

# Electronic MCCBs Ex9M6 MOD



- Motor operated electronic Moulded Case Circuit Breakers
- Frame sizes M6
- Rated current up to 1600 A
- 3 and 4-pole versions
- Rated ultimate short circuit breaking capacity  $I_{cu}$  up to 100 kA
- Rated voltage 415 / 690 V AC
- Electronic release

Motor operated Electronic Moulded Case Circuit Breakers Ex9M6 MOD are intended for applications mainly in power distribution. Advantage of the electronic release is in an accuracy and reliability of the tripping contrary to the thermomagnetic release, as well as the remote control of the device. Testing according to IEC / EN 60947-2 standards ensures functions and reliability for wide variety of applications including isolation.

These breakers are offered with breaking capacities from 50 kA up to 100 kA. Rated impulse withstand voltage  $U_{imp}$  8 kV makes it possible to use them even in system with occurrences of transient overvoltage waves of high intensity, e.g. in heavy industry. This device is having a premounted closing release XF to allow the easy remote operation of the breaker.

Utilization category B circuit breakers.

## Type Key

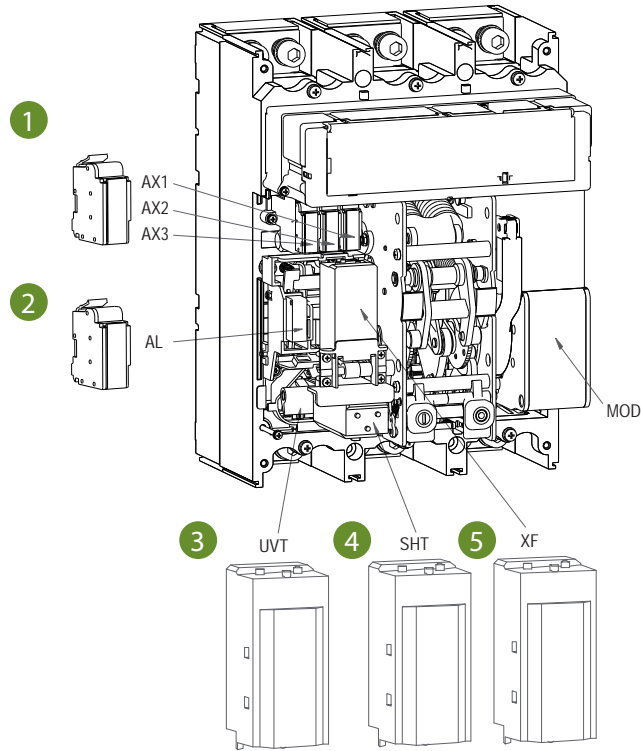
Ex9	M	6	N	SU20L	1000	3P	MOD	AC230
Product family	Product	Frame size	Breaking capacity	Tripping unit	Rated current	Poles	Type	Motor voltage
Ex9	M: MCCB	6: to 1600 A	N: 50 kA Q: 70 kA H: 100 kA	SU20L: DIP switch version	800 A 1000 A 1250 A 1600 A	3P: 3-pole 4P: 4-pole with protected N-pole	Motor operated version	AC: 230, 400 DC: 110, 220

## Certification marks



# Electronic MCCBs Ex9M6 MOD

## Internal accessories



1

Auxiliary contact  
**AX21**  
up to 3 units

2

Signal contact  
**AL21**  
up to 1 unit

3

Undervoltage release  
**UVT26**  
1 unit or SHT26

4

Shunt trip release  
**SHT26**  
1 unit or UVT26

5

Closing release  
**XF26**

Auxiliary contact AX21

Signal contact AL21

Shunt trip releases SHT26

Undervoltage releases UVT26

Closing releases XF26

# Electronic MCCBs Ex9M6 MOD

## External accessories



Front connection  
plate  
**JP26**

Front connection plate JP26

# Electronic MCCBs Ex9M6 MOD

## Version Ex9M6N MOD AC230V up to 1600 A, $I_{cu} = 50$ kA

- 3 and 4-pole Electronic Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 50$  kA at 415 V AC
- $I_r$  can be set in steps (0.4-0.5-0.6-0.7-0.8-0.9-0.95-1.0)  $\times I_n$
- $I_i$  can be set in steps (2-3-4-6-8-10-12)  $\times I_n$
- Mounting screws and phase barriers in the scope of delivery
- 2x AX, 1x AL, 1x SHT26, 1x XF26 with same operative voltage are pre-mounted (customizable under request)



Poles	Rated current $I_n$	Overcurrent release $I_r$	Instant. release $I_i$	Article No.	Type	Packing
3	800 A	320—800 A	1600—9600 A	110364	Ex9M6N SU20L 800 3P MOD AC230	1/1
3	1000 A	400—1000 A	2000—12000 A	110365	Ex9M6N SU20L 1000 3P MOD AC230	1/1
3	1250 A	500—1250 A	2500—15000 A	110366	Ex9M6N SU20L 1250 3P MOD AC230	1/1
3	1600 A	640—1600 A	3200—19200 A	110367	Ex9M6N SU20L 1600 3P MOD AC230	1/1
4	800 A	320—800 A	1600—9600 A	110368	Ex9M6N SU20L 800 4P MOD AC230	1/1
4	1000 A	400—1000 A	2000—12000 A	110369	Ex9M6N SU20L 1000 4P MOD AC230	1/1
4	1250 A	500—1250 A	2500—15000 A	110370	Ex9M6N SU20L 1250 4P MOD AC230	1/1
4	1600 A	640—1600 A	3200—19200 A	110371	Ex9M6N SU20L 1600 4P MOD AC230	1/1

## Version Ex9M6N MOD AC400V up to 1600 A, $I_{cu} = 50$ kA

- 3 and 4-pole Electronic Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 50$  kA at 415 V AC
- $I_r$  can be set in steps (0.4-0.5-0.6-0.7-0.8-0.9-0.95-1.0)  $\times I_n$
- $I_i$  can be set in steps (2-3-4-6-8-10-12)  $\times I_n$
- Mounting screws and phase barriers in the scope of delivery
- 2x AX, 1x AL, 1x SHT26, 1x XF26 with same operative voltage are pre-mounted (customizable under request)



Poles	Rated current $I_n$	Overcurrent release $I_r$	Instant. release $I_i$	Article No.	Type	Packing
3	800 A	320—800 A	1600—9600 A	110372	Ex9M6N SU20L 800 3P MOD AC400	1/1
3	1000 A	400—1000 A	2000—12000 A	110373	Ex9M6N SU20L 1000 3P MOD AC400	1/1
3	1250 A	500—1250 A	2500—15000 A	110374	Ex9M6N SU20L 1250 3P MOD AC400	1/1
3	1600 A	640—1600 A	3200—19200 A	110375	Ex9M6N SU20L 1600 3P MOD AC400	1/1
4	800 A	320—800 A	1600—9600 A	110376	Ex9M6N SU20L 800 4P MOD AC400	1/1
4	1000 A	400—1000 A	2000—12000 A	110377	Ex9M6N SU20L 1000 4P MOD AC400	1/1
4	1250 A	500—1250 A	2500—15000 A	110378	Ex9M6N SU20L 1250 4P MOD AC400	1/1
4	1600 A	640—1600 A	3200—19200 A	110379	Ex9M6N SU20L 1600 4P MOD AC400	1/1

# Electronic MCCBs Ex9M6 MOD

## Version Ex9M6N MOD DC110V up to 1600 A, $I_{cu} = 50$ kA

- 3 and 4-pole Electronic Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 50$  kA at 415 V AC
- $I_r$  can be set in steps (0.4-0.5-0.6-0.7-0.8-0.9-0.95-1.0)  $\times I_n$
- $I_i$  can be set in steps (2-3-4-6-8-10-12)  $\times I_n$
- Mounting screws and phase barriers in the scope of delivery
- 2x AX, 1x AL, 1x SHT26, 1x XF26 with same operative voltage are pre-mounted (customizable under request)



Poles	Rated current $I_n$	Overcurrent release $I_r$	Instant. release $I_i$	Article No.	Type	Packing
3	800 A	320—800 A	1600—9600 A	110380	Ex9M6N SU20L 800 3P MOD DC110	1/1
3	1000 A	400—1000 A	2000—12000 A	110381	Ex9M6N SU20L 1000 3P MOD DC110	1/1
3	1250 A	500—1250 A	2500—15000 A	110382	Ex9M6N SU20L 1250 3P MOD DC110	1/1
3	1600 A	640—1600 A	3200—19200 A	110383	Ex9M6N SU20L 1600 3P MOD DC110	1/1
4	800 A	320—800 A	1600—9600 A	110384	Ex9M6N SU20L 800 4P MOD DC110	1/1
4	1000 A	400—1000 A	2000—12000 A	110385	Ex9M6N SU20L 1000 4P MOD DC110	1/1
4	1250 A	500—1250 A	2500—15000 A	110386	Ex9M6N SU20L 1250 4P MOD DC110	1/1
4	1600 A	640—1600 A	3200—19200 A	110387	Ex9M6N SU20L 1600 4P MOD DC110	1/1

## Version Ex9M6N MOD DC220V up to 1600 A, $I_{cu} = 50$ kA

- 3 and 4-pole Electronic Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 50$  kA at 415 V AC
- $I_r$  can be set in steps (0.4-0.5-0.6-0.7-0.8-0.9-0.95-1.0)  $\times I_n$
- $I_i$  can be set in steps (2-3-4-6-8-10-12)  $\times I_n$
- Mounting screws and phase barriers in the scope of delivery
- 2x AX, 1x AL, 1x SHT26, 1x XF26 with same operative voltage are pre-mounted (customizable under request)



Poles	Rated current $I_n$	Overcurrent release $I_r$	Instant. release $I_i$	Article No.	Type	Packing
3	800 A	320—800 A	1600—9600 A	110388	Ex9M6N SU20L 800 3P MOD DC220	1/1
3	1000 A	400—1000 A	2000—12000 A	110389	Ex9M6N SU20L 1000 3P MOD DC220	1/1
3	1250 A	500—1250 A	2500—15000 A	110390	Ex9M6N SU20L 1250 3P MOD DC220	1/1
3	1600 A	640—1600 A	3200—19200 A	110391	Ex9M6N SU20L 1600 3P MOD DC220	1/1
4	800 A	320—800 A	1600—9600 A	110392	Ex9M6N SU20L 800 4P MOD DC220	1/1
4	1000 A	400—1000 A	2000—12000 A	110393	Ex9M6N SU20L 1000 4P MOD DC220	1/1
4	1250 A	500—1250 A	2500—15000 A	110394	Ex9M6N SU20L 1250 4P MOD DC220	1/1
4	1600 A	640—1600 A	3200—19200 A	110395	Ex9M6N SU20L 1600 4P MOD DC220	1/1

# Electronic MCCBs Ex9M6 MOD

## Version Ex9M6Q MOD AC230V up to 1600 A, $I_{cu} = 70$ kA

- 3 and 4-pole Electronic Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 70$  kA at 415 V AC
- $I_r$  can be set in steps (0.4-0.5-0.6-0.7-0.8-0.9-0.95-1.0)  $\times I_n$
- $I_i$  can be set in steps (2-3-4-6-8-10-12)  $\times I_n$
- Mounting screws and phase barriers in the scope of delivery
- 2x AX, 1x AL, 1x SHT26, 1x XF26 with same operative voltage are pre-mounted (customizable under request)



Poles	Rated current $I_n$	Overcurrent release $I_r$	Instant. release $I_i$	Article No.	Type	Packing
3	800 A	320—800 A	1600—9600 A	110396	Ex9M6Q SU20L 800 3P MOD AC230	1/1
3	1000 A	400—1000 A	2000—12000 A	110397	Ex9M6Q SU20L 1000 3P MOD AC230	1/1
3	1250 A	500—1250 A	2500—15000 A	110398	Ex9M6Q SU20L 1250 3P MOD AC230	1/1
3	1600 A	640—1600 A	3200—19200 A	110399	Ex9M6Q SU20L 1600 3P MOD AC230	1/1
4	800 A	320—800 A	1600—9600 A	110400	Ex9M6Q SU20L 800 4P MOD AC230	1/1
4	1000 A	400—1000 A	2000—12000 A	110401	Ex9M6Q SU20L 1000 4P MOD AC230	1/1
4	1250 A	500—1250 A	2500—15000 A	110402	Ex9M6Q SU20L 1250 4P MOD AC230	1/1
4	1600 A	640—1600 A	3200—19200 A	110403	Ex9M6Q SU20L 1600 4P MOD AC230	1/1

## Version Ex9M6Q MOD AC400V up to 1600 A, $I_{cu} = 70$ kA

- 3 and 4-pole Electronic Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 70$  kA at 415 V AC
- $I_r$  can be set in steps (0.4-0.5-0.6-0.7-0.8-0.9-0.95-1.0)  $\times I_n$
- $I_i$  can be set in steps (2-3-4-6-8-10-12)  $\times I_n$
- Mounting screws and phase barriers in the scope of delivery
- 2x AX, 1x AL, 1x SHT26, 1x XF26 with same operative voltage are pre-mounted (customizable under request)



Poles	Rated current $I_n$	Overcurrent release $I_r$	Instant. release $I_i$	Article No.	Type	Packing
3	800 A	320—800 A	1600—9600 A	110404	Ex9M6Q SU20L 800 3P MOD AC400	1/1
3	1000 A	400—1000 A	2000—12000 A	110405	Ex9M6Q SU20L 1000 3P MOD AC400	1/1
3	1250 A	500—1250 A	2500—15000 A	110406	Ex9M6Q SU20L 1250 3P MOD AC400	1/1
3	1600 A	640—1600 A	3200—19200 A	110407	Ex9M6Q SU20L 1600 3P MOD AC400	1/1
4	800 A	320—800 A	1600—9600 A	110408	Ex9M6Q SU20L 800 4P MOD AC400	1/1
4	1000 A	400—1000 A	2000—12000 A	110409	Ex9M6Q SU20L 1000 4P MOD AC400	1/1
4	1250 A	500—1250 A	2500—15000 A	110410	Ex9M6Q SU20L 1250 4P MOD AC400	1/1
4	1600 A	640—1600 A	3200—19200 A	110411	Ex9M6Q SU20L 1600 4P MOD AC400	1/1

# Electronic MCCBs Ex9M6 MOD

## Version Ex9M6Q MOD DC110V up to 1600 A, $I_{cu} = 70$ kA

- 3 and 4-pole Electronic Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 70$  kA at 415 V AC
- $I_r$  can be set in steps (0.4-0.5-0.6-0.7-0.8-0.9-0.95-1.0)  $\times I_n$
- $I_i$  can be set in steps (2-3-4-6-8-10-12)  $\times I_n$
- Mounting screws and phase barriers in the scope of delivery
- 2x AX, 1x AL, 1x SHT26, 1x XF26 with same operative voltage are pre-mounted (customizable under request)



Poles	Rated current $I_n$	Overcurrent release $I_r$	Instant. release $I_i$	Article No.	Type	Packing
3	800 A	320—800 A	1600—9600 A	110412	Ex9M6Q SU20L 800 3P MOD DC110	1/1
3	1000 A	400—1000 A	2000—12000 A	110413	Ex9M6Q SU20L 1000 3P MOD DC110	1/1
3	1250 A	500—1250 A	2500—15000 A	110414	Ex9M6Q SU20L 1250 3P MOD DC110	1/1
3	1600 A	640—1600 A	3200—19200 A	110415	Ex9M6Q SU20L 1600 3P MOD DC110	1/1
4	800 A	320—800 A	1600—9600 A	110416	Ex9M6Q SU20L 800 4P MOD DC110	1/1
4	1000 A	400—1000 A	2000—12000 A	110417	Ex9M6Q SU20L 1000 4P MOD DC110	1/1
4	1250 A	500—1250 A	2500—15000 A	110418	Ex9M6Q SU20L 1250 4P MOD DC110	1/1
4	1600 A	640—1600 A	3200—19200 A	110419	Ex9M6Q SU20L 1600 4P MOD DC110	1/1

## Version Ex9M6Q MOD DC220V up to 1600 A, $I_{cu} = 70$ kA

- 3 and 4-pole Electronic Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 70$  kA at 415 V AC
- $I_r$  can be set in steps (0.4-0.5-0.6-0.7-0.8-0.9-0.95-1.0)  $\times I_n$
- $I_i$  can be set in steps (2-3-4-6-8-10-12)  $\times I_n$
- Mounting screws and phase barriers in the scope of delivery
- 2x AX, 1x AL, 1x SHT26, 1x XF26 with same operative voltage are pre-mounted (customizable under request)



Poles	Rated current $I_n$	Overcurrent release $I_r$	Instant. release $I_i$	Article No.	Type	Packing
3	800 A	320—800 A	1600—9600 A	110420	Ex9M6Q SU20L 800 3P MOD DC220	1/1
3	1000 A	400—1000 A	2000—12000 A	110421	Ex9M6Q SU20L 1000 3P MOD DC220	1/1
3	1250 A	500—1250 A	2500—15000 A	110422	Ex9M6Q SU20L 1250 3P MOD DC220	1/1
3	1600 A	640—1600 A	3200—19200 A	110423	Ex9M6Q SU20L 1600 3P MOD DC220	1/1
4	800 A	320—800 A	1600—9600 A	110424	Ex9M6Q SU20L 800 4P MOD DC220	1/1
4	1000 A	400—1000 A	2000—12000 A	110425	Ex9M6Q SU20L 1000 4P MOD DC220	1/1
4	1250 A	500—1250 A	2500—15000 A	110426	Ex9M6Q SU20L 1250 4P MOD DC220	1/1
4	1600 A	640—1600 A	3200—19200 A	110427	Ex9M6Q SU20L 1600 4P MOD DC220	1/1

# Electronic MCCBs Ex9M6 MOD

## Version Ex9M6H MOD AC230V up to 1600 A, $I_{cu} = 100$ kA

- 3 and 4-pole Electronic Moulded Case Circuit Breakers
- $I_{cs} = 70$  kA  $I_{cu} = 100$  kA at 415 V AC
- $I_r$  can be set in steps (0.4-0.5-0.6-0.7-0.8-0.9-0.95-1.0)  $\times I_n$
- $I_i$  can be set in steps (2-3-4-6-8-10-12)  $\times I_n$
- Mounting screws and phase barriers in the scope of delivery
- 2x AX, 1x AL, 1x SHT26, 1x XF26 with same operative voltage are pre-mounted (customizable under request)



Poles	Rated current $I_n$	Overcurrent release $I_r$	Instant. release $I_i$	Article No.	Type	Packing
3	800 A	320—800 A	1600—9600 A	110428	Ex9M6H SU20L 800 3P MOD AC230	1/1
3	1000 A	400—1000 A	2000—12000 A	110429	Ex9M6H SU20L 1000 3P MOD AC230	1/1
3	1250 A	500—1250 A	2500—15000 A	110430	Ex9M6H SU20L 1250 3P MOD AC230	1/1
3	1600 A	640—1600 A	3200—19200 A	110431	Ex9M6H SU20L 1600 3P MOD AC230	1/1
4	800 A	320—800 A	1600—9600 A	110432	Ex9M6H SU20L 800 4P MOD AC230	1/1
4	1000 A	400—1000 A	2000—12000 A	110433	Ex9M6H SU20L 1000 4P MOD AC230	1/1
4	1250 A	500—1250 A	2500—15000 A	110434	Ex9M6H SU20L 1250 4P MOD AC230	1/1
4	1600 A	640—1600 A	3200—19200 A	110435	Ex9M6H SU20L 1600 4P MOD AC230	1/1

## Version Ex9M6H MOD AC400V up to 1600 A, $I_{cu} = 100$ kA

- 3 and 4-pole Electronic Moulded Case Circuit Breakers
- $I_{cs} = 70$  kA  $I_{cu} = 100$  kA at 415 V AC
- $I_r$  can be set in steps (0.4-0.5-0.6-0.7-0.8-0.9-0.95-1.0)  $\times I_n$
- $I_i$  can be set in steps (2-3-4-6-8-10-12)  $\times I_n$
- Mounting screws and phase barriers in the scope of delivery
- 2x AX, 1x AL, 1x SHT26, 1x XF26 with same operative voltage are pre-mounted (customizable under request)



Poles	Rated current $I_n$	Overcurrent release $I_r$	Instant. release $I_i$	Article No.	Type	Packing
3	800 A	320—800 A	1600—9600 A	110436	Ex9M6H SU20L 800 3P MOD AC400	1/1
3	1000 A	400—1000 A	2000—12000 A	110437	Ex9M6H SU20L 1000 3P MOD AC400	1/1
3	1250 A	500—1250 A	2500—15000 A	110438	Ex9M6H SU20L 1250 3P MOD AC400	1/1
3	1600 A	640—1600 A	3200—19200 A	110439	Ex9M6H SU20L 1600 3P MOD AC400	1/1
4	800 A	320—800 A	1600—9600 A	110440	Ex9M6H SU20L 800 4P MOD AC400	1/1
4	1000 A	400—1000 A	2000—12000 A	110441	Ex9M6H SU20L 1000 4P MOD AC400	1/1
4	1250 A	500—1250 A	2500—15000 A	110442	Ex9M6H SU20L 1250 4P MOD AC400	1/1
4	1600 A	640—1600 A	3200—19200 A	110443	Ex9M6H SU20L 1600 4P MOD AC400	1/1



# Electronic MCCBs Ex9M6 MOD

## Version Ex9M6H MOD DC110V up to 1600 A, $I_{cu} = 100$ kA

- 3 and 4-pole Electronic Moulded Case Circuit Breakers
- $I_{cs} = 70$  kA  $I_{cu} = 100$  kA at 415 V AC
- $I_r$  can be set in steps (0.4-0.5-0.6-0.7-0.8-0.9-0.95-1.0)  $\times I_n$
- $I_i$  can be set in steps (2-3-4-6-8-10-12)  $\times I_n$
- Mounting screws and phase barriers in the scope of delivery
- 2x AX, 1x AL, 1x SHT26, 1x XF26 with same operative voltage are pre-mounted (customizable under request)



Poles	Rated current $I_n$	Overcurrent release $I_r$	Instant. release $I_i$	Article No.	Type	Packing
3	800 A	320—800 A	1600—9600 A	110444	Ex9M6H SU20L 800 3P MOD DC110	1/1
3	1000 A	400—1000 A	2000—12000 A	110445	Ex9M6H SU20L 1000 3P MOD DC110	1/1
3	1250 A	500—1250 A	2500—15000 A	110446	Ex9M6H SU20L 1250 3P MOD DC110	1/1
3	1600 A	640—1600 A	3200—19200 A	110447	Ex9M6H SU20L 1600 3P MOD DC110	1/1
4	800 A	320—800 A	1600—9600 A	110448	Ex9M6H SU20L 800 4P MOD DC110	1/1
4	1000 A	400—1000 A	2000—12000 A	110449	Ex9M6H SU20L 1000 4P MOD DC110	1/1
4	1250 A	500—1250 A	2500—15000 A	110450	Ex9M6H SU20L 1250 4P MOD DC110	1/1
4	1600 A	640—1600 A	3200—19200 A	110451	Ex9M6H SU20L 1600 4P MOD DC110	1/1

## Version Ex9M6H MOD DC220V up to 1600 A, $I_{cu} = 100$ kA

- 3 and 4-pole Electronic Moulded Case Circuit Breakers
- $I_{cs} = 70$  kA  $I_{cu} = 100$  kA at 415 V AC
- $I_r$  can be set in steps (0.4-0.5-0.6-0.7-0.8-0.9-0.95-1.0)  $\times I_n$
- $I_i$  can be set in steps (2-3-4-6-8-10-12)  $\times I_n$
- Mounting screws and phase barriers in the scope of delivery
- 2x AX, 1x AL, 1x SHT26, 1x XF26 with same operative voltage are pre-mounted (customizable under request)



Poles	Rated current $I_n$	Overcurrent release $I_r$	Instant. release $I_i$	Article No.	Type	Packing
3	800 A	320—800 A	1600—9600 A	110452	Ex9M6H SU20L 800 3P MOD DC220	1/1
3	1000 A	400—1000 A	2000—12000 A	110453	Ex9M6H SU20L 1000 3P MOD DC220	1/1
3	1250 A	500—1250 A	2500—15000 A	110454	Ex9M6H SU20L 1250 3P MOD DC220	1/1
3	1600 A	640—1600 A	3200—19200 A	110455	Ex9M6H SU20L 1600 3P MOD DC220	1/1
4	800 A	320—800 A	1600—9600 A	110456	Ex9M6H SU20L 800 4P MOD DC220	1/1
4	1000 A	400—1000 A	2000—12000 A	110457	Ex9M6H SU20L 1000 4P MOD DC220	1/1
4	1250 A	500—1250 A	2500—15000 A	110458	Ex9M6H SU20L 1250 4P MOD DC220	1/1
4	1600 A	640—1600 A	3200—19200 A	110459	Ex9M6H SU20L 1600 4P MOD DC220	1/1

# Technical Data Ex9M6 MOD

## Motor operated electronic MCCBs up to 1600 A

### Remote motor operator MOD (MOD version only)

#### General parameters

The electric motor charges the spring mechanism when the circuit breaker is closed

The electric motor MOD is equipped with a limit switch which signals the "charged" position of the mechanism (spring is charged)

The spring-mechanism charging handle can be used when maintaining or without power supply

#### Electrical parameters

Operating voltage $U_e$	230 V AC 400 V AC 110 V DC 220 V DC
Operating frequency	1 operating cycle in 3 minutes
Operating threshold	85 - 110% $U_e$
Power consumption AC DC	40 VA 40 W
Charging time	$\leq 4$ s
Insulation voltage	400 V
Peak current	$6 \times I_n$

# Technical Data Ex9M6 MOD

## Motor operated electronic MCCBs up to 1600 A

### Closing releases XF (MOD version only)

#### General parameters

Remotely close the breaker after the spring has stored energy

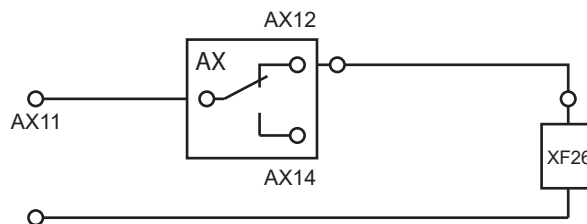
Operating voltage range 85 - 110% of nominal value  $U_e$ . Maximum allowed control command length 2 s (can be blocked e.g. by means of NC auxiliary contact, see below)

#### Electrical parameters

Operating voltage $U_e$	230 V AC 400 V AC 110 V DC 220 V DC
Operating threshold	85 - 110% $U_e$
Minimum duration of control impuls	0.2 s
Max. allowed duration of control impuls	2 s
Pick-up power time 100ms AC DC	200 VA 200 W
Power consumption AC DC	5 VA 5 W
Circuit breaker closing time	$\leq 50$ ms
Breaking time	$30 \pm 10$ ms
Insulation voltage	400 V
Peak current	$6 \times I_n$

#### Connection diagram for long control signals

In case external control circuit cannot assure not-exceeding of max. impuls duration, AX contact of NC configuration can be used for limiting (direct connection with XF 230 or 400 V AC, signal to advanced control system in case of use of SHT for DC control voltages due to maximum allowed current of AX).



# Technical Data Ex9M6 MOD

## Motor operated electronic MCCBs up to 1600 A

### General parameters

Suitable for household as well as industrial applications

Thermal release adjustable  $I_r = (0.4-0.5-0.6-0.7-0.8-0.8-0.9-0.95-1) \times I_n$

Instantaneous short-circuit current release adjustable  $I_i = (2-3-4-6-8-10-12) \times I_n$

Internal accessories

Auxiliary contact unit	AX21	101395
Alarm contact unit	AL21	101396
Shunt trip releases	SHT26	110460-110467
Undervoltage releases	UVT26	110468-110469

Max. number of installed internal accessories is 2 pcs of AX21, 1 pc of AL21, 1 piece of XF26 and 1 pc of a release (SHT26 or UVT26)

2x AX, 1x AL, 1x SHT26, 1x XF26 with same operative voltage are pre-mounted (customizable under request)

External accessories

Front connection panel	JP26	110694-110697
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Mounting screws and phase barriers in the scope of delivery

### Electrical parameters

	Ex9M6N	Ex9M6Q	Ex9M6H
Tested according to	IEC/EN 60947-2		
Rated op. voltage $U_e$	415 / 690 V AC		
Rated insulation voltage $U_i$	1000 V		
Rated impulse withstand voltage $U_{imp}$	8 kV		
Rated frequency	50/60 Hz		
Rated ultimate short-circuit breaking capacity $I_{cu}$	50 kA / 415 V 30 kA / 690 V	70 kA / 415 V 30 kA / 690 V	100 kA / 415 V 30 kA / 690 V
Rated service short-circuit breaking capacity $I_{cs}$	50 kA / 415 V 30 kA / 690 V	70 kA / 415 V 30 kA / 690 V	70 kA / 415 V 30 kA / 690 V
Rated short-circuit making capacity $I_{cm}$	105 kA / 415 V 63 kA / 690 V	154 kA / 415 V 63 kA / 690 V	220 kA / 415 V 63 kA / 690 V
Rated short time (1s) withstand current $I_{cw}$	20 kA		
Rated current	800 — 1600 A		
Overvoltage category	III		
Utilization category	B		
Mechanical service life	6 000 operation cycles		
Electrical service life	1 000 operation cycles		
Recommended frequency of switch. cycles	20 operating cycles per hour		
Maximum frequency of switch. cycles	60 operating cycles per hour		
Total disconnection time at short circuit	< 10 ms		
Internal resistance per pole at 1600 A	0.05 mΩ		
Power loss per pole at 1600 A	128 W		
Line voltage connection	line voltage on top, load on bottom		

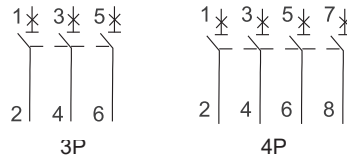
# Technical Data Ex9M6 MOD

## Motor operated electronic MCCBs up to 1600 A

### Mechanical parameters

Device width 3P / 4P	210 mm / 280 mm
Device height	286 mm
Device depth	198 mm
Mounting	onto panel
Degree of protection	IP20
Terminals	M10 screws
Bushbar width	≤ 50 mm
Fastening torque of terminals	25 — 30 Nm
Operating temperature	-25 — +70 °C
Altitude	≤ 2 000 m
Relative humidity	≤ 50 % at 40 °C, ≤ 90 % monthly average
Pollution degree	3
Weight 3P / 4P	16 / 20 kg
Mounting position	vertical, can be rotated by 90° in each axis

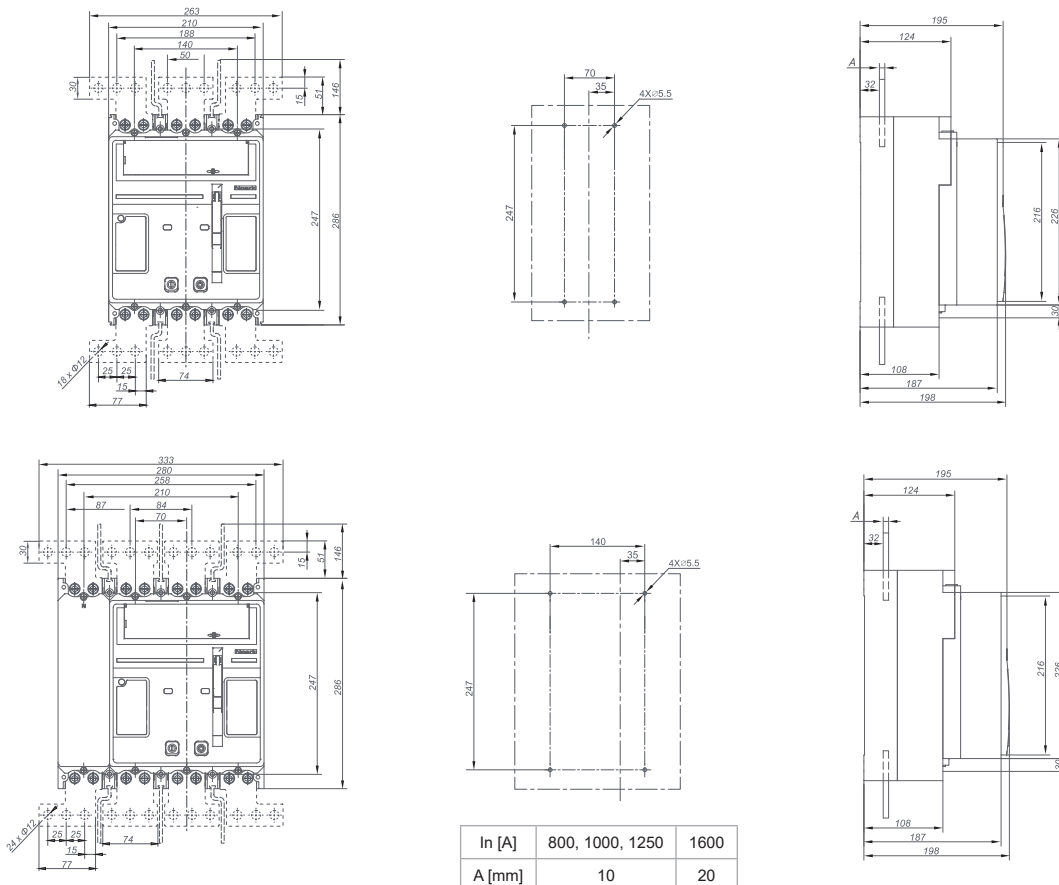
### Wiring diagram



### Dimensions

3P

4P

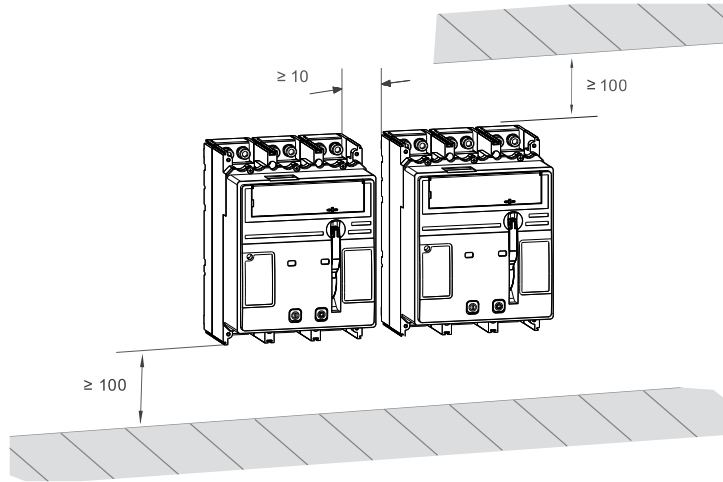


In [A]	800, 1000, 1250	1600
A [mm]	10	20

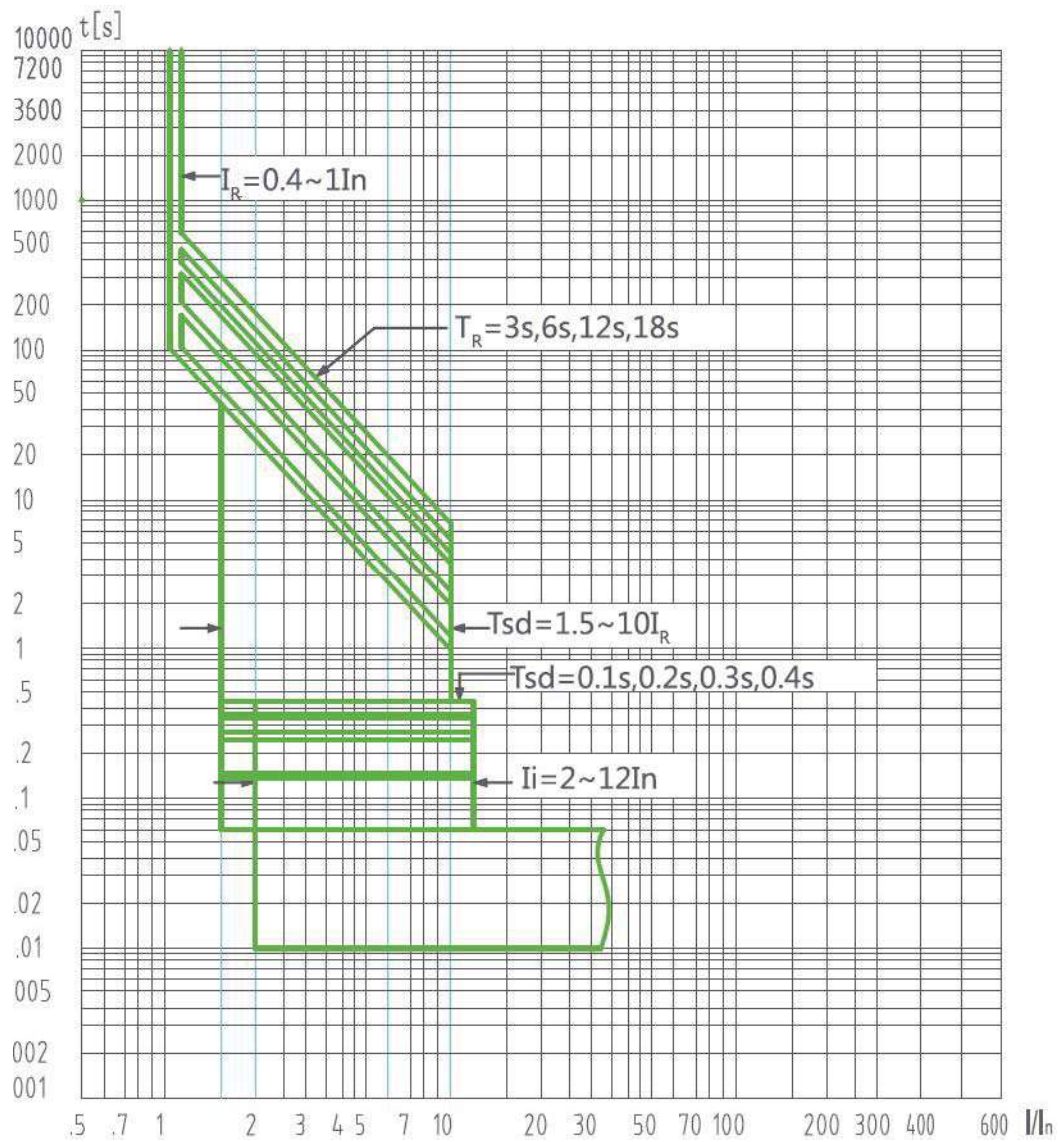
# Technical Data Ex9M6 MOD

Motor operated electronic MCCBs up to 1600 A

## Installation space



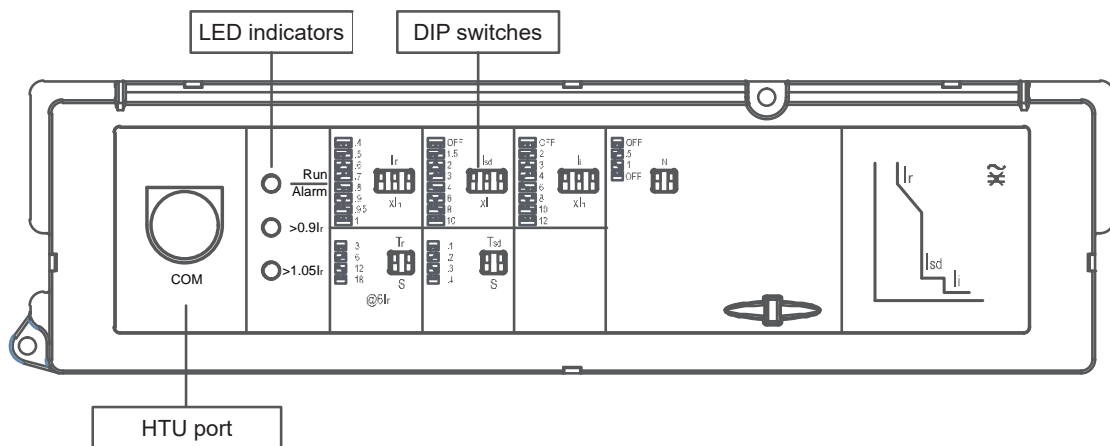
## Tripping characteristics



# Technical Data Ex9M6 MOD

Motor operated electronic MCCBs up to 1600 A

## Control panel



For configuring the operation panel please check the manual of the Electronic tripping unit. The manual can be found at: [www.noark-electric.eu](http://www.noark-electric.eu)