

# Moulded Case Circuit Breakers Ex9M AC TM



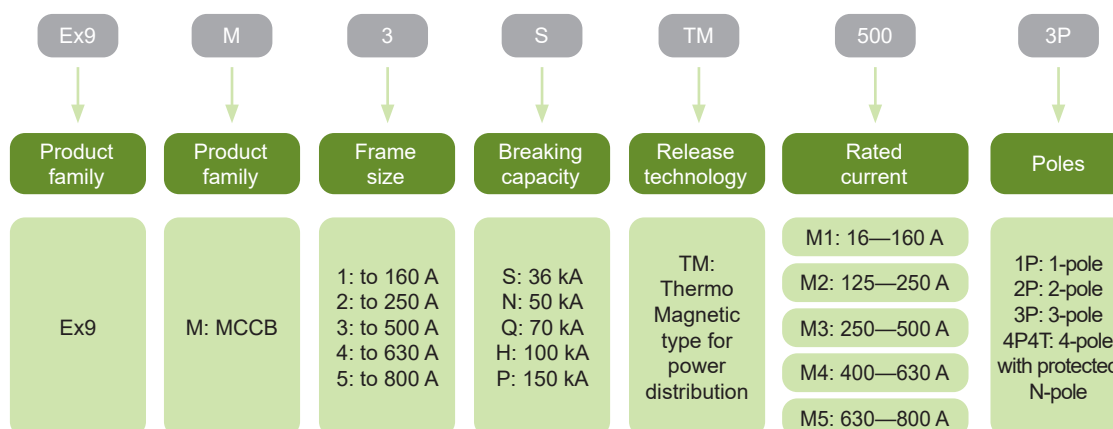
- Thermo-magnetic tripping unit for power distribution
- Frame sizes M1-M5
- Rated operating current up to 800 A
- 1, 2, 3 and 4-pole versions
- Rated ultimate short circuit breaking capacity  $I_{cu} = I_{cs}$  up to 150 kA,
- Rated voltage 415 / 690 V AC

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 occurrences of transient overvoltage waves of high intensity, e.g. in heavy industry.

Utilization category A circuit breakers.

## Type Key

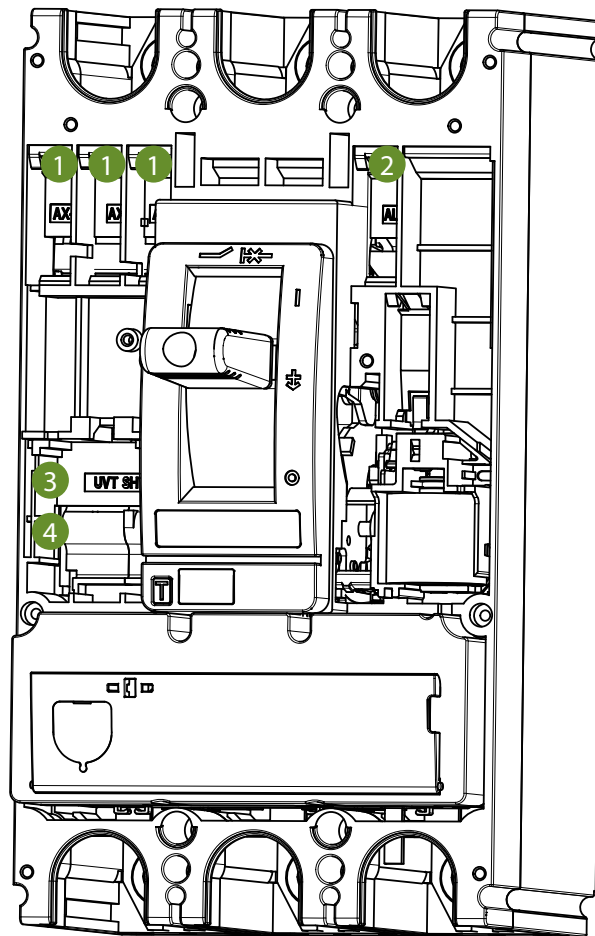


## Certification marks



# Moulded Case Circuit Breakers Ex9M AC TM

## Internal accessories



1

Auxiliary contact  
**AX21/M**

2

Signal contact  
**AL21/M**

3

Shunt trip release  
**SHT2i**  
1 unit or UVT2i

4

Undervoltage release  
**UVT2i**  
1 unit or SHT2i

Auxiliary contact AX21/M

Signal contact AL21/M

Shunt trip releases SHT2i

Undervoltage releases UVT2i

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

# Moulded Case Circuit Breakers Ex9M AC TM

## External accessories Ex9M1-M5 AC TM



Phase barriers  
**PHS2i**



Terminal cover, short  
**TCV2i**



Terminal cover, long  
**TCE2i**



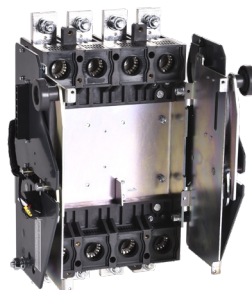
Remote operator  
**MOD2i**



Direct rotary handle  
**RHD2i**



Extended rotary handle  
**ERH2i**



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



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

Phase barriers PHS2i

Terminal cover, short TCV2i

Terminal cover, long TCE2i

Remote operators MOD2i

Direct rotary handles RHD2i

Extended rotary handles ERH2i

Draw-Out Base DOB 2i F/B

Plug-In Base PIA 2i F/B

# Moulded Case Circuit Breakers Ex9M AC TM

## External accessories Ex9M1-M5 AC TM



Tunnel terminals  
**MC2i W**



Mounting depth spacers  
**WG i**



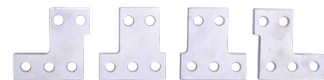
Box terminals  
**MC2i**



Screw terminals  
**MCS2i**



Din rail adapter  
**DRA2i**



Front plate connection  
**JP 2i**



Rear connection plate  
**RCP 2i**



Off position toggle key  
lock  
**KLK 2i**



Mechanical interlock  
**MIT 2i**

Tunnel terminals MC2i W

Mounting depth spacers WG i

Box terminals MC2i

Screw terminals MCS2i

Din rail DRA2i

Front plate connection JP 2i

Rear connection plate RCP 2i

Off position toggle key lock KLK 2i

Mechanical interlock MIT 2i

# Moulded Case Circuit Breakers Ex9M AC TM

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

- 1, 2, 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 36 \text{ kA}$  at 415 V AC
- $I_r (1.0)$  Not adjustable (1 Pole)
- $I_r$  can be set in range  $(0.7 - 1.0) \times I_n$
- $I_r (10)$  range not adjustable (1 Pole)
- $I_r$  can be set in range  $(5 - 10) \times I_n$  for 125 A and 160 A types, otherwise is fixed at  $10 \times I_n$
- $I_{IN}$  fixed at  $10 \times I_n$
- 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  $(0.7 - 1.0) \times I_n$
- $I_r(10)$  range not adjustable (1 Pole)
- $I_r$  can be set in range  $(5 - 10) \times I_n$  for 125 A and 160 A types, otherwise is fixed at  $10 \times I_n$
- $I_{IN}$  fixed at  $10 \times I_n$
- 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  $(0.7 - 1.0) \times I_n$
- $I_r$  can be set in range  $(5 - 10) \times I_n$  for 125 A and 160 A types, otherwise is fixed at  $10 \times I_n$
- $I_{th}$  fixed at  $10 \times I_n$
- 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  $(0.7 - 1.0) \times I_n$
- $I_r$  can be set in range  $(5 - 10) \times I_n$  for 125 A and 160 A types, otherwise is fixed at  $10 \times I_n$
- $I_{th}$  fixed at  $10 \times I_n$
- 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  $(0.7 - 1.0) \times I_n$
- $I_r$  can be set in range  $(5 - 10) \times I_n$  for 125 A and 160 A types, otherwise is fixed at  $10 \times I_n$
- $I_{th}$  fixed at  $10 \times I_n$
- 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  $(0.7 - 1.0) \times I_n$
- $I_i$  (10) range not adjustable (1 Pole)
- $I_i$  can be set in range  $(7 - 12) \times I_n$  for 125 A and  $(5 - 10) \times I_n$  for other devices up to 250 A
- $I_{th} = I_i$
- 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  $(0.7 - 1.0) \times I_n$
- $I_i(10)$  range not adjustable (1 Pole)
- $I_i$  can be set in range  $(7 - 12) \times I_n$  for 125 A and  $(5 - 10) \times I_n$  for other devices up to 250 A
- $I_{th} = I_i$
- 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, $I_{cu} = 75 \text{ kA}$

- 2, 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 75 \text{ kA}$  at 415 V AC
- $I_r$  can be set in range  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(7 - 12) \times I_n$  for 125 A and  $(5 - 10) \times I_n$  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, $I_{cu} = 100 \text{ kA}$

- 2, 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 100 \text{ kA}$  at 415 V AC
- $I_r$  can be set in range  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(7 - 12) \times I_n$  for 125 A and  $(5 - 10) \times I_n$  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  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(7 - 12) \times I_n$  for 125 A and  $(5 - 10) \times I_n$  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  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(5 - 10) \times I_n$
- $I_{IN} = I_i$
- 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  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(5 - 10) \times I_n$
- $I_{IN} = I_i$
- 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  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(5 - 10) \times I_n$
- $I_{IN} = I_i$
- 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  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(5 - 10) \times I_n$
- $I_{IN} = I_i$
- 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  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(5 - 10) \times I_n$
- $I_{IN} = I_i$
- 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  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(5 - 10) \times I_n$
- $I_{IN} = I_i$
- 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  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(5 - 10) \times I_n$
- $I_{IN} = I_i$
- 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  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(5 - 10) \times I_n$
- $I_{IN} = I_i$
- 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  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(5 - 10) \times I_n$
- $I_{IN} = I_i$
- 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  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(5 - 10) \times I_n$
- $I_{IN} = I_i$
- 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  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(5 - 10) \times I_n$
- $I_{IN} = I_i$
- 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  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(5 - 10) \times I_n$
- $I_{IN} = I_i$
- 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  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(5 - 10) \times I_n$
- $I_{IN} = I_i$
- 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  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(5 - 10) \times I_n$
- $I_{IN} = I_i$
- 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  $(0.7 - 1.0) \times I_n$
- $I_i$  can be set in range  $(5 - 10) \times I_n$
- $I_{IN} = I_i$
- 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  $(0.7 — 1.0) \times I_n$

$I_i$  (10) range not adjustable (1 Pole)

$I_i$  can be set in range  $(5 — 10) \times I_n$  for 125 A and 160 A types (3 and 4 Pole) , otherwise is fixed at  $10 \times I_n$

$I_{IN}$  fixed at  $10 \times I_n$

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<br>6 kA / 690 V                                          | 50 kA / 415 V<br>8 kA / 690 V | 70 kA / 415 V<br>8 kA / 690 V | 100 kA / 415 V<br>10 kA / 690 V | 150 kA / 415 V<br>10 kA / 690 V |
| Rated service short-circuit breaking capacity $I_{cs}$  | 36 kA / 415 V<br>6 kA / 690 V                                          | 50 kA / 415 V<br>8 kA / 690 V | 70 kA / 415 V<br>8 kA / 690 V | 100 kA / 415 V<br>10 kA / 690 V | 150 kA / 415 V<br>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<br>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<br>[°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

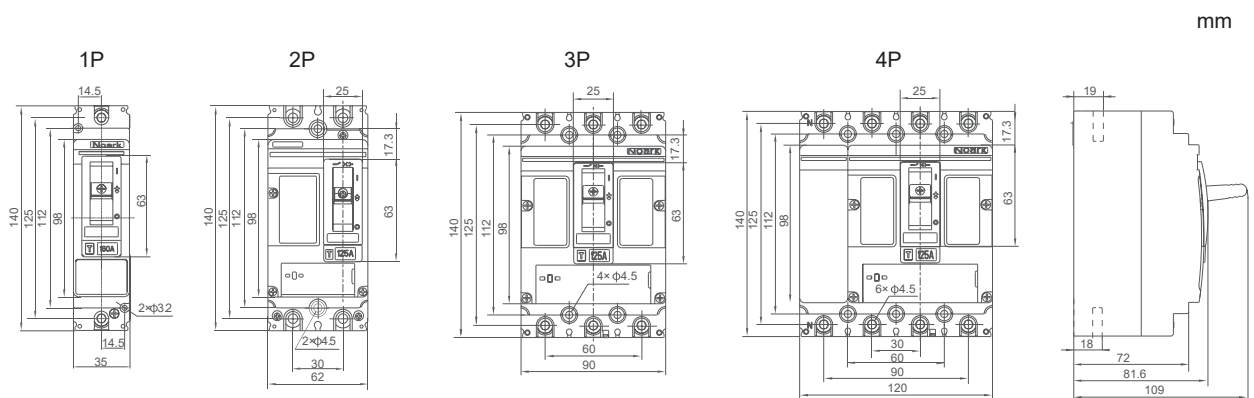
### Mechanical parameters

|                               |                                              |
|-------------------------------|----------------------------------------------|
| 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 <sup>2</sup>                       |
| 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 |

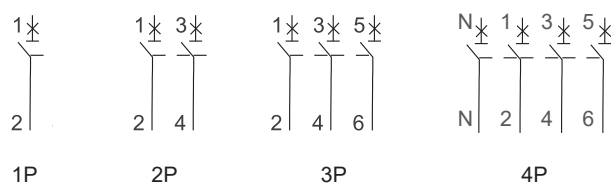
### Derating coefficient of technical parameters based on altitude

| Altitude                                  | ≤ 2 000 m | 3 000 m   | 4 000 m   | 5 000 m   |
|-------------------------------------------|-----------|-----------|-----------|-----------|
| Derating 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



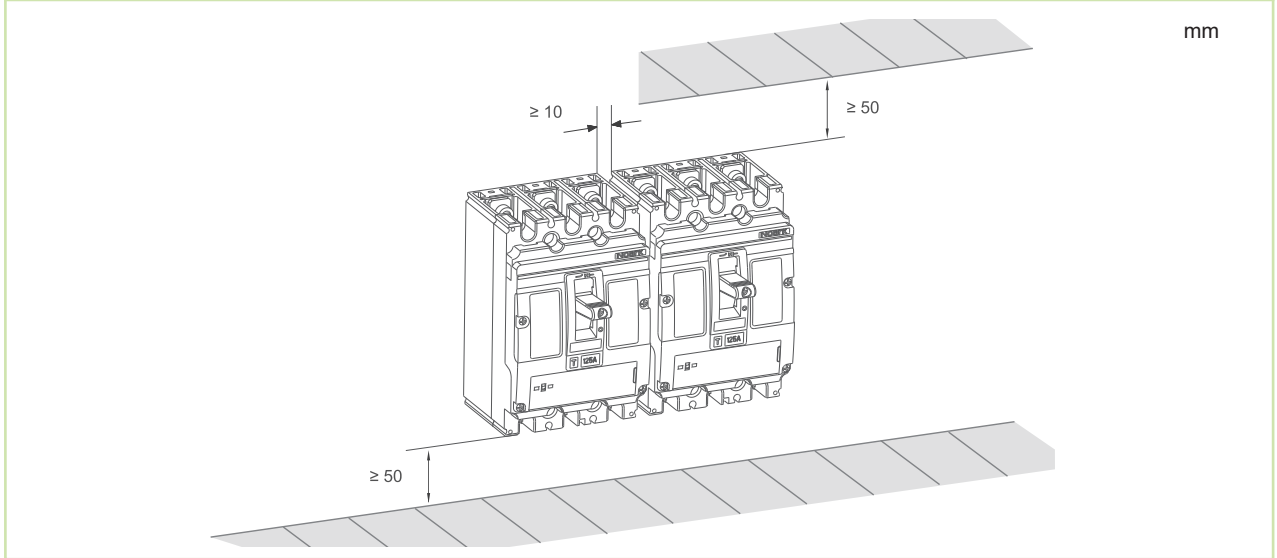
### Wiring diagram



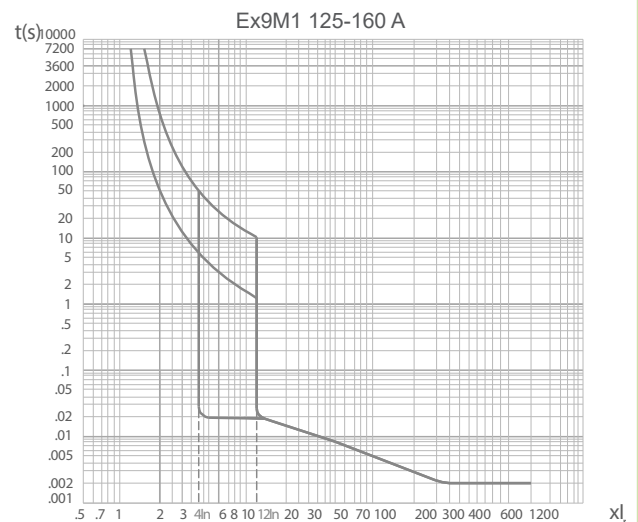
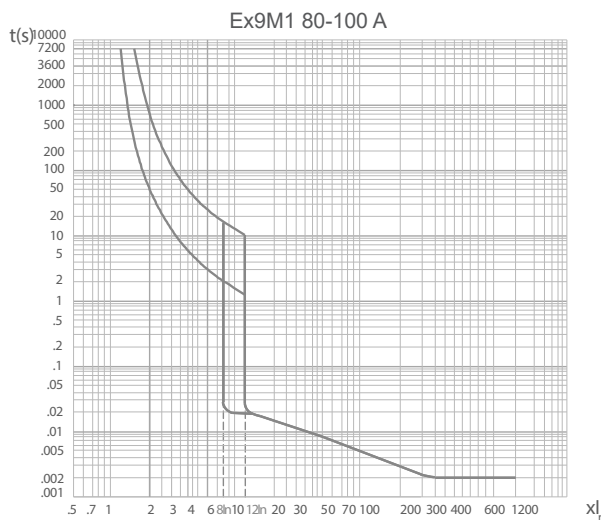
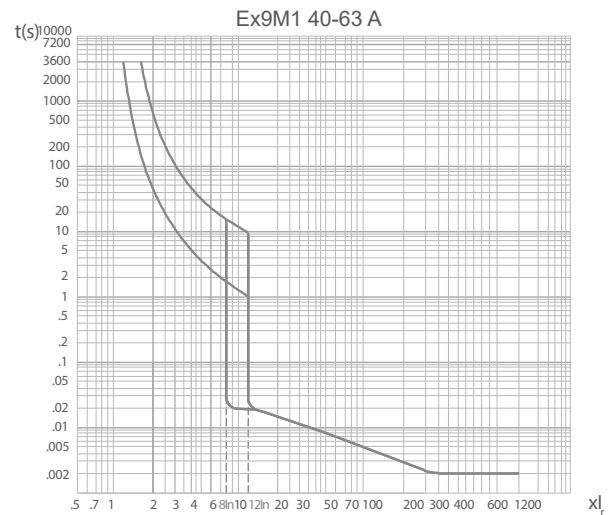
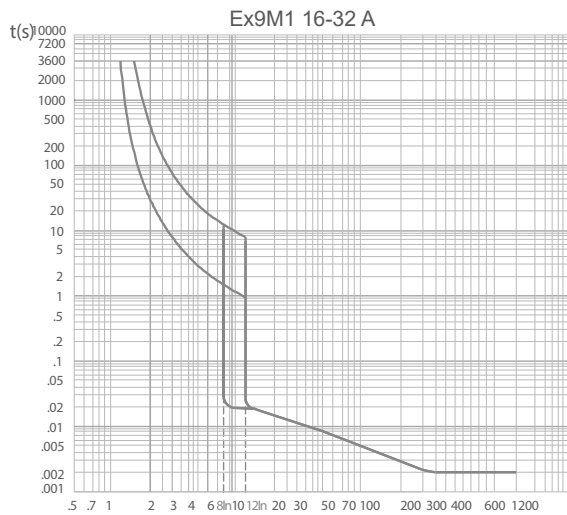
# Technical Data Ex9M1 AC TM

## AC TM Moulded Case Circuit Breakers up to 160 A

### Installation space



### Tripping characteristics



# 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  $(0.7 — 1.0) \times I_n$

$I_i$  can be set in range  $(7 — 12) \times I_n$  for 125 A and  $(5 — 10) \times I_n$  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<br>6 kA / 690 V                                          | 50 kA / 415 V<br>8 kA / 690 V | 70 kA / 415 V<br>8 kA / 690 V | 100 kA / 415 V<br>10 kA / 690 V | 150 kA / 415 V<br>10 kA / 690 V |
| Rated service short-circuit breaking capacity $I_{cs}$  | 36 kA / 415 V<br>6 kA / 690 V                                          | 50 kA / 415 V<br>8 kA / 690 V | 70 kA / 415 V<br>8 kA / 690 V | 100 kA / 415 V<br>10 kA / 690 V | 150 kA / 415 V<br>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<br>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<br>[°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

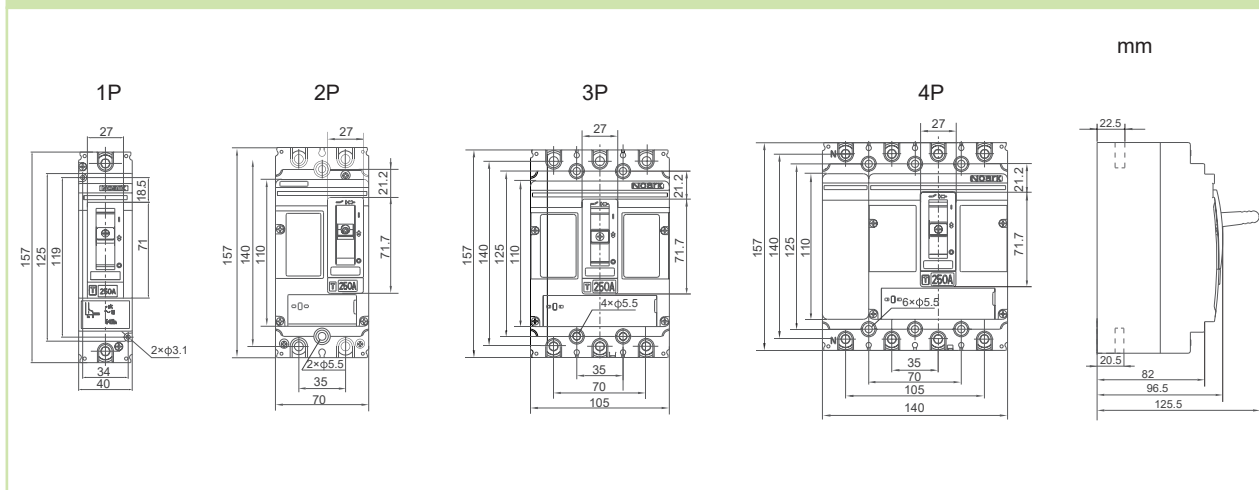
### Mechanical parameters

|                                |                                              |
|--------------------------------|----------------------------------------------|
| 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 <sup>2</sup>                     |
| 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 |

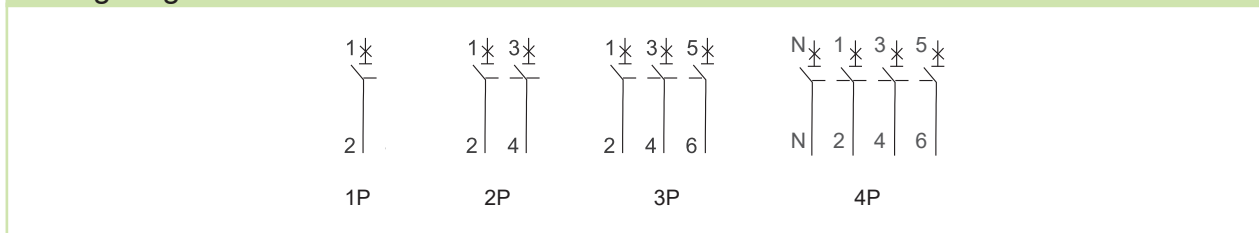
### Derating coefficient of technical parameters based on altitude

| Altitude                                  | ≤ 2 000 m | 3 000 m   | 4 000 m   | 5 000 m   |
|-------------------------------------------|-----------|-----------|-----------|-----------|
| Derating 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



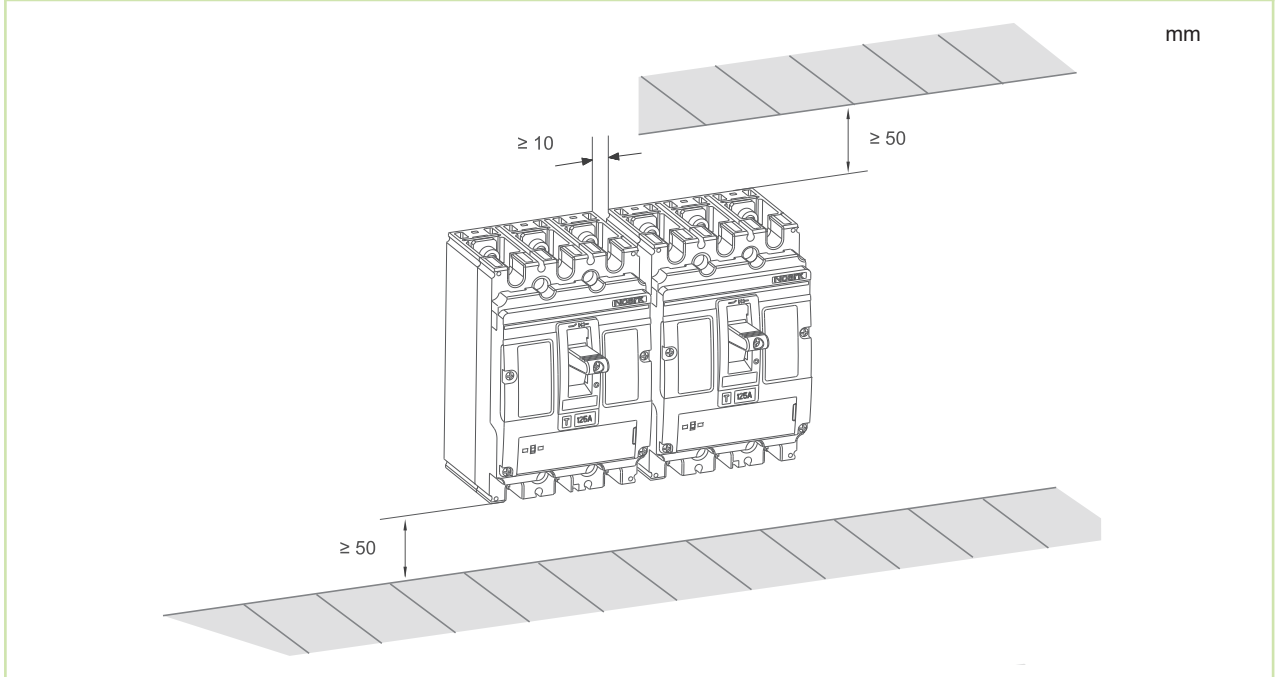
### Wiring diagram



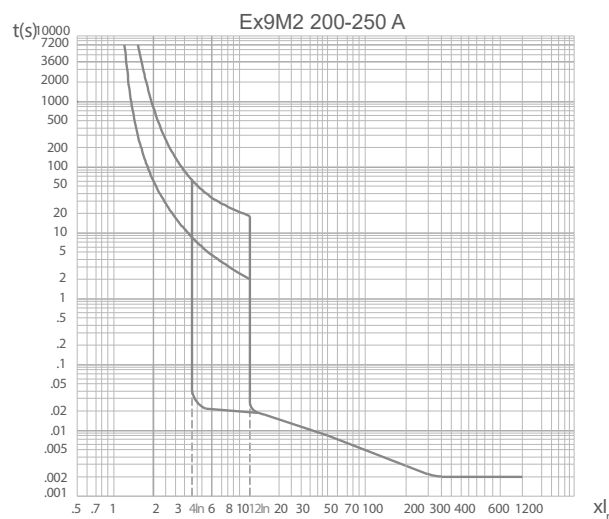
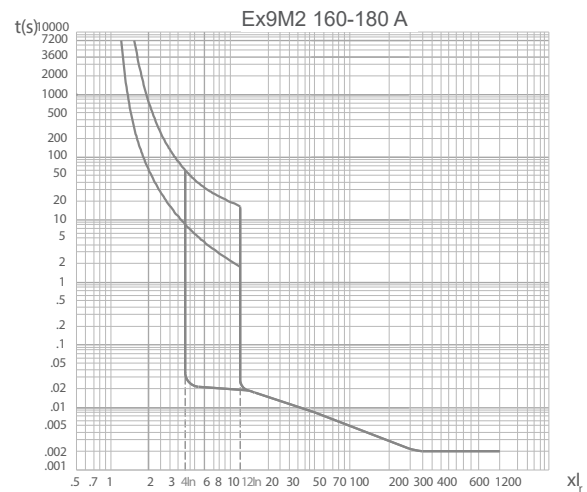
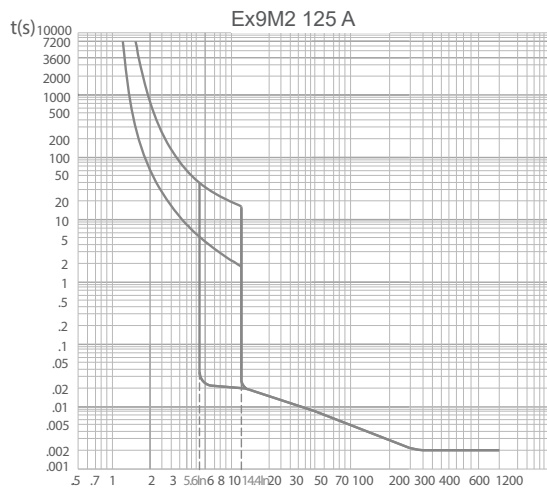
# Technical Data Ex9M2 AC TM

## AC TM Moulded Case Circuit Breakers up to 250 A

### Installation space



### 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  $(0.7 — 1.0) \times I_n$

$I_i$  can be set in range  $(5 — 10) \times I_n$

$I_{IN} = I_i$

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<br>10 kA / 690 V                                         | 50 kA / 415 V<br>12 kA / 690 V | 70 kA / 415 V<br>12 kA / 690 V | 100 kA / 415 V<br>15 kA / 690 V | 150 kA / 415 V<br>15 kA / 690 V |
| Rated service short-circuit breaking capacity $I_{cs}$  | 36 kA / 415 V<br>10 kA / 690 V                                         | 50 kA / 415 V<br>12 kA / 690 V | 70 kA / 415 V<br>12 kA / 690 V | 100 kA / 415 V<br>15 kA / 690 V | 150 kA / 415 V<br>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<br>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<br>[°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

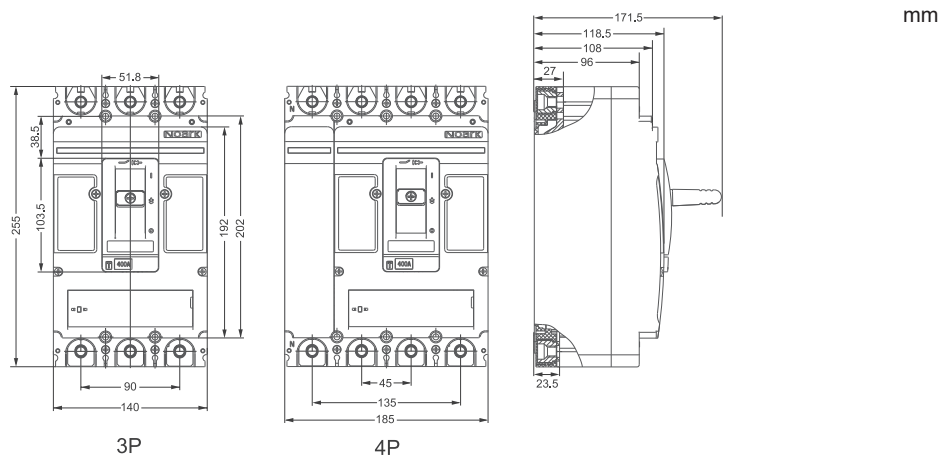
### Mechanical parameters

|                               |                                              |
|-------------------------------|----------------------------------------------|
| 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 |

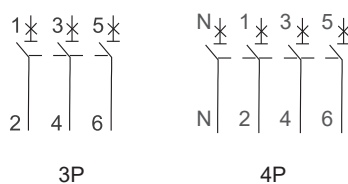
### Derating coefficient of technical parameters based on altitude

| Altitude                                  | ≤ 2 000 m | 3 000 m   | 4 000 m   | 5 000 m   |
|-------------------------------------------|-----------|-----------|-----------|-----------|
| Derating 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



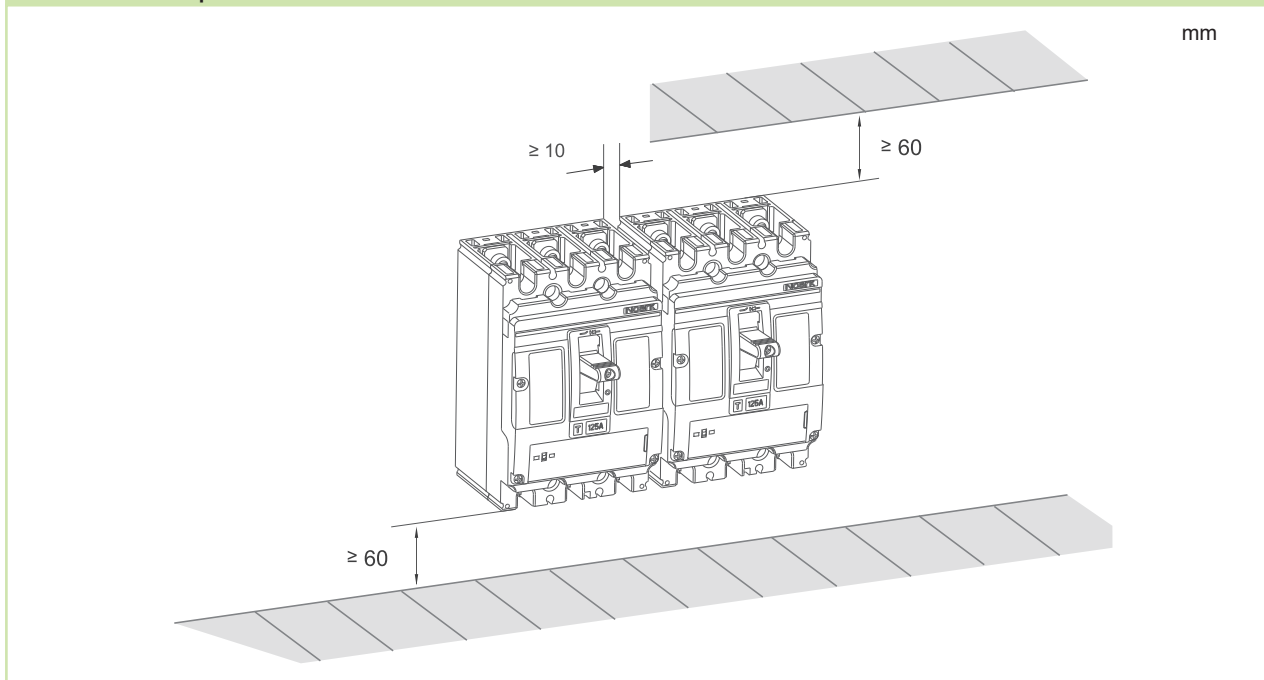
### Wiring diagram



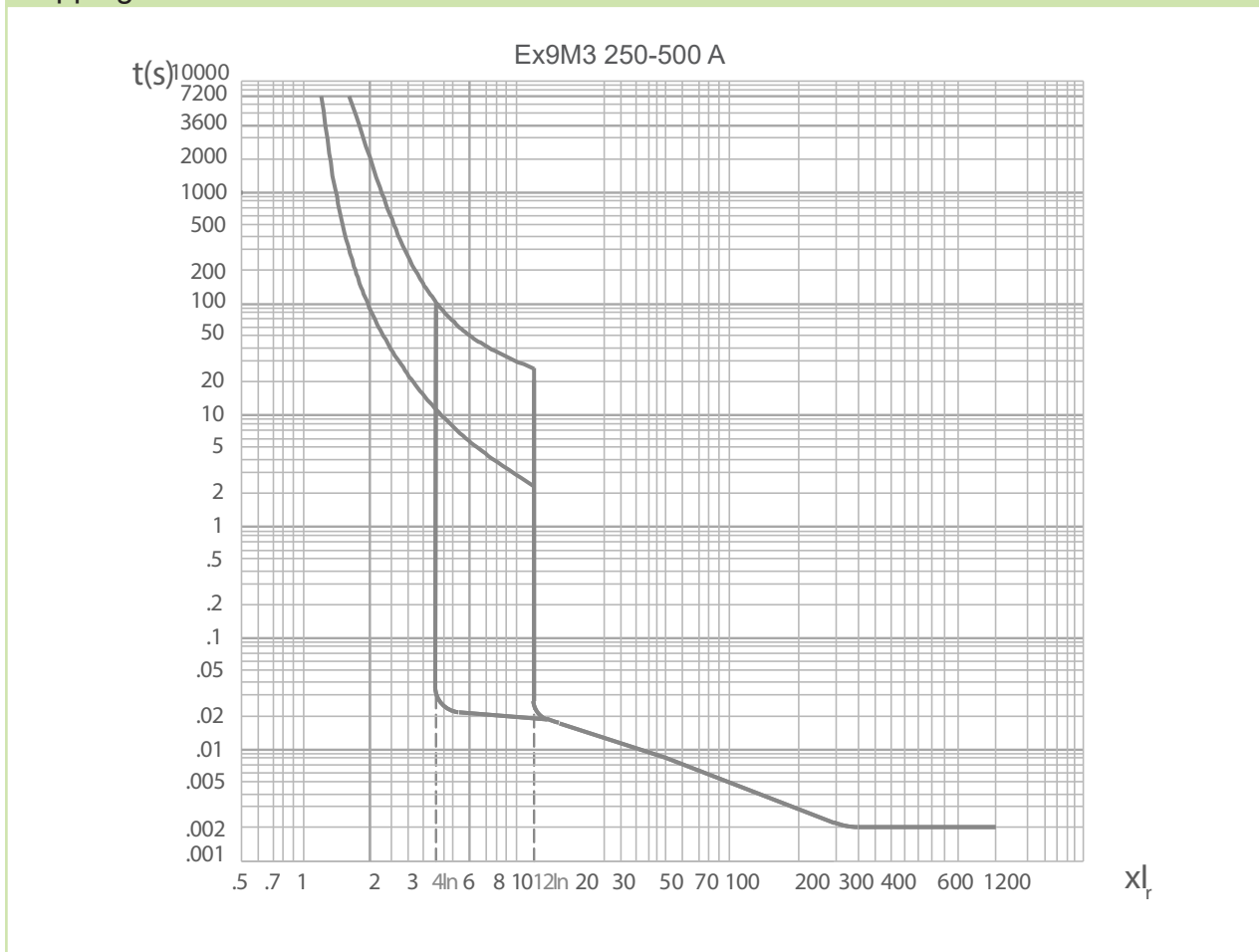
# Technical Data Ex9M3 AC TM

## AC TM Moulded Case Circuit Breakers up to 500 A

### Installation space



### 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  $(0.7 — 1.0) \times I_n$

$I_i$  can be set in range  $(5 — 10) \times I_n$

$I_{IN} = I_i$

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<br>12 kA / 690 V                                         | 50 kA / 415 V<br>15 kA / 690 V | 70 kA / 415 V<br>15 kA / 690 V | 100 kA / 415 V<br>20 kA / 690 V | 150 kA / 415 V<br>30 kA / 690 V |
| Rated service short-circuit breaking capacity $I_{cs}$  | 36 kA / 415 V<br>12 kA / 690 V                                         | 50 kA / 415 V<br>15 kA / 690 V | 70 kA / 415 V<br>15 kA / 690 V | 100 kA / 415 V<br>15 kA / 690 V | 150 kA / 415 V<br>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<br>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<br>[°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

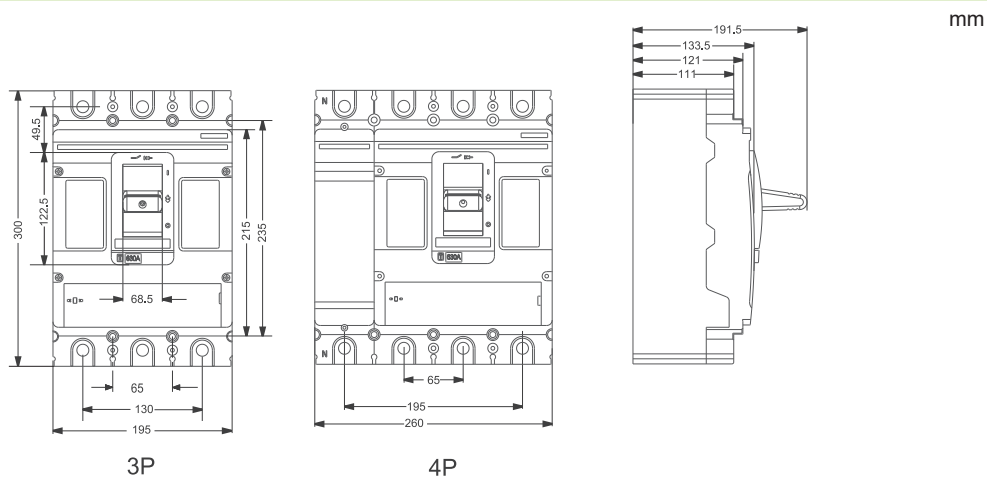
### Mechanical parameters

|                               |                                              |
|-------------------------------|----------------------------------------------|
| 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 |

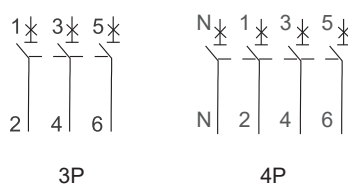
### Derating coefficient of technical parameters based on altitude

| Altitude                                  | ≤ 2 000 m | 3 000 m   | 4 000 m   | 5 000 m   |
|-------------------------------------------|-----------|-----------|-----------|-----------|
| Derating 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



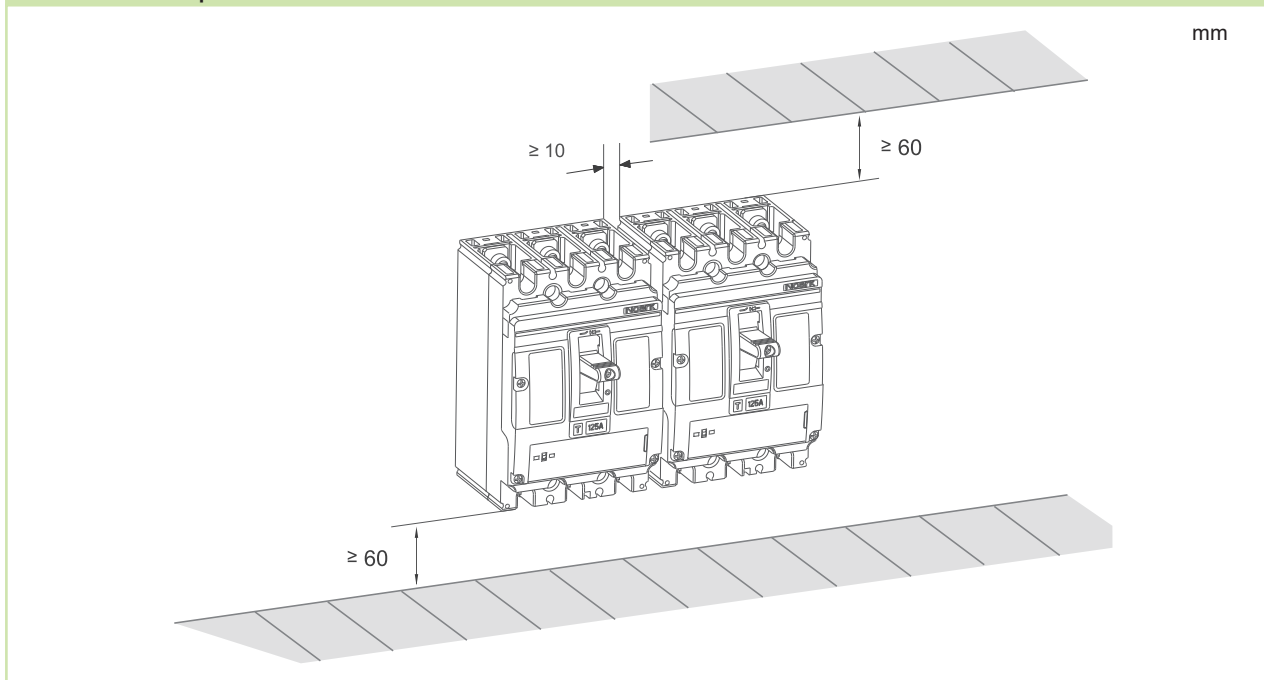
### Wiring diagram



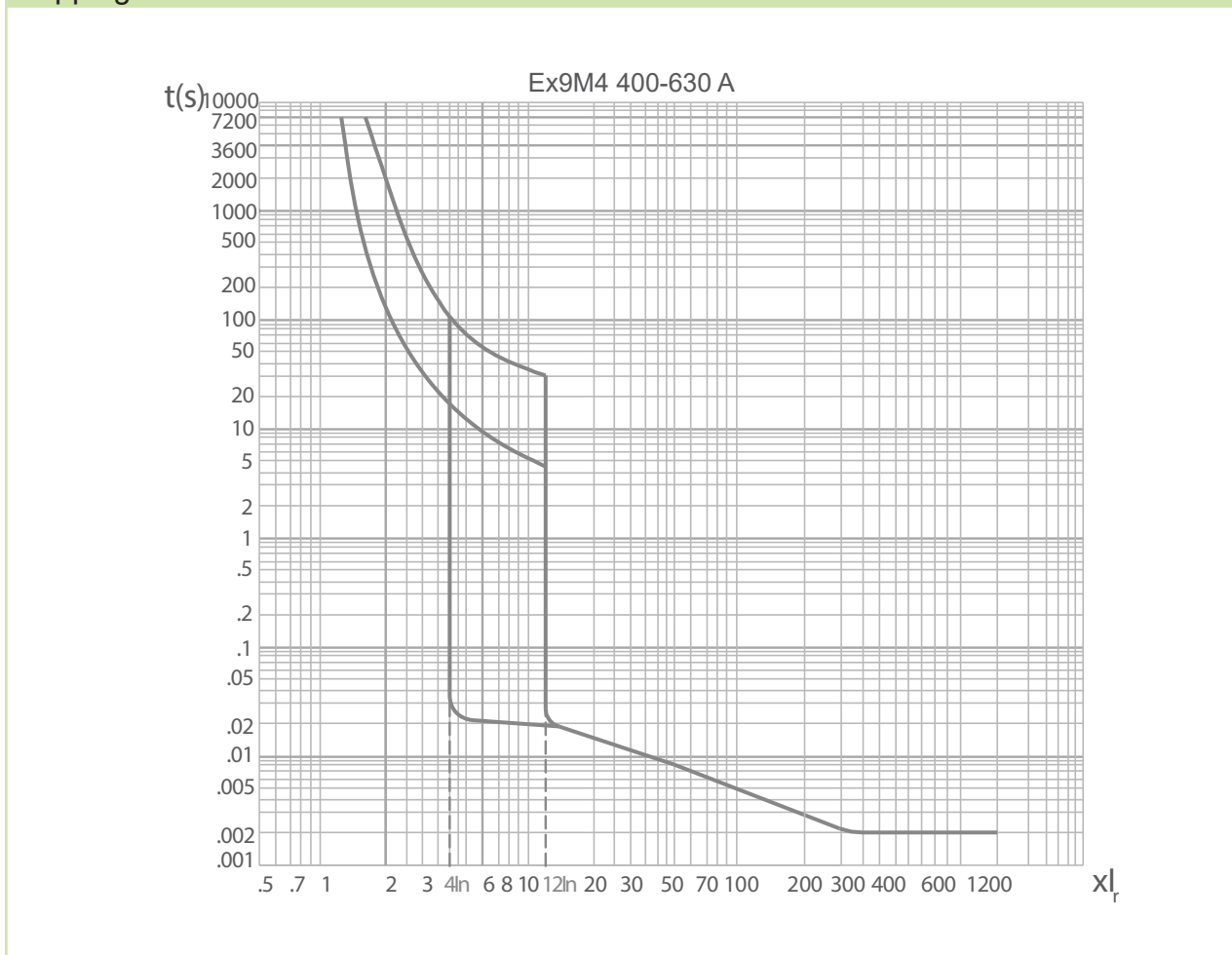
# Technical Data Ex9M4 AC TM

## AC TM Moulded Case Circuit Breakers up to 630 A

### Installation space



### 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  $(0.7 — 1.0) \times I_n$

$I_i$  can be set in range  $(5 — 10) \times I_n$

$I_{IN} = I_i$

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<br>12 kA / 690 V                                         | 50 kA / 415 V<br>15 kA / 690 V | 70 kA / 415 V<br>15 kA / 690 V | 100 kA / 415 V<br>20 kA / 690 V | 150 kA / 415 V<br>30 kA / 690 V |
| Rated service short-circuit breaking capacity $I_{cs}$  | 36 kA / 415 V<br>12 kA / 690 V                                         | 50 kA / 415 V<br>15 kA / 690 V | 70 kA / 415 V<br>15 kA / 690 V | 100 kA / 415 V<br>15 kA / 690 V | 150 kA / 415 V<br>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<br>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<br>[°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

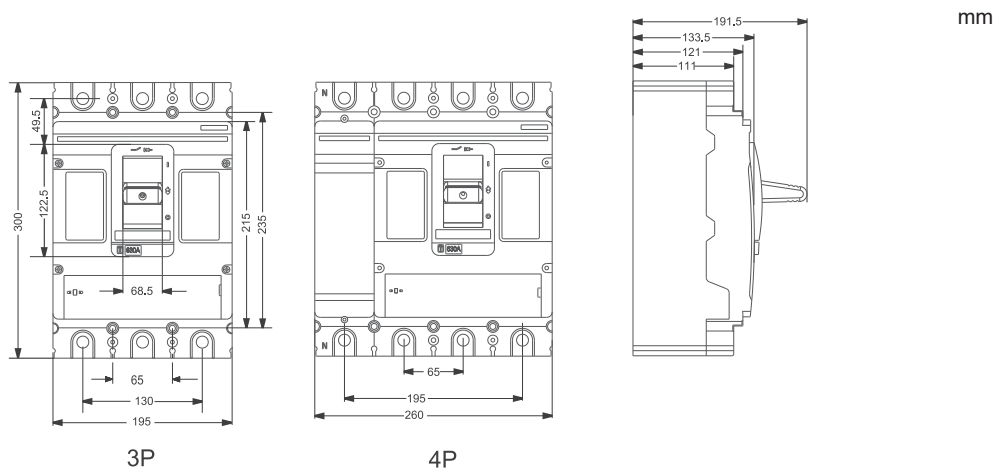
### Mechanical parameters

|                               |                                              |
|-------------------------------|----------------------------------------------|
| 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 |

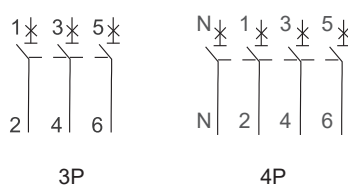
### Derating coefficient of technical parameters based on altitude

| Altitude                                  | ≤ 2 000 m | 3 000 m   | 4 000 m   | 5 000 m   |
|-------------------------------------------|-----------|-----------|-----------|-----------|
| Derating 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



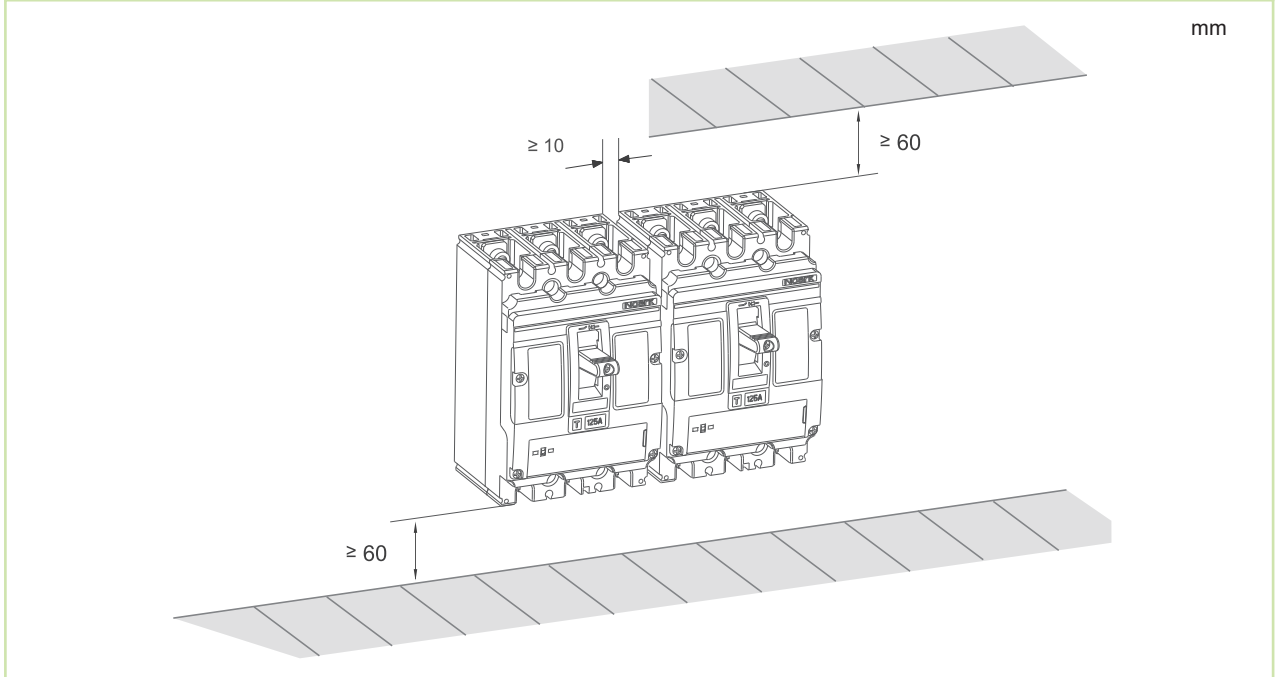
### Wiring diagram



# Technical Data Ex9M5 AC TM

## AC TM Moulded Case Circuit Breakers up to 800 A

### Installation space



### Tripping characteristics

