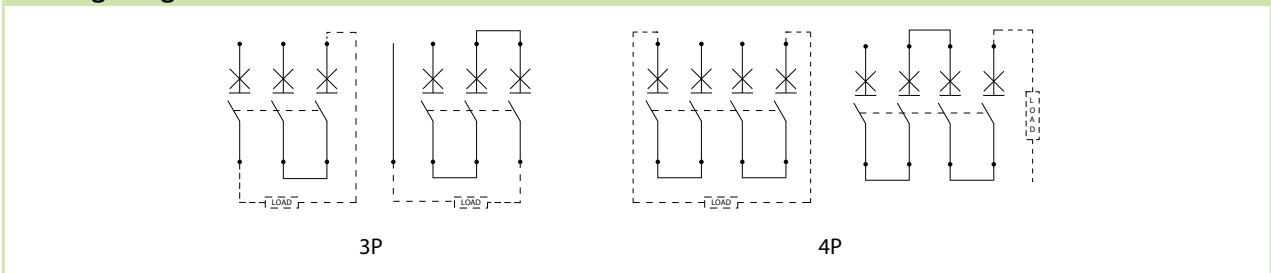
Technical Data Ex9MD5

DC Moulded Case Circuit Breakers up to 800 A

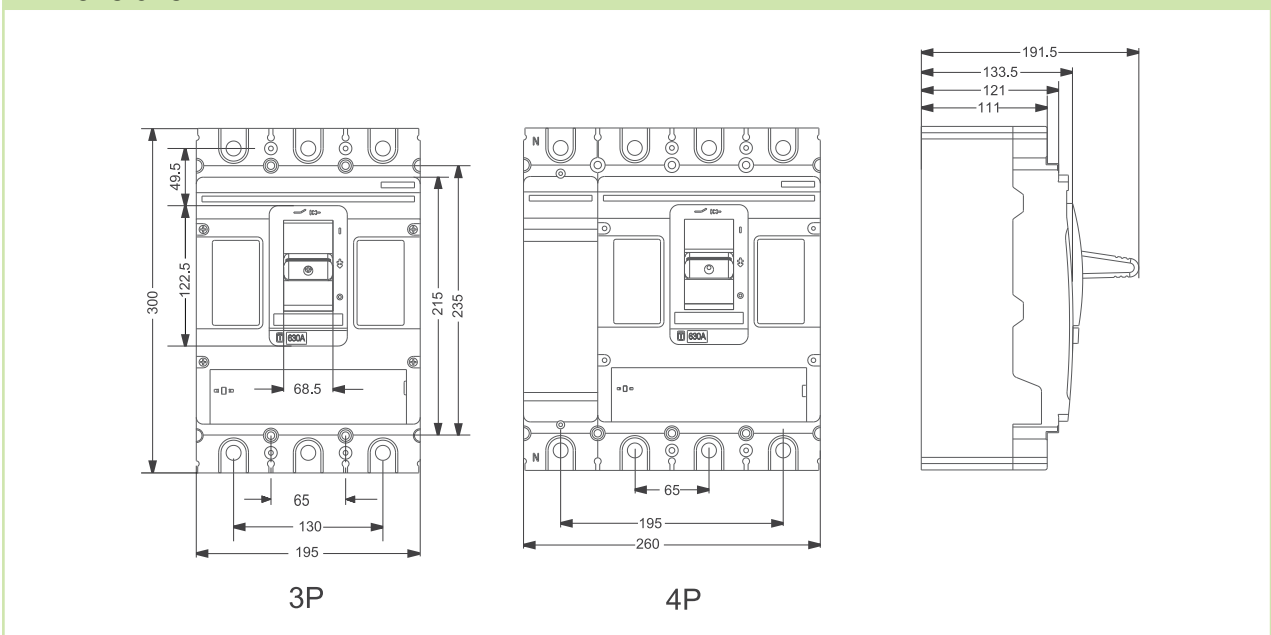
Mechanical parameters

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	M13 screws
Busbar thickness	≤ 10 mm
Busbar width	≤ 50 mm
Cable lug width	≤ 50 mm
Fastening torque of terminals	25 — 30 Nm
Ambient temperature	-25 — +70 °C
Altitude	≤ 2000 m
Relative humidity	≤ 50 % at 40 °C, ≤ 90 % monthly average
Resistance to humidity and heat	class 2
Pollution degree	3
Weight (3P / 4P)	10,2 kg / 13,5 kg
Mounting position	vertical, can be rotated by 90° in each axis

Wiring diagram



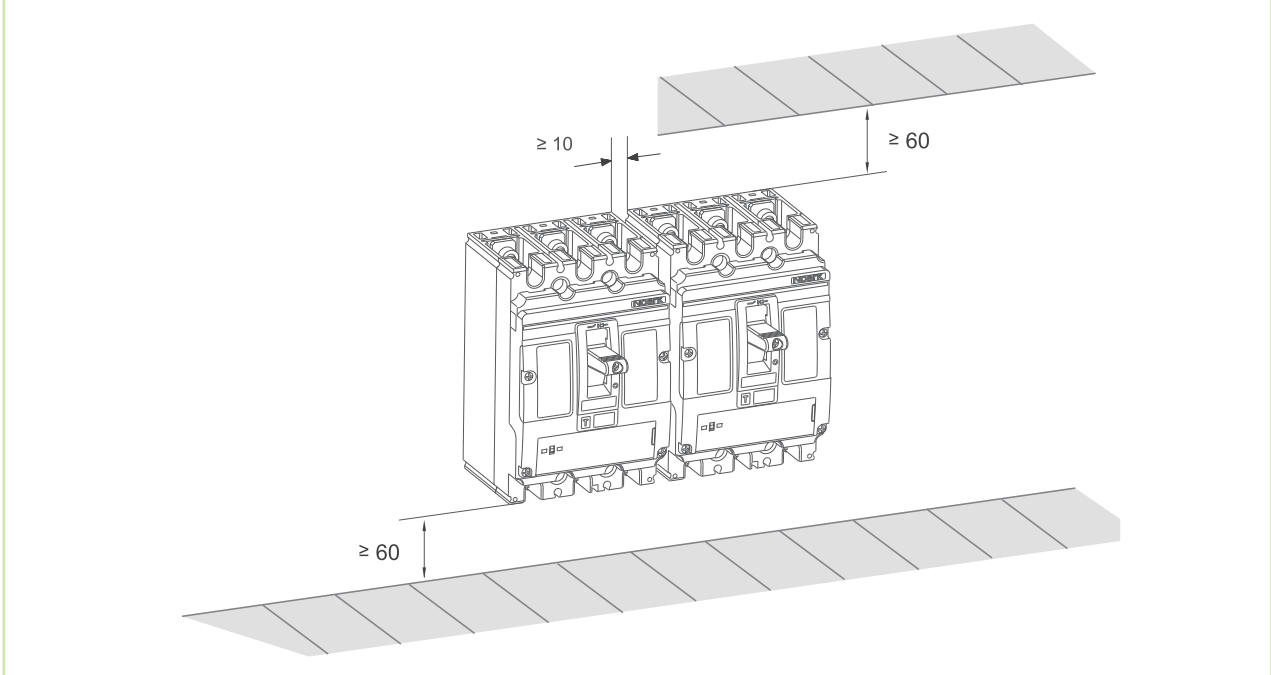
Dimensions



Technical Data Ex9MD5

DC Moulded Case Circuit Breakers up to 800 A

Installation space



Tripping characteristics

