

Moulded Case Circuit Breakers **Ex9M SU20S**



- LCD display version
- SU20S Standard type smart unit controller
- Frame sizes M2-M6
- Rated operating current up to 1600 A
- 3 and 4-pole versions
- Rated ultimate short circuit breaking capacity $I_{cu} = I_{cs}$ up to 150 kA,
- Rated voltage 415 / 690 V AC
- High tripping accuracy, reliable operation, less sensibility to ambient temperature

Moulded Case Circuit Breakers Ex9M with SU20S type of smart unit 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.

The electronic controller with LCD display allows a detailed and accurate commission of the device for the installation requirements. Electronic technology improves the stability of the device on applications with significant mechanical stress.

These breakers are offered with breaking capacities from 36 kA up to extreme 150 kA. Rated impulse withstand voltage U_{imp} up to 12 kV makes it possible to use them even in system with occurrences of transient over-voltage waves of high intensity, e.g. in heavy industry.

Utilization category A and B circuit breakers.

Type Key

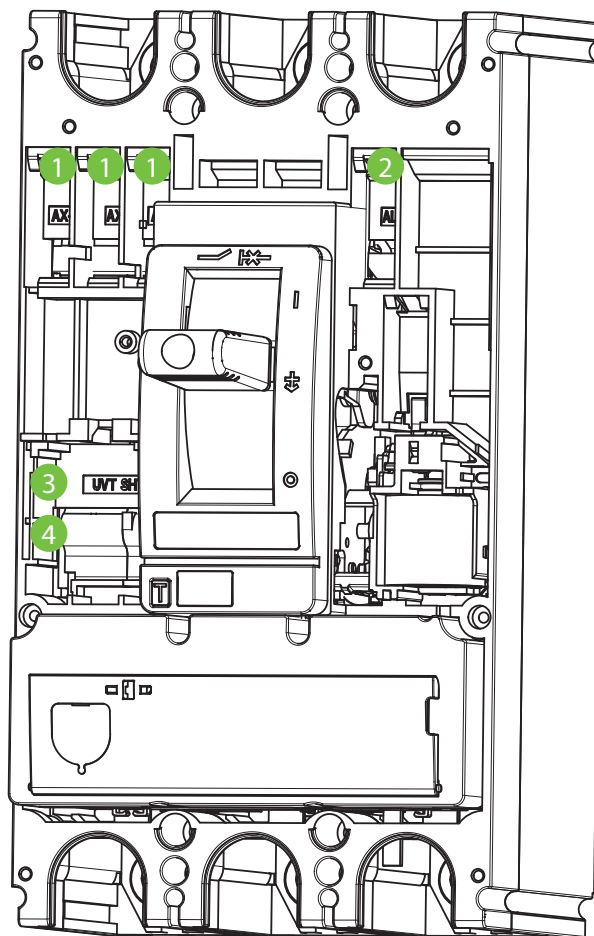
Ex9M	2	S	SU20S	250	3P	-	-
Product family	Frame size	Breaking capacity	Release technology	Rated current	Poles	Mechanism	MOD voltage
Ex9M	2: to 250 A 3: to 400 A / 630 A 4: to 630 A 5: to 800 A 6: to 1600 A	S: 36 kA N: 50 kA Q: 70 kA H: 100 kA P: 150 kA	SU20S: standard type electronic power distribution unit	M2: 250 A M3: 630 A M4: 630 A M5: 800 A M6: 1600 A	3P: 3-pole 4P4T: 4-pole with protected N-pole	_ : Manual type MOD: Motor operated (M6)	_ : Manual type AC 230 V AC 400 V DC 24 V DC 110 V DC 220 V

Certification marks



Moulded Case Circuit Breakers **Ex9M SU20S**

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 SU20S**

External accessories Ex9M2-M5 SU20S



Phase barriers
PHS2i



Terminal cover, short
TCV2i



Terminal cover, long
TCE2i



Remote operator
MOD2i



Direct rotary handle
RHD2i



Extended rotary handle
ERH2i

Phase barriers PHS2i

Terminal cover, short TCV2i

Terminal cover, long TCE2i

Remote operators MOD2i

Direct rotary handles RHD2i

Extended rotary handles ERH2i

Moulded Case Circuit Breakers **Ex9M SU20S**

External accessories Ex9M2-M5 SU20S



Tunnel terminals
MC2i W



Mounting depth spacers
WG i



Box terminals
MC2i



Screw terminals
MCS2i



Din rail adapter
DRA2i

Tunnel terminals MC2i W

Mounting depth spacers WG i

Box terminals MC2i

Screw terminals MCS2i

Din rail DRA2i

Moulded Case Circuit Breakers **Ex9M SU20S**

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

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 36 \text{ kA}$ at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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
3	32A	13-32 A	48-384 A	111277	Ex9M2S SU20S 32 3P	1/8
3	63A	25-63 A	95-756 A	111278	Ex9M2S SU20S 63 3P	1/8
3	100A	40-100 A	150-1200 A	111279	Ex9M2S SU20S 100 3P	1/8
3	160A	64-160 A	240-1920 A	111280	Ex9M2S SU20S 160 3P	1/8
3	250A	100-250 A	375-3000 A	111281	Ex9M2S SU20S 250 3P	1/8
4	32A	13-32 A	48-384 A	111282	Ex9M2S SU20S 32 4P4T	1/8
4	63A	25-63 A	95-756 A	111283	Ex9M2S SU20S 63 4P4T	1/8
4	100A	40-100 A	150-1200 A	111284	Ex9M2S SU20S 100 4P4T	1/8
4	160A	64-160 A	240-1920 A	111285	Ex9M2S SU20S 160 4P4T	1/8
4	250A	100-250 A	375-3000 A	111286	Ex9M2S SU20S 250 4P4T	1/8

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

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 50 \text{ kA}$ at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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
3	32A	13-32 A	48-384 A	111287	Ex9M2N SU20S 32 3P	1/8
3	63A	25-63 A	95-756 A	111288	Ex9M2N SU20S 63 3P	1/8
3	100A	40-100 A	150-1200 A	111289	Ex9M2N SU20S 100 3P	1/8
3	160A	64-160 A	240-1920 A	111290	Ex9M2N SU20S 160 3P	1/8
3	250A	100-250 A	375-3000 A	111291	Ex9M2N SU20S 250 3P	1/8
4	32A	13-32 A	48-384 A	111292	Ex9M2N SU20S 32 4P4T	1/8
4	63A	25-63 A	95-756 A	111293	Ex9M2N SU20S 63 4P4T	1/8
4	100A	40-100 A	150-1200 A	111294	Ex9M2N SU20S 100 4P4T	1/8
4	160A	64-160 A	240-1920 A	111295	Ex9M2N SU20S 160 4P4T	1/8
4	250A	100-250 A	375-3000 A	111296	Ex9M2N SU20S 250 4P4T	1/8

Moulded Case Circuit Breakers **Ex9M SU20S**

Version Ex9M2Q up to 250 A, $I_{cu} = 70$ kA

- 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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
3	32A	13-32 A	48-384 A	111297	Ex9M2Q SU20S 32 3P	1/8
3	63A	25-63 A	95-756 A	111298	Ex9M2Q SU20S 63 3P	1/8
3	100A	40-100 A	150-1200 A	111299	Ex9M2Q SU20S 100 3P	1/8
3	160A	64-160 A	240-1920 A	111300	Ex9M2Q SU20S 160 3P	1/8
3	250A	100-250 A	375-3000 A	111301	Ex9M2Q SU20S 250 3P	1/8
4	32A	13-32 A	48-384 A	111302	Ex9M2Q SU20S 32 4P4T	1/8
4	63A	25-63 A	95-756 A	111303	Ex9M2Q SU20S 63 4P4T	1/8
4	100A	40-100 A	150-1200 A	111304	Ex9M2Q SU20S 100 4P4T	1/8
4	160A	64-160 A	240-1920 A	111305	Ex9M2Q SU20S 160 4P4T	1/8
4	250A	100-250 A	375-3000 A	111306	Ex9M2Q SU20S 250 4P4T	1/8

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

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 100$ kA at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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
3	32A	13-32 A	48-384 A	111307	Ex9M2H SU20S 32 3P	1/8
3	63A	25-63 A	95-756 A	111308	Ex9M2H SU20S 63 3P	1/8
3	100A	40-100 A	150-1200 A	111309	Ex9M2H SU20S 100 3P	1/8
3	160A	64-160 A	240-1920 A	111310	Ex9M2H SU20S 160 3P	1/8
3	250A	100-250 A	375-3000 A	111311	Ex9M2H SU20S 250 3P	1/8
4	32A	13-32 A	48-384 A	111312	Ex9M2H SU20S 32 4P4T	1/8
4	63A	25-63 A	95-756 A	111313	Ex9M2H SU20S 63 4P4T	1/8
4	100A	40-100 A	150-1200 A	111314	Ex9M2H SU20S 100 4P4T	1/8
4	160A	64-160 A	240-1920 A	111315	Ex9M2H SU20S 160 4P4T	1/8
4	250A	100-250 A	375-3000 A	111316	Ex9M2H SU20S 250 4P4T	1/8

Moulded Case Circuit Breakers **Ex9M SU20S**

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

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 150$ kA at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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
3	32A	13-32 A	48-384 A	111317	Ex9M2P SU20S 32 3P	1/8
3	63A	25-63 A	95-756 A	111318	Ex9M2P SU20S 63 3P	1/8
3	100A	40-100 A	150-1200 A	111319	Ex9M2P SU20S 100 3P	1/8
3	160A	64-160 A	240-1920 A	111320	Ex9M2P SU20S 160 3P	1/8
3	250A	100-250 A	375-3000 A	111321	Ex9M2P SU20S 250 3P	1/8
4	32A	13-32 A	48-384 A	111322	Ex9M2P SU20S 32 4P4T	1/8
4	63A	25-63 A	95-756 A	111323	Ex9M2P SU20S 63 4P4T	1/8
4	100A	40-100 A	150-1200 A	111324	Ex9M2P SU20S 100 4P4T	1/8
4	160A	64-160 A	240-1920 A	111325	Ex9M2P SU20S 160 4P4T	1/8
4	250A	100-250 A	375-3000 A	111326	Ex9M2P SU20S 250 4P4T	1/8

Moulded Case Circuit Breakers **Ex9M SU20S**

Version Ex9M3S up to 630 A, $I_{cu} = 36 \text{ kA}$

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 36 \text{ kA}$ at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	100-250 A	375-3000 A	111327	Ex9M3S SU20S 250 3P	1/2
3	400 A	160-400 A	600-4800 A	111328	Ex9M3S SU20S 400 3P	1/2
3	630 A	252-630 A	945-7560 A	111329	Ex9M3S SU20S 630 3P	1/2
4	250 A	100-250 A	375-3000 A	111330	Ex9M3S SU20S 250 4P4T	1/2
4	400 A	160-400 A	600-4800 A	111331	Ex9M3S SU20S 400 4P4T	1/2
4	630 A	252-630 A	945-7560 A	111332	Ex9M3S SU20S 630 4P4T	1/2

Version Ex9M3N up to 630 A, $I_{cu} = 50 \text{ kA}$

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 50 \text{ kA}$ at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	100-250 A	375-3000 A	111333	Ex9M3N SU20S 250 3P	1/2
3	400 A	160-400 A	600-4800 A	111334	Ex9M3N SU20S 400 3P	1/2
3	630 A	252-630 A	630-7560 A	111335	Ex9M3N SU20S 630 3P	1/2
4	250 A	100-250 A	375-3000 A	111336	Ex9M3N SU20S 250 4P4T	1/2
4	400 A	160-400 A	600-4800 A	111337	Ex9M3N SU20S 400 4P4T	1/2
4	630 A	252-630 A	630-7560 A	111338	Ex9M3N SU20S 630 4P4T	1/2

Version Ex9M3Q up to 630 A, $I_{cu} = 70 \text{ kA}$

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 70 \text{ kA}$ at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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
3	250 A	100-250 A	375-3000 A	111339	Ex9M3Q SU20S 250 3P	1/2
3	400 A	160-400 A	600-4800 A	111340	Ex9M3Q SU20S 400 3P	1/2
3	630 A	252-630 A	945-7560 A	111341	Ex9M3Q SU20S 630 3P	1/2
4	250 A	100-250 A	375-3000 A	111342	Ex9M3Q SU20S 250 4P4T	1/2
4	400 A	160-400 A	600-4800 A	111343	Ex9M3Q SU20S 400 4P4T	1/2
4	630 A	252-630 A	945-7560 A	111344	Ex9M3Q SU20S 630 4P4T	1/2

Moulded Case Circuit Breakers **Ex9M SU20S**

Version Ex9M3H 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	100-250 A	375-3000 A	111345	Ex9M3H SU20S 250 3P	1/2
3	400 A	160-400 A	600-4800 A	111346	Ex9M3H SU20S 400 3P	1/2
3	630 A	252-630 A	945-7560 A	111347	Ex9M3H SU20S 630 3P	1/2
4	250 A	100-250 A	375-3000 A	111348	Ex9M3H SU20S 250 4P4T	1/2
4	400 A	160-400 A	600-4800 A	111349	Ex9M3H SU20S 400 4P4T	1/2
4	630 A	252-630 A	945-7560 A	111350	Ex9M3H SU20S 630 4P4T	1/2

Version Ex9M3P 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	100-250 A	375-3000 A	111351	Ex9M3P SU20S 250 3P	1/2
3	400 A	160-400 A	600-4800 A	111352	Ex9M3P SU20S 400 3P	1/2
3	630 A	252-630 A	945-7560 A	111353	Ex9M3P SU20S 630 3P	1/2
4	250 A	100-250 A	375-3000 A	111354	Ex9M3P SU20S 250 4P4T	1/2
4	400 A	160-400 A	600-4800 A	111355	Ex9M3P SU20S 400 4P4T	1/2
4	630 A	252-630 A	945-7560 A	111356	Ex9M3P SU20S 630 4P4T	1/2

Moulded Case Circuit Breakers **Ex9M SU20S**

Version Ex9M4S 630 A, $I_{cu} = 36 \text{ kA}$

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 36 \text{ kA}$ at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	252-630 A	945-7560 A	111357	Ex9M4S SU20S 630 3P	1/1
4	630 A	252-630 A	945-7560 A	111358	Ex9M4S SU20S 630 4P4T	1/1

Version Ex9M4N 630 A, $I_{cu} = 50 \text{ kA}$

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 50 \text{ kA}$ at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	252-630 A	945-7560 A	111359	Ex9M4N SU20S 630 3P	1/1
4	630 A	252-630 A	945-7560 A	111360	Ex9M4N SU20S 630 4P4T	1/1

Version Ex9M4Q 630 A, $I_{cu} = 70 \text{ kA}$

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 70 \text{ kA}$ at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	252-630 A	945-7560 A	111361	Ex9M4Q SU20S 630 3P	1/1
4	630 A	252-630 A	945-7560 A	111362	Ex9M4Q SU20S 630 4P4T	1/1

Moulded Case Circuit Breakers **Ex9M SU20S**

Version Ex9M4H 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	252-630 A	945-7560 A	111363	Ex9M4H SU20S 630 3P	1/1
4	630 A	252-630 A	945-7560 A	111364	Ex9M4H SU20S 630 4P4T	1/1

Version Ex9M4P 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	252-630 A	945-7560 A	111365	Ex9M4P SU20S 630 3P	1/1
4	630 A	252-630 A	945-7560 A	111366	Ex9M4P SU20S 630 4P4T	1/1

Moulded Case Circuit Breakers **Ex9M SU20S**

Version Ex9M5S 800 A, $I_{cu} = 36 \text{ kA}$

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 36 \text{ kA}$ at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800A	320-800A	1200-9600A	111367	Ex9M5S SU20S 800 3P	1/1
4	800A	320-800A	1200-9600A	111368	Ex9M5S SU20S 800 4P4T	1/1

Version Ex9M5N 800 A, $I_{cu} = 50 \text{ kA}$

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 50 \text{ kA}$ at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800A	320-800A	1200-9600A	111369	Ex9M5N SU20S 800 3P	1/1
4	800A	320-800A	1200-9600A	111370	Ex9M5N SU20S 800 4P4T	1/1

Version Ex9M5Q 800 A, $I_{cu} = 70 \text{ kA}$

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 70 \text{ kA}$ at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800A	320-800A	1200-9600A	111371	Ex9M5Q SU20S 800 3P	1/1
4	800A	320-800A	1200-9600A	111372	Ex9M5Q SU20S 800 4P4T	1/1

Moulded Case Circuit Breakers **Ex9M SU20S**

Version Ex9M5H 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800A	320-800A	1200-9600A	111373	Ex9M5H SU20S 800 3P	1/1
4	800A	320-800A	1200-9600A	111374	Ex9M5H SU20S 800 4P4T	1/1

Version Ex9M5P 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800A	320-800A	1200-9600A	111375	Ex9M5P SU20S 800 3P	1/1
4	800A	320-800A	1200-9600A	111376	Ex9M5P SU20S 800 4P4T	1/1

Moulded Case Circuit Breakers **Ex9M SU20S**

Version Ex9M6N up to 1600 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800 A	320 - 800A	1200-9600 A	116131	Ex9M6N SU20S 800 3P EU	1/1
3	1000 A	400 - 1000A	1500-12000 A	116132	Ex9M6N SU20S 1000 3P EU	1/1
3	1250 A	500 - 1250A	1875-15000 A	116133	Ex9M6N SU20S 1250 3P EU	1/1
3	1600 A	640 - 1600A	2400-19200 A	116134	Ex9M6N SU20S 1600 3P EU	1/1
4	800 A	320 - 800A	1200-9600 A	116135	Ex9M6N SU20S 800 4P EU	1/1
4	1000 A	400 - 1000A	1500-12000 A	116136	Ex9M6N SU20S 1000 4P EU	1/1
4	1250 A	500 - 1250A	1875-15000 A	116137	Ex9M6N SU20S 1250 4P EU	1/1
4	1600 A	640 - 1600A	2400-19200 A	116138	Ex9M6N SU20S 1600 4P EU	1/1

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

- 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800 A	320 - 800A	1200-9600 A	116139	Ex9M6Q SU20S 800 3P EU	1/1
3	1000 A	400 - 1000A	1500-12000 A	116140	Ex9M6Q SU20S 1000 3P EU	1/1
3	1250 A	500 - 1250A	1875-15000 A	116141	Ex9M6Q SU20S 1250 3P EU	1/1
3	1600 A	640 - 1600A	2400-19200 A	116142	Ex9M6Q SU20S 1600 3P EU	1/1
4	800 A	320 - 800A	1200-9600 A	116143	Ex9M6Q SU20S 800 4P EU	1/1
4	1000 A	400 - 1000A	1500-12000 A	116144	Ex9M6Q SU20S 1000 4P EU	1/1
4	1250 A	500 - 1250A	1875-15000 A	116145	Ex9M6Q SU20S 1250 4P EU	1/1
4	1600 A	640 - 1600A	2400-19200 A	116146	Ex9M6Q SU20S 1600 4P EU	1/1

Version Ex9M6H up to 1600 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800 A	320 - 800A	1200-9600 A	116147	Ex9M6H SU20S 800 3P EU	1/1
3	1000 A	400 - 1000A	1500-12000 A	116148	Ex9M6H SU20S 1000 3P EU	1/1
3	1250 A	500 - 1250A	1875-15000 A	116149	Ex9M6H SU20S 1250 3P EU	1/1
3	1600 A	640 - 1600A	2400-19200 A	116150	Ex9M6H SU20S 1600 3P EU	1/1
4	800 A	320 - 800A	1200-9600 A	116151	Ex9M6H SU20S 800 4P EU	1/1
4	1000 A	400 - 1000A	1500-12000 A	116152	Ex9M6H SU20S 1000 4P EU	1/1
4	1250 A	500 - 1250A	1875-15000 A	116153	Ex9M6H SU20S 1250 4P EU	1/1
4	1600 A	640 - 1600A	2400-19200 A	116154	Ex9M6H SU20S 1600 4P EU	1/1

Moulded Case Circuit Breakers **Ex9M SU20S**

Version Ex9M6N MOD AC230 up to 1600 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800 A	320 - 800A	1200-9600 A	116155	Ex9M6N SU20S 800 3P MOD AC230	1/1
3	1000 A	400 - 1000A	1500-12000 A	116156	Ex9M6N SU20S 1000 3P MOD AC230	1/1
3	1250 A	500 - 1250A	1875-15000 A	116157	Ex9M6N SU20S 1250 3P MOD AC230	1/1
3	1600 A	640 - 1600A	2400-19200 A	116158	Ex9M6N SU20S 1600 3P MOD AC230	1/1
4	800 A	320 - 800A	1200-9600 A	116159	Ex9M6N SU20S 800 4P MOD AC230	1/1
4	1000 A	400 - 1000A	1500-12000 A	116160	Ex9M6N SU20S 1000 4P MOD AC230	1/1
4	1250 A	500 - 1250A	1875-15000 A	116161	Ex9M6N SU20S 1250 4P MOD AC230	1/1
4	1600 A	640 - 1600A	2400-19200 A	116162	Ex9M6N SU20S 1600 4P MOD AC230	1/1

Version Ex9M6N MOD AC400 up to 1600 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800 A	320 - 800A	1200-9600 A	116163	Ex9M6N SU20S 800 3P MOD AC400	1/1
3	1000 A	400 - 1000A	1500-12000 A	116164	Ex9M6N SU20S 1000 3P MOD AC400	1/1
3	1250 A	500 - 1250A	1875-15000 A	116165	Ex9M6N SU20S 1250 3P MOD AC400	1/1
3	1600 A	640 - 1600A	2400-19200 A	116166	Ex9M6N SU20S 1600 3P MOD AC400	1/1
4	800 A	320 - 800A	1200-9600 A	116167	Ex9M6N SU20S 800 4P MOD AC400	1/1
4	1000 A	400 - 1000A	1500-12000 A	116168	Ex9M6N SU20S 1000 4P MOD AC400	1/1
4	1250 A	500 - 1250A	1875-15000 A	116169	Ex9M6N SU20S 1250 4P MOD AC400	1/1
4	1600 A	640 - 1600A	2400-19200 A	116170	Ex9M6N SU20S 1600 4P MOD AC400	1/1

Moulded Case Circuit Breakers **Ex9M SU20S**

Version Ex9M6N MOD DC110 up to 1600 A, $I_{cu} = 50$ k

- 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800 A	320 - 800A	1200-9600 A	116171	Ex9M6N SU20S 800 3P MOD DC110	1/1
3	1000 A	400 - 1000A	1500-12000 A	116172	Ex9M6N SU20S 1000 3P MOD DC110	1/1
3	1250 A	500 - 1250A	1875-15000 A	116173	Ex9M6N SU20S 1250 3P MOD DC110	1/1
3	1600 A	640 - 1600A	2400-19200 A	116174	Ex9M6N SU20S 1600 3P MOD DC110	1/1
4	800 A	320 - 800A	1200-9600 A	116175	Ex9M6N SU20S 800 4P MOD DC110	1/1
4	1000 A	400 - 1000A	1500-12000 A	116176	Ex9M6N SU20S 1000 4P MOD DC110	1/1
4	1250 A	500 - 1250A	1875-15000 A	116177	Ex9M6N SU20S 1250 4P MOD DC110	1/1
4	1600 A	640 - 1600A	2400-19200 A	116178	Ex9M6N SU20S 1600 4P MOD DC110	1/1

Version Ex9M6N MOD DC220 up to 1600 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800 A	320 - 800A	1200-9600 A	116179	Ex9M6N SU20S 800 3P MOD DC220	1/1
3	1000 A	400 - 1000A	1500-12000 A	116180	Ex9M6N SU20S 1000 3P MOD DC220	1/1
3	1250 A	500 - 1250A	1875-15000 A	116181	Ex9M6N SU20S 1250 3P MOD DC220	1/1
3	1600 A	640 - 1600A	2400-19200 A	116182	Ex9M6N SU20S 1600 3P MOD DC220	1/1
4	800 A	320 - 800A	1200-9600 A	116183	Ex9M6N SU20S 800 4P MOD DC220	1/1
4	1000 A	400 - 1000A	1500-12000 A	116184	Ex9M6N SU20S 1000 4P MOD DC220	1/1
4	1250 A	500 - 1250A	1875-15000 A	116185	Ex9M6N SU20S 1250 4P MOD DC220	1/1
4	1600 A	640 - 1600A	2400-19200 A	116186	Ex9M6N SU20S 1600 4P MOD DC220	1/1

Moulded Case Circuit Breakers **Ex9M SU20S**

Version Ex9M6Q MOD AC230 up to 1600 A, $I_{cu} = 70 \text{ kA}$

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 70 \text{ kA}$ at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800 A	320 - 800A	1200-9600 A	116187	Ex9M6Q SU20S 800 3P MOD AC230	1/1
3	1000 A	400 - 1000A	1500-12000 A	116188	Ex9M6Q SU20S 1000 3P MOD AC230	1/1
3	1250 A	500 - 1250A	1875-15000 A	116189	Ex9M6Q SU20S 1250 3P MOD AC230	1/1
3	1600 A	640 - 1600A	2400-19200 A	116190	Ex9M6Q SU20S 1600 3P MOD AC230	1/1
4	800 A	320 - 800A	1200-9600 A	116191	Ex9M6Q SU20S 800 4P MOD AC230	1/1
4	1000 A	400 - 1000A	1500-12000 A	116192	Ex9M6Q SU20S 1000 4P MOD AC230	1/1
4	1250 A	500 - 1250A	1875-15000 A	116193	Ex9M6Q SU20S 1250 4P MOD AC230	1/1
4	1600 A	640 - 1600A	2400-19200 A	116194	Ex9M6Q SU20S 1600 4P MOD AC230	1/1

Version Ex9M6Q MOD AC400 up to 1600 A, $I_{cu} = 70 \text{ kA}$

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 70 \text{ kA}$ at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800 A	320 - 800A	1200-9600 A	116195	Ex9M6Q SU20S 800 3P MOD AC400	1/1
3	1000 A	400 - 1000A	1500-12000 A	116196	Ex9M6Q SU20S 1000 3P MOD AC400	1/1
3	1250 A	500 - 1250A	1875-15000 A	116197	Ex9M6Q SU20S 1250 3P MOD AC400	1/1
3	1600 A	640 - 1600A	2400-19200 A	116198	Ex9M6Q SU20S 1600 3P MOD AC400	1/1
4	800 A	320 - 800A	1200-9600 A	116199	Ex9M6Q SU20S 800 4P MOD AC400	1/1
4	1000 A	400 - 1000A	1500-12000 A	116200	Ex9M6Q SU20S 1000 4P MOD AC400	1/1
4	1250 A	500 - 1250A	1875-15000 A	116201	Ex9M6Q SU20S 1250 4P MOD AC400	1/1
4	1600 A	640 - 1600A	2400-19200 A	116202	Ex9M6Q SU20S 1600 4P MOD AC400	1/1

Moulded Case Circuit Breakers **Ex9M SU20S**

Version Ex9M6Q MOD DC110 up to 1600 A, $I_{cu} = 70 \text{ kA}$

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 70 \text{ kA}$ at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800 A	320 - 800A	1200-9600 A	116203	Ex9M6Q SU20S 800 3P MOD DC110	1/1
3	1000 A	400 - 1000A	1500-12000 A	116204	Ex9M6Q SU20S 1000 3P MOD DC110	1/1
3	1250 A	500 - 1250A	1875-15000 A	116205	Ex9M6Q SU20S 1250 3P MOD DC110	1/1
3	1600 A	640 - 1600A	2400-19200 A	116206	Ex9M6Q SU20S 1600 3P MOD DC110	1/1
4	800 A	320 - 800A	1200-9600 A	116207	Ex9M6Q SU20S 800 4P MOD DC110	1/1
4	1000 A	400 - 1000A	1500-12000 A	116208	Ex9M6Q SU20S 1000 4P MOD DC110	1/1
4	1250 A	500 - 1250A	1875-15000 A	116209	Ex9M6Q SU20S 1250 4P MOD DC110	1/1
4	1600 A	640 - 1600A	2400-19200 A	116210	Ex9M6Q SU20S 1600 4P MOD DC110	1/1

Version Ex9M6Q MOD DC220 up to 1600 A, $I_{cu} = 70 \text{ kA}$

- 3 and 4-pole Moulded Case Circuit Breakers
- $I_{cs} = I_{cu} = 70 \text{ kA}$ at 415 V AC
- I_r can be set in range $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800 A	320 - 800A	1200-9600 A	116211	Ex9M6Q SU20S 800 3P MOD DC220	1/1
3	1000 A	400 - 1000A	1500-12000 A	116212	Ex9M6Q SU20S 1000 3P MOD DC220	1/1
3	1250 A	500 - 1250A	1875-15000 A	116213	Ex9M6Q SU20S 1250 3P MOD DC220	1/1
3	1600 A	640 - 1600A	2400-19200 A	116214	Ex9M6Q SU20S 1600 3P MOD DC220	1/1
4	800 A	320 - 800A	1200-9600 A	116215	Ex9M6Q SU20S 800 4P MOD DC220	1/1
4	1000 A	400 - 1000A	1500-12000 A	116216	Ex9M6Q SU20S 1000 4P MOD DC220	1/1
4	1250 A	500 - 1250A	1875-15000 A	116217	Ex9M6Q SU20S 1250 4P MOD DC220	1/1
4	1600 A	640 - 1600A	2400-19200 A	116218	Ex9M6Q SU20S 1600 4P MOD DC220	1/1

Moulded Case Circuit Breakers **Ex9M SU20S**

Version Ex9M6H MOD AC230 up to 1600 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800 A	320 - 800A	1200-9600 A	116219	Ex9M6H SU20S 800 3P MOD AC230	1/1
3	1000 A	400 - 1000A	1500-12000 A	116220	Ex9M6H SU20S 1000 3P MOD AC230	1/1
3	1250 A	500 - 1250A	1875-15000 A	116221	Ex9M6H SU20S 1250 3P MOD AC230	1/1
3	1600 A	640 - 1600A	2400-19200 A	116222	Ex9M6H SU20S 1600 3P MOD AC230	1/1
4	800 A	320 - 800A	1200-9600 A	116223	Ex9M6H SU20S 800 4P MOD AC230	1/1
4	1000 A	400 - 1000A	1500-12000 A	116224	Ex9M6H SU20S 1000 4P MOD AC230	1/1
4	1250 A	500 - 1250A	1875-15000 A	116225	Ex9M6H SU20S 1250 4P MOD AC230	1/1
4	1600 A	640 - 1600A	2400-19200 A	116226	Ex9M6H SU20S 1600 4P MOD AC230	1/1

Version Ex9M6H MOD AC400 up to 1600 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800 A	320 - 800A	1200-9600 A	116227	Ex9M6H SU20S 800 3P MOD AC400	1/1
3	1000 A	400 - 1000A	1500-12000 A	116228	Ex9M6H SU20S 1000 3P MOD AC400	1/1
3	1250 A	500 - 1250A	1875-15000 A	116229	Ex9M6H SU20S 1250 3P MOD AC400	1/1
3	1600 A	640 - 1600A	2400-19200 A	116230	Ex9M6H SU20S 1600 3P MOD AC400	1/1
4	800 A	320 - 800A	1200-9600 A	116231	Ex9M6H SU20S 800 4P MOD AC400	1/1
4	1000 A	400 - 1000A	1500-12000 A	116232	Ex9M6H SU20S 1000 4P MOD AC400	1/1
4	1250 A	500 - 1250A	1875-15000 A	116233	Ex9M6H SU20S 1250 4P MOD AC400	1/1
4	1600 A	640 - 1600A	2400-19200 A	116234	Ex9M6H SU20S 1600 4P MOD AC400	1/1

Moulded Case Circuit Breakers **Ex9M SU20S**

Version Ex9M6H MOD DC110 up to 1600 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800 A	320 - 800A	1200-9600 A	116235	Ex9M6H SU20S 800 3P MOD DC110	1/1
3	1000 A	400 - 1000A	1500-12000 A	116236	Ex9M6H SU20S 1000 3P MOD DC110	1/1
3	1250 A	500 - 1250A	1875-15000 A	116237	Ex9M6H SU20S 1250 3P MOD DC110	1/1
3	1600 A	640 - 1600A	2400-19200 A	116238	Ex9M6H SU20S 1600 3P MOD DC110	1/1
4	800 A	320 - 800A	1200-9600 A	116239	Ex9M6H SU20S 800 4P MOD DC110	1/1
4	1000 A	400 - 1000A	1500-12000 A	116240	Ex9M6H SU20S 1000 4P MOD DC110	1/1
4	1250 A	500 - 1250A	1875-15000 A	116241	Ex9M6H SU20S 1250 4P MOD DC110	1/1
4	1600 A	640 - 1600A	2400-19200 A	116242	Ex9M6H SU20S 1600 4P MOD DC110	1/1

Version Ex9M6H MOD DC220 up to 1600 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 $(0.4 - 1.0) \times I_n$
- I_i can be set in range $(1.5 - 12) \times I_n$
- 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	800 A	320 - 800A	1200-9600 A	116243	Ex9M6H SU20S 800 3P MOD DC220	1/1
3	1000 A	400 - 1000A	1500-12000 A	116244	Ex9M6H SU20S 1000 3P MOD DC220	1/1
3	1250 A	500 - 1250A	1875-15000 A	116245	Ex9M6H SU20S 1250 3P MOD DC220	1/1
3	1600 A	640 - 1600A	2400-19200 A	116246	Ex9M6H SU20S 1600 3P MOD DC220	1/1
4	800 A	320 - 800A	1200-9600 A	116247	Ex9M6H SU20S 800 4P MOD DC220	1/1
4	1000 A	400 - 1000A	1500-12000 A	116248	Ex9M6H SU20S 1000 4P MOD DC220	1/1
4	1250 A	500 - 1250A	1875-15000 A	116249	Ex9M6H SU20S 1250 4P MOD DC220	1/1
4	1600 A	640 - 1600A	2400-19200 A	116250	Ex9M6H SU20S 1600 4P MOD DC220	1/1

Technical Data **Ex9M2 SU20S**

SU20S Moulded Case Circuit Breakers up to 250 A

General parameters		
Suitable for commercial as well as industrial applications		
I_r can be set in range $(0.4 - 1.0) \times I_n$		
I_i can be set in range $(1.5 - 12) \times I_n$		
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 — 101434
Terminal cover, short	TCV22 3P, 4P	101442, 102374
Terminal cover, long	TCE22 3P, 4P	101443, 102375
Phase barrier	PHS22	112111
Connection terminals	MC22	103709, 103869, 103711, 103713
DIN-rail adapter	DRA22	106320
Plug-in base	PIA 22 SU20	112093 — 112094
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]				
	32 A	63 A	100 A	160 A	250 A
Ex9ML	1	1	1	1	0.95
PIA 22 SU20	1	1	1	1	0.95

Technical Data **Ex9M2 SU20S**

SU20S Moulded Case Circuit Breakers up to 250 A

Electrical parameters					
	Ex9M2S	Ex9M2N	Ex9M2Q	Ex9M2H	Ex9M2P
Tested according to	IEC/EN 60947-2				
Rated op. voltage U_e	380 / 400 / 415, 440, 500, 660 / 690 V AC				
Rated insulation voltage U_i	1 000 V				
Rated impulse withstand voltage U_{imp}	8 kV				
Rated frequency	50/60 Hz				
Rated ultimate short-circuit breaking capacity I_{cu}	36 kA / 415 V 6 kA / 690 V	50 kA / 415 V 8 kA / 690 V	70 kA / 415 V 8 kA / 690 V	100 kA / 415 V 10 kA / 690 V	150 kA / 415 V 10 kA / 690 V
Rated service short-circuit breaking capacity I_{cs}	36 kA / 415 V 6 kA / 690 V	50 kA / 415 V 8 kA / 690 V	70 kA / 415 V 8 kA / 690 V	100 kA / 415 V 10 kA / 690 V	150 kA / 415 V 10 kA / 690 V
Rated current	32 / 63 / 100 / 160 / 250 A				
Utilization category	A				
Rated short-time withstanding current $I_{cw} 1s$	1 kA (32 — 63 A) 2 kA (80 — 160 A) 3 kA (180 — 250 A)				
Mechanical service life	15 000 operation cycles				
Electrical service life	5 000 operation cycles / 415 V AC 2 000 operation cycles / 690 V AC				
Total disconnection time at short circuit	< 2 ms				
Line voltage connection	arbitrary above or below				

Dependence of Tripping Characteristics on Ambient Temperature

T [°C]	I_n (T) [A]				
	32 A	63 A	100 A	160 A	250 A
-35	32	63	100	160	250
-25	32	63	100	160	250
-15	32	63	100	160	250
-5	32	63	100	160	250
0	32	63	100	160	250
10	32	63	100	160	250
20	32	63	100	160	250
30	32	63	100	160	250
40	32	63	100	160	250
50	32	63	100	160	240
60	32	63	100	160	225
70	32	63	100	160	213

Power dissipation characteristics

I_n	32 A	63 A	100 A	160 A	250 A
Pole resistance	0.8 mΩ	0.4 mΩ	0.4 mΩ	0.4 mΩ	0.4 mΩ
Pole power dissipation	0.8 W	1.6 W	4.0 W	10.2 W	25 W

Technical Data **Ex9M2 SU20S**

SU20S Moulded Case Circuit Breakers up to 250 A

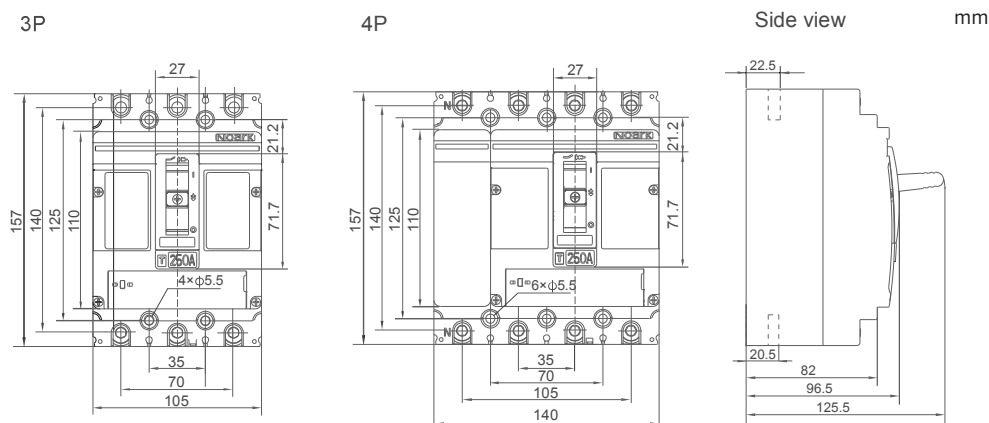
Mechanical parameters

Device width 3P / 4P	105 mm / 140 mm
Device height	157 mm
Device depth	96.5 mm
Mounting	onto panel
Degree of protection	IP40, IP20 terminals
Terminals	box
Terminal capacity	10 — 120 mm ²
Fastening torque of terminals	25 Nm
Ambient temperature	-35 — +70 °C
Relative humidity	≤ 50 % at 40 °C, ≤ 90 % monthly average
Pollution degree	3
Weight 3P / 4P	2 kg / 2.65 kg
Mounting position	vertical, can be rotated by 90° in each axis

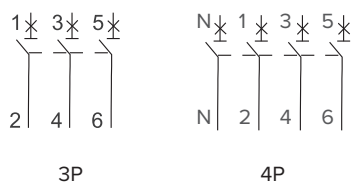
Derating coefficient of technical parameters based on altitude

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

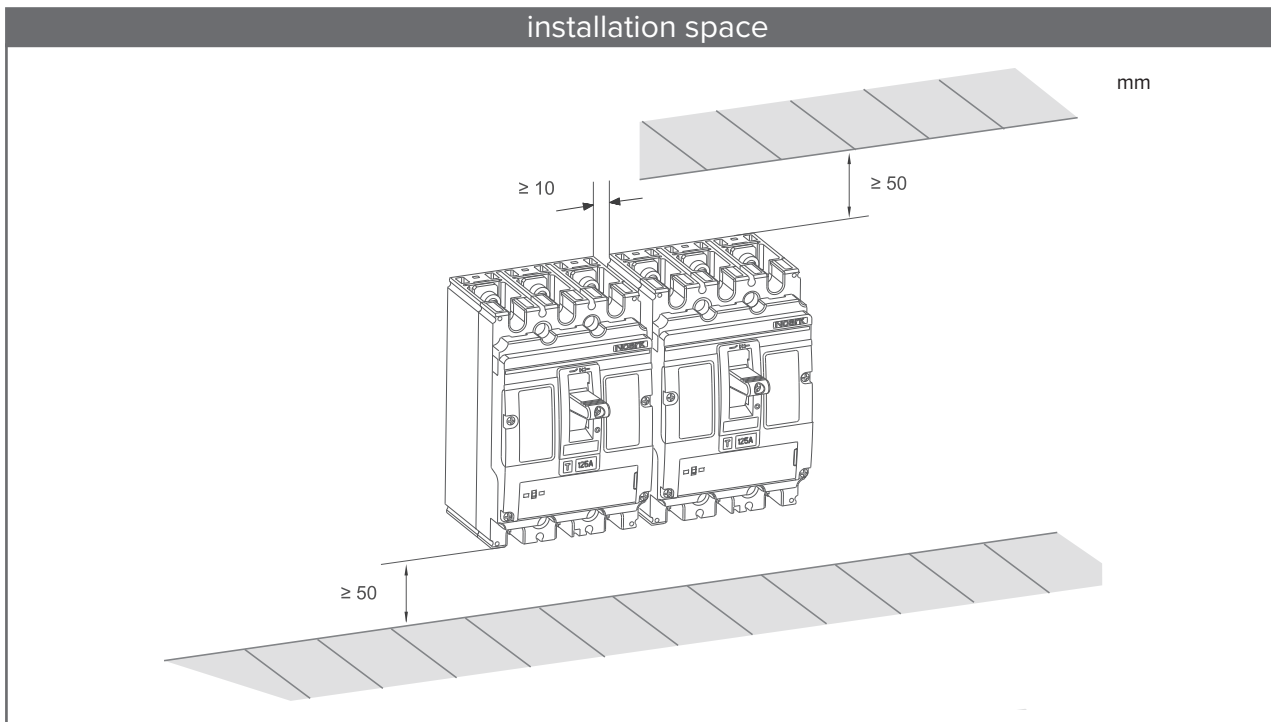


Wiring diagram

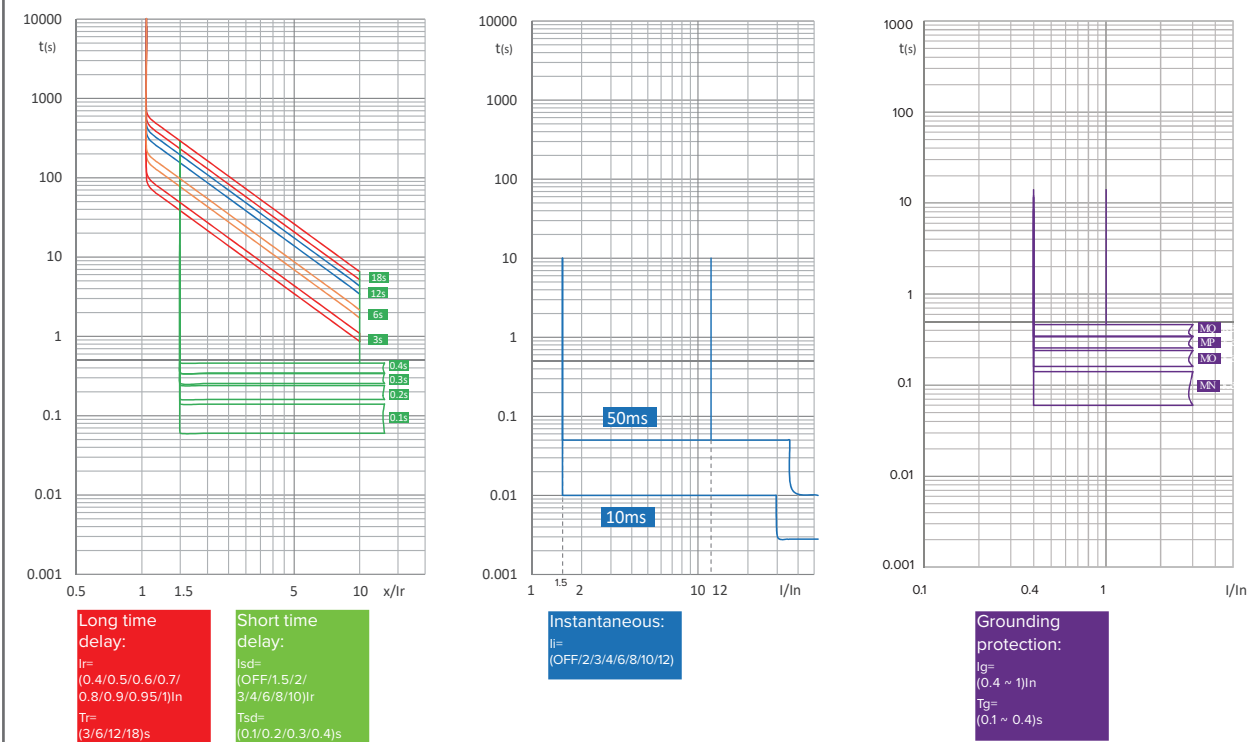


Technical Data **Ex9M2 SU20S**

SU20S Moulded Case Circuit Breakers up to 250 A



Tripping characteristics



Technical Data **Ex9M3 SU20S**

SU20S 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 $(0.4 - 1.0) \times I_n$		
I_i can be set in range $(1.5 - 12) \times I_n$		
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 — 101488
Terminal cover, short	TCV23 3P, 4P	101489, 102376
Terminal cover, long	TCE23 3P, 4P	101490, 102377
Phase barrier	PHS23	112112
Connection terminals	MC23	103715 — 103722
Plug-in base	PIA 23 SU20	112095 — 112100
Withdrawable base	DOB 23 SU20	112101 — 112108
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	400 A	630 A
Ex9ML	1	1	0.9
PIA 23 SU20	1	1	0.9 ($\leq 570A$)
DOB 23 SU20	1	1	0.9 ($\leq 570A$)

Technical Data **Ex9M3 SU20S**

SU20S Moulded Case Circuit Breakers up to 630 A

Electrical parameters					
	Ex9M3S	Ex9M3N	Ex9M3Q	Ex9M3H	Ex9M3P
Tested according to	IEC/EN 60947-2				
Rated op. voltage U_e	380 / 400 / 415, 440, 500, 660 / 690 V AC				
Rated insulation voltage U_i	1 000 V				
Rated impulse withstand voltage U_{imp}	12 kV				
Rated frequency	50/60 Hz				
Rated ultimate short-circuit breaking capacity I_{cu}	36 kA / 415 V 10 kA / 690 V	50 kA / 415 V 12 kA / 690 V	70 kA / 415 V 12 kA / 690 V	100 kA / 415 V 15 kA / 690 V	150 kA / 415 V 15 kA / 690 V
Rated service short-circuit breaking capacity I_{cs}	36 kA / 415 V 10 kA / 690 V	50 kA / 415 V 12 kA / 690 V	70 kA / 415 V 12 kA / 690 V	100 kA / 415 V 15 kA / 690 V	150 kA / 415 V 15 kA / 690 V
Rated current	250 / 400 / 630 A				
Utilization category	B				
Rated short-time withstanding current I_{cw} 1s	5 kA (250 — 400 A) 8 kA (500 — 630 A)				
Mechanical service life	15 000 operation cycles				
Electrical service life	4 000 operation cycles / 415 V AC 1 500 operation cycles / 690 V AC				
Total disconnection time at short circuit	< 2 ms				
Line voltage connection	arbitrary above or below				

Dependence of Tripping Characteristics on Ambient Temperature

T [°C]	I_n (T) [A]		
	250 A	400 A	630 A
-35	250	400	630
-25	250	400	630
-15	250	400	630
-5	250	400	630
0	250	400	630
10	250	400	630
20	250	400	630
30	250	400	630
40	250	400	630
50	250	380	600
60	250	360	570
70	250	340	540

Power dissipation characteristics

I_n	250 A	400 A	630 A
Pole resistance	0.15 mΩ	0.15 mΩ	0.12 mΩ
Pole power dissipation	9.4 W	24.0 W	47.6 W

Technical Data **Ex9M3 SU20S**

SU20S Moulded Case Circuit Breakers up to 630 A

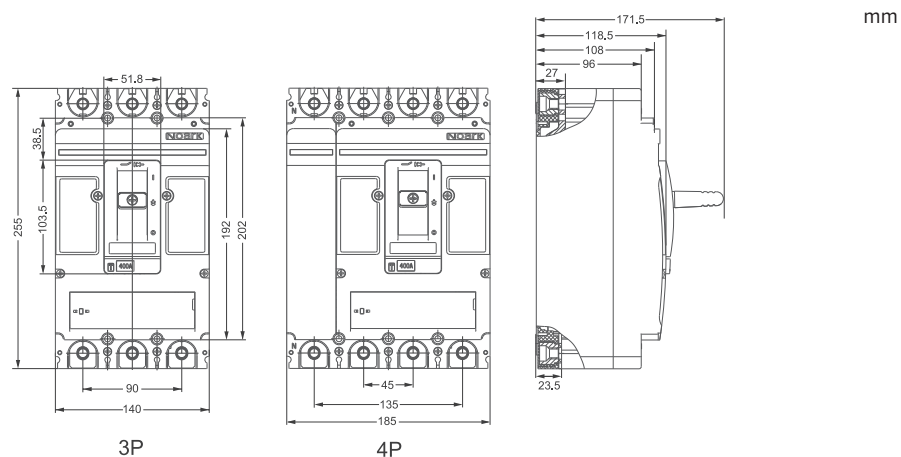
Mechanical parameters

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	-35 — +70 °C
Relative humidity	≤ 50 % at 40 °C, ≤ 90 % monthly average
Pollution degree	3
Weight 3P / 4P	5.8 kg / 7.8 kg
Mounting position	vertical, can be rotated by 90° in each axis

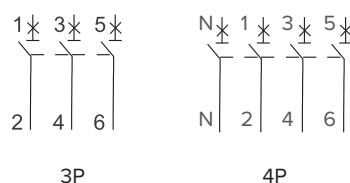
Derating coefficient of technical parameters based on altitude

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

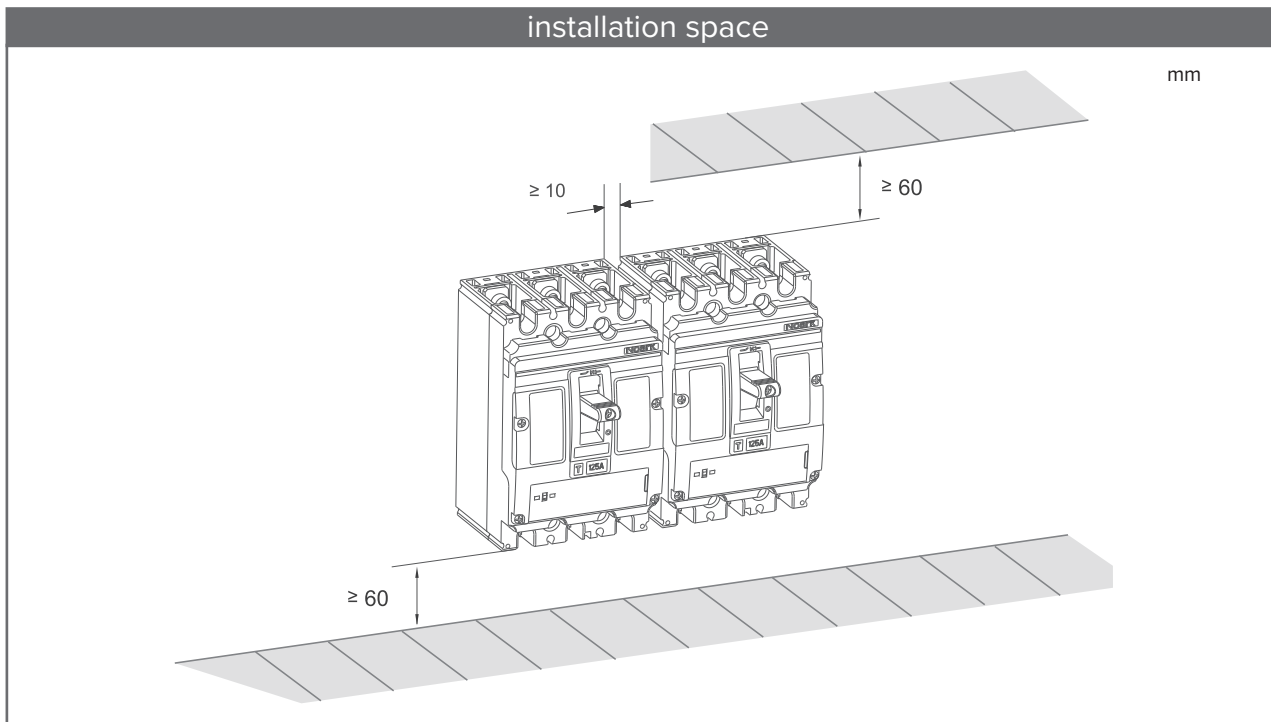


Wiring diagram

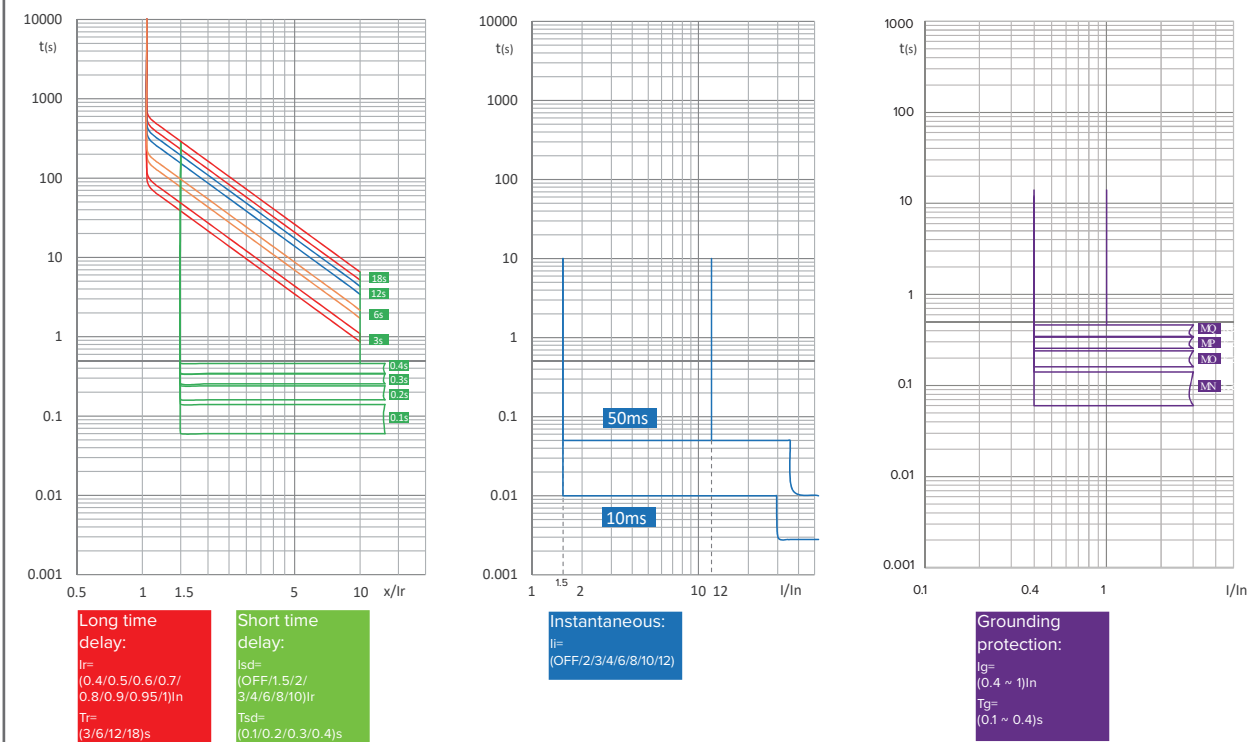


Technical Data **Ex9M3 SU20S**

SU20S Moulded Case Circuit Breakers up to 630 A



Tripping characteristics



Technical Data **Ex9M4 SU20S**

SU20S 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 $(0.4 - 1.0) \times I_n$		
I_i can be set in range $(1.5 - 12) \times I_n$		
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	103743 — 103747
Terminal cover, short	TCV24 3P, 4P	103748, 103750
Terminal cover, long	TCE24 3P, 4P	103749, 104855
Phase barrier	PHS24	112113
Connection terminals	MC24 W2	106314
Withdrawable base	DOB24 SU20	108891, 108903, 108897, 108909
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	
DOB 24 SU20	0.95	

Technical Data **Ex9M4 SU20S**

SU20S Moulded Case Circuit Breakers up to 630 A

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

Dependence of Tripping Characteristics on Ambient Temperature

T [°C]	I_n (T) [A]
	630 A
-35	630
-25	630
-15	630
-5	630
0	630
10	630
20	630
30	630
40	630
50	600
60	570
70	540

Power dissipation characteristics

I_n	630 A
Pole resistance	0.12 mΩ
Pole power dissipation	47.6 W

Technical Data **Ex9M4 SU20S**

SU20S Moulded Case Circuit Breakers up to 630 A

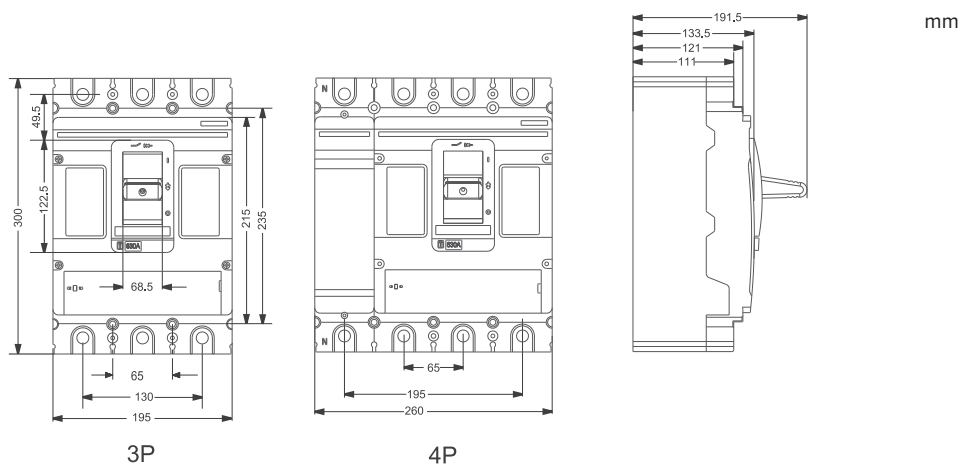
Mechanical parameters

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	-35 — +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

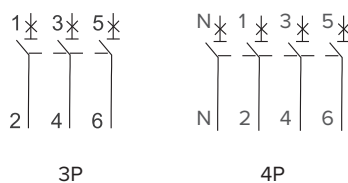
Derating coefficient of technical parameters based on altitude

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

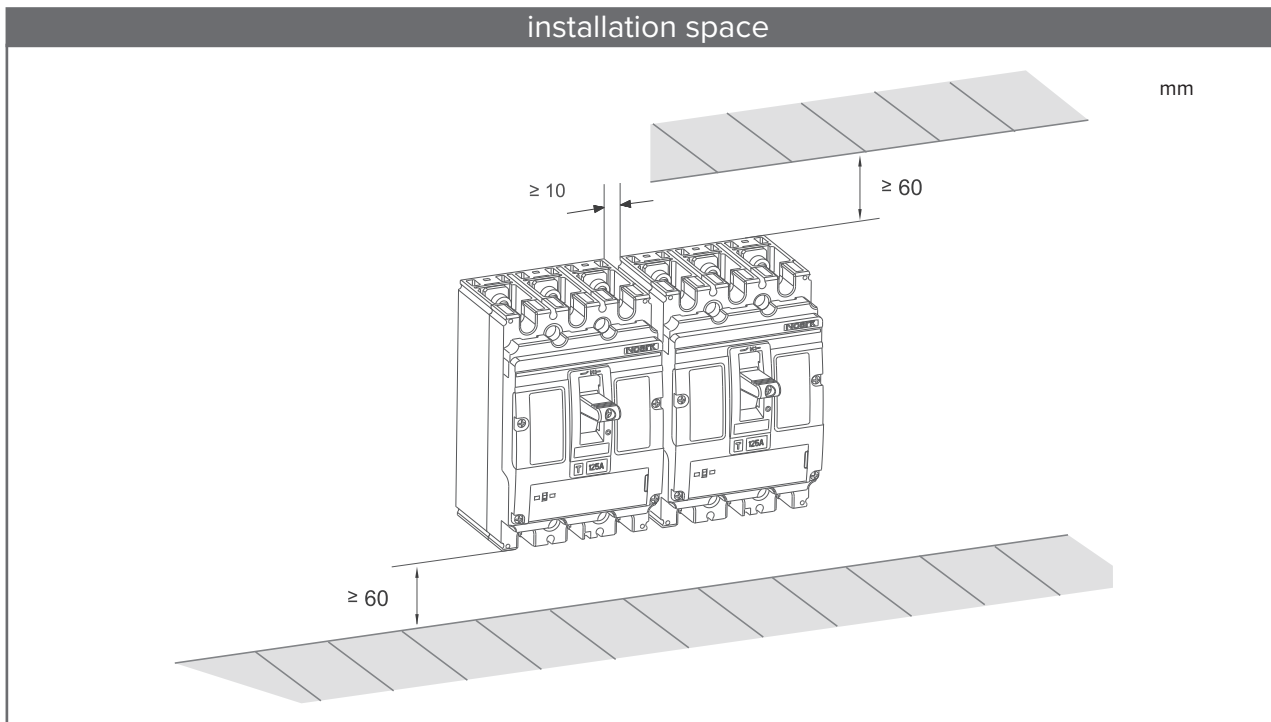


Wiring diagram

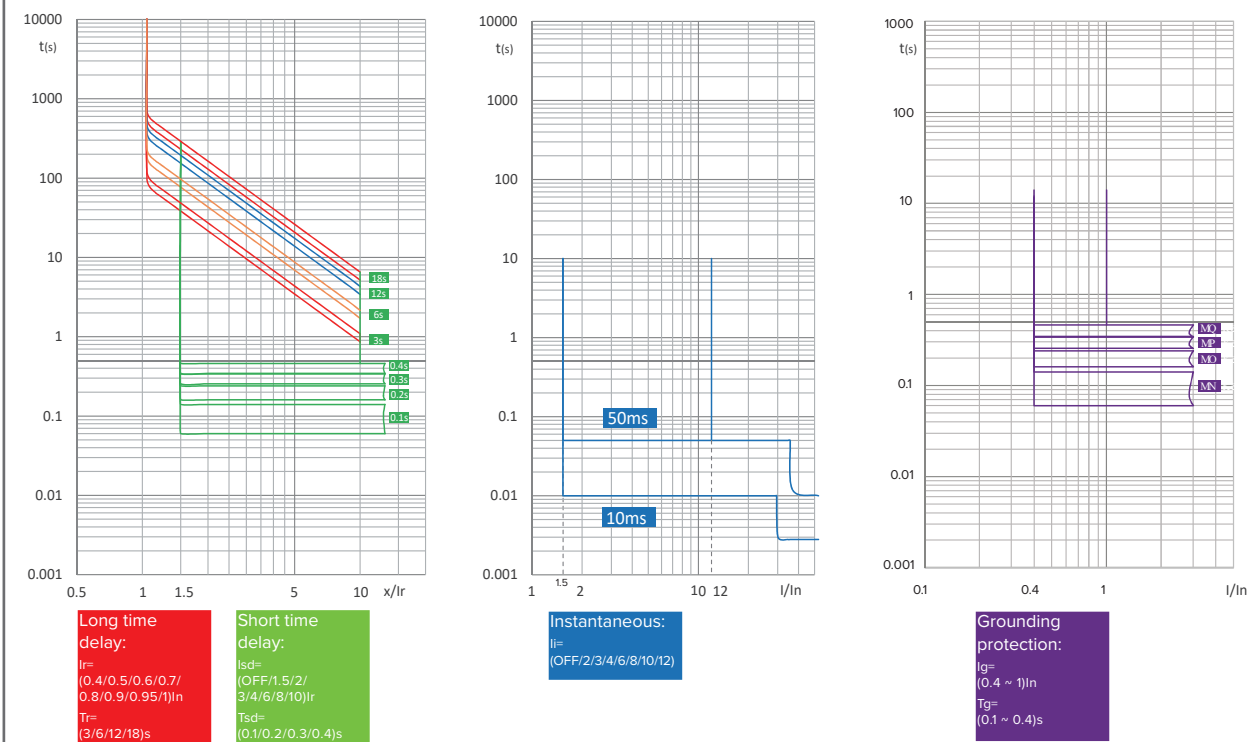


Technical Data **Ex9M4 SU20S**

SU20S Moulded Case Circuit Breakers up to 630 A



Tripping characteristics



Technical Data **Ex9M5 SU20S**

SU20S 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 $(0.4 - 1.0) \times I_n$		
I_i can be set in range $(1.5 - 12) \times I_n$		
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	103743 — 103747
Terminal cover, short	TCV24 3P, 4P	103748, 103750
Terminal cover, long	TCE24 3P, 4P	103749, 104855
Phase barrier	PHS24	112113
Connection terminals	MC24 W2	106314
Withdrawable base	DOB24 SU20	108891, 108903, 108897, 108909
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]	
	800 A	
DOB 24 SU20	0.9	

Technical Data **Ex9M5 SU20S**

SU20S Moulded Case Circuit Breakers up to 800 A

Electrical parameters					
	Ex9M5S	Ex9M5N	Ex9M5Q	Ex9M5H	Ex9M5P
Tested according to	IEC/EN 60947-2				
Rated op. voltage U_e	380 / 400 / 415, 440, 500, 660 / 690 V AC				
Rated insulation voltage U_i	1 000 V				
Rated impulse withstand voltage U_{imp}	12 kV				
Rated frequency	50/60 Hz				
Rated ultimate short-circuit breaking capacity I_{cu}	36 kA / 415 V 12 kA / 690 V	50 kA / 415 V 15 kA / 690 V	70 kA / 415 V 15 kA / 690 V	100 kA / 415 V 20 kA / 690 V	150 kA / 415 V 30 kA / 690 V
Rated service short-circuit breaking capacity I_{cs}	36 kA / 415 V 12 kA / 690 V	50 kA / 415 V 15 kA / 690 V	70 kA / 415 V 15 kA / 690 V	100 kA / 415 V 15 kA / 690 V	150 kA / 415 V 15 kA / 690 V
Rated current	800 A				
Utilization category	B				
Rated short-time withstanding current I_{cw} 1s	10 kA				
Mechanical service life	10 000 operation cycles				
Electrical service life	3 000 operation cycles / 415 V AC 1 000 operation cycles / 690 V AC				
Total disconnection time at short circuit	< 2 ms				
Line voltage connection	arbitrary above or below				

Dependence of Tripping Characteristics on Ambient Temperature

T [°C]	I_n (T) [A]
	800 A
-35	800
-25	800
-15	800
-5	800
0	800
10	800
20	800
30	800
40	800
50	760
60	720
70	680

Power dissipation characteristics

I_n	800 A
Pole resistance	0.08 mΩ
Pole power dissipation	51.2 W

Technical Data **Ex9M5 SU20S**

Moulded Case Circuit Breakers up to 800 A

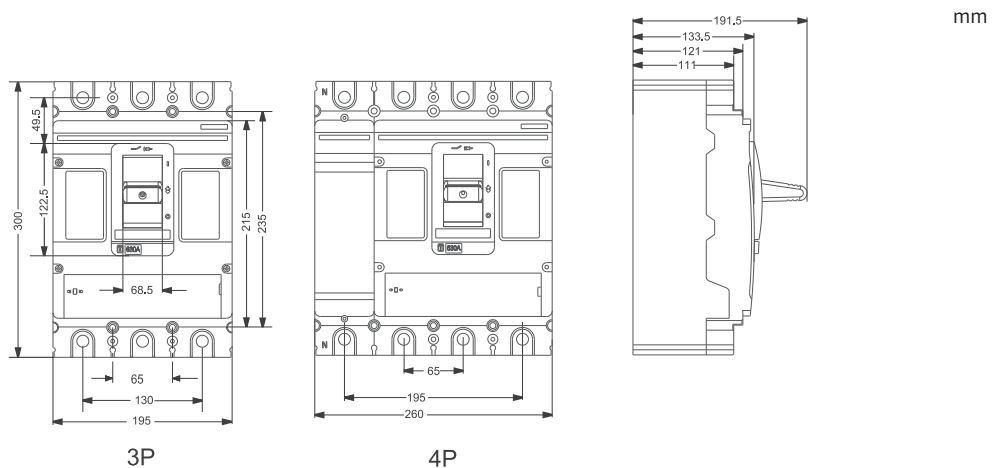
Mechanical parameters

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	-35 — +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

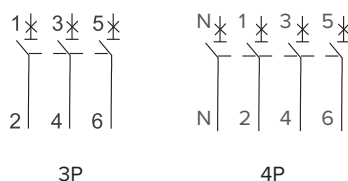
Derating coefficient of technical parameters based on altitude

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

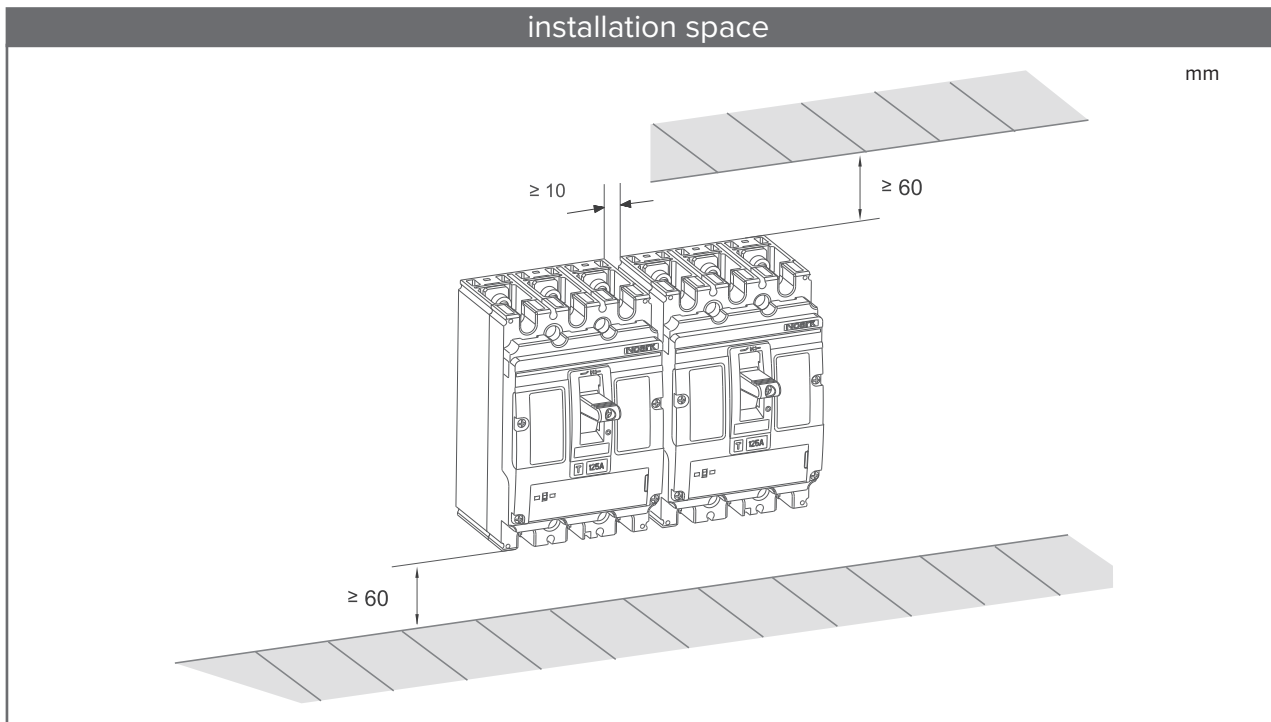


Wiring diagram

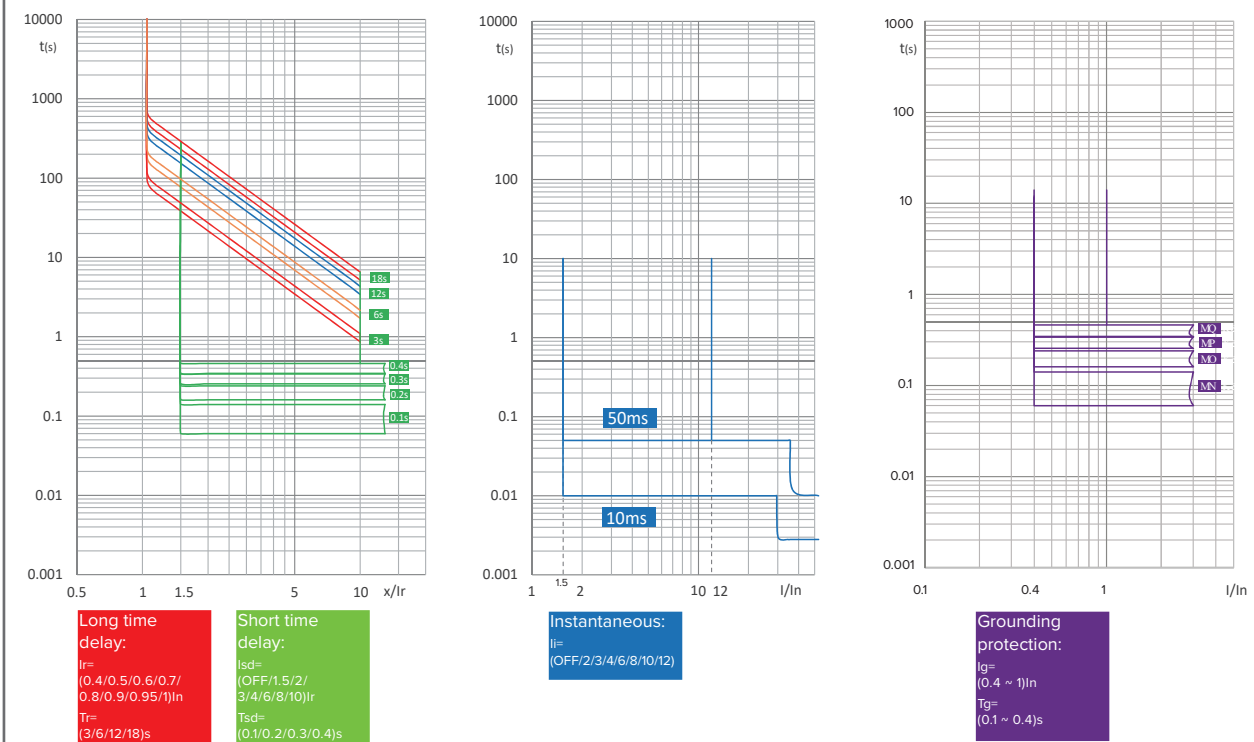


Technical Data **Ex9M5 SU20S**

Moulded Case Circuit Breakers up to 800 A



Tripping characteristics



Technical Data **Ex9M6 SU20S**

Moulded Case Circuit Breakers up to 1600 A

General parameters		
Suitable for household as well as industrial applications		
I_r can be set in range $(0.4 - 1.0) \times I_n$		
I_i can be set in range $(2 - 12) \times I_n$		
Internal accessories		
Auxiliary contact unit	AX21M	112071
Alarm contact unit	AL21M	112072
Shunt trip releases	SHT26	110460 — 110467
Undervoltage releases	UVT26	110468 — 110469, 112073 — 112078
Max. number of installed internal accessories is 2 pcs of AX21M, 1 pc of AL21M and 1 pc of a release (SHT26 or UVT26)		
External accessories		
Extended handle	LHD26	110698
Extended rotary handle	ERH26	110718
Front connection plate	JP26	110694 — 110697
Connection terminals	MC26 Wi	112091 / 112092
Phase barrier	PHS26	112114
Mounting screws, screw type terminals as well as phase barriers in the scope of delivery		

Technical Data **Ex9M6 SU20S**

Moulded Case Circuit Breakers up to 1600 A

Electrical parameters			
	Ex9M6N	Ex9M6Q	Ex9M6H
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}	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 current	800 / 1000 / 1 250 / 1 600 A		
Utilization category	B		
Rated short-time withstanding current $I_{cw} 1s$	20 kA		
Mechanical service life	6 000 operation cycles		
Electrical service life	1 000 operation cycles / 415 V AC 1 000 operation cycles / 690 V AC		
Total disconnection time at short circuit	< 10 ms		
Line voltage connection	line voltage on top, load on bottom		

Dependence of Tripping Characteristics on Ambient Temperature

T [°C]	I_n (T) [A]			
	800 A	1 000 A	1 250 A	1 600 A
-35	800	1 000 A	1 250 A	1 600 A
-25	800	1 000 A	1 250 A	1 600 A
-15	800	1 000 A	1 250 A	1 600 A
-5	800	1 000 A	1 250 A	1 600 A
0	800	1 000 A	1 250 A	1 600 A
10	800	1 000 A	1 250 A	1 600 A
20	800	1 000 A	1 250 A	1 600 A
30	800	1 000 A	1 250 A	1 600 A
40	800	1 000 A	1 250 A	1 600 A
50	800	1 000 A	1 250 A	1 520 A
60	800	1 000 A	1 250 A	1 440 A
70	800	1 000 A	1 250 A	1 360 A

Power dissipation characteristics

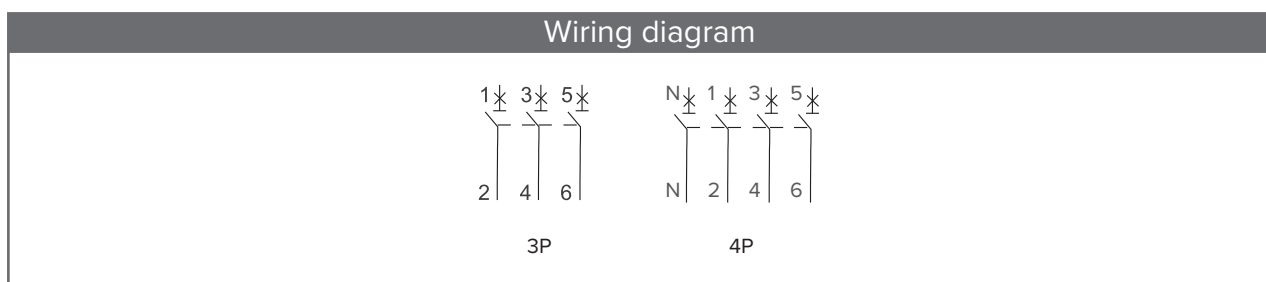
I_n	800 A	1 000 A	1 250 A	1 600 A
Pole resistance	0.08 mΩ	0.08 mΩ	0.04 mΩ	0.04 mΩ
Pole power dissipation	51.2 W	80.0 W	62.5 W	102.4 W

Technical Data **Ex9M6 SU20S**

Moulded Case Circuit Breakers up to 1600 A

Mechanical parameters	
Device width 3P / 4P	210 mm / 280 mm
Device height	286 mm
Device depth	191 (198) mm
Mounting	onto panel
Degree of protection	IP40, IP20 terminals
Terminals	M10 screws
Busbar thickness	≤ 10 mm
Busbar width	≤ 50 mm
Cable lug width	≤ 50 mm
Fastening torque of terminals	25 — 30 Nm
Ambient temperature	-35 — +70 °C
Relative humidity	≤ 50 % at 40 °C, ≤ 90 % monthly average
Pollution degree	3
Weight 3P / 4P	13.5 / 17.5 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

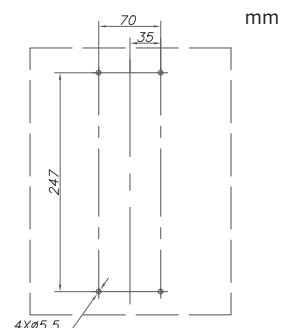
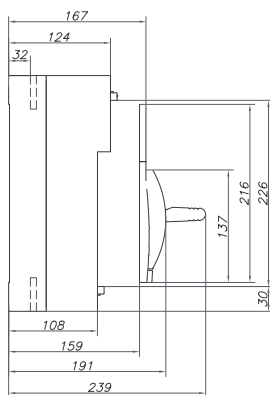
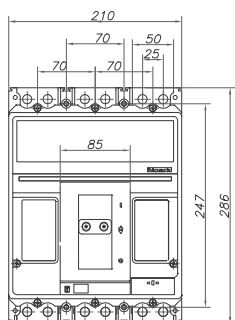


Technical Data **Ex9M6 SU20S**

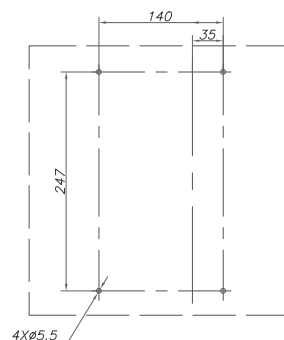
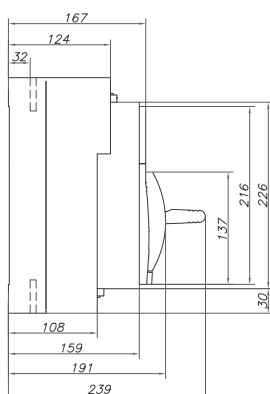
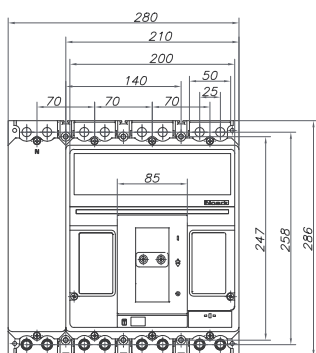
Moulded Case Circuit Breakers up to 1600 A

Dimensions

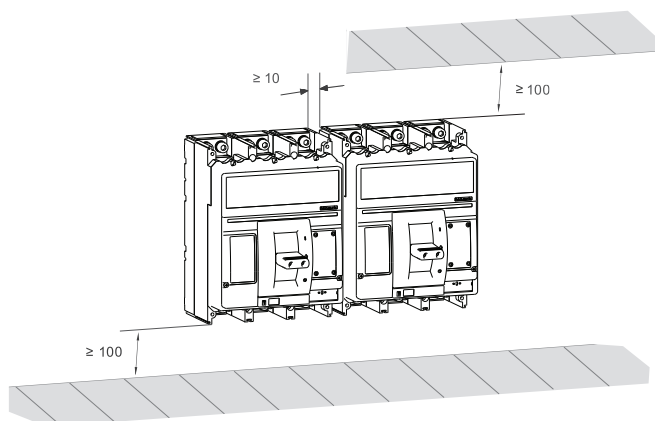
3P



4P



Installation space

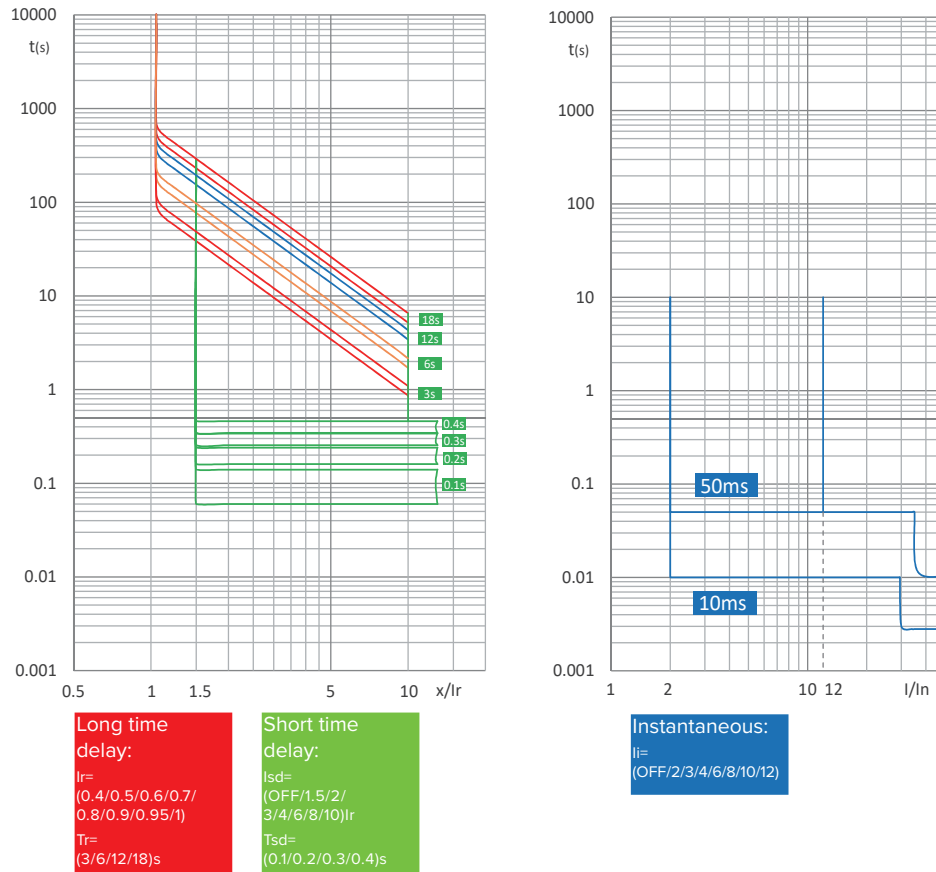


mm

Technical Data **Ex9M6 SU20S**

Moulded Case Circuit Breakers up to 1600 A

Tripping characteristics



Technical Data **Ex9M6 MOD SU20S**

Moulded Case Circuit Breakers up to 1600 A

General parameters		
Suitable for household as well as industrial applications		
I_r can be set in range $(0.4 - 1.0) \times I_n$		
I_i can be set in range $(2 - 12) \times I_n$		
Internal accessories		
Auxiliary contact unit	AX21M	112071
Alarm contact unit	AL21M	112072
Shunt trip releases	SHT26	110460 — 110467
Undervoltage releases	UVT26	110468 — 110469, 112073 — 112078
Max. number of installed internal accessories is 2 pcs of AX21, 1 pc of AL21 and 1 pc of a release (SHT26 or UVT26)		
External accessories		
Front connection plate	JP26	110694 — 110697
Connection terminals	MC26 Wi	112091 — 112092
Phase barrier	PHS26	112114
Mounting screws, screw type terminals as well as phase barriers in the scope of delivery		

Technical Data **Ex9M6 MOD SU20S**

Moulded Case Circuit Breakers up to 1600 A

Electrical parameters			
	Ex9M6N	Ex9M6Q	Ex9M6H
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}	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 current	800 / 1000 / 1 250 / 1 600 A		
Utilization category	B		
Rated short-time withstanding current I_{cw} 1s	20 kA		
Mechanical service life	6 000 operation cycles		
Electrical service life	1 000 operation cycles / 415 V AC 1 000 operation cycles / 690 V AC		
Total disconnection time at short circuit	< 10 ms		
Line voltage connection	line voltage on top, load on bottom		

Dependence of Tripping Characteristics on Ambient Temperature

T [°C]	I_n (T) [A]			
	800 A	1 000 A	1 250 A	1 600 A
-35	800	1 000 A	1 250 A	1 600 A
-25	800	1 000 A	1 250 A	1 600 A
-15	800	1 000 A	1 250 A	1 600 A
-5	800	1 000 A	1 250 A	1 600 A
0	800	1 000 A	1 250 A	1 600 A
10	800	1 000 A	1 250 A	1 600 A
20	800	1 000 A	1 250 A	1 600 A
30	800	1 000 A	1 250 A	1 600 A
40	800	1 000 A	1 250 A	1 600 A
50	800	1 000 A	1 250 A	1 520 A
60	800	1 000 A	1 250 A	1 440 A
70	800	1 000 A	1 250 A	1 360 A

Power dissipation characteristics

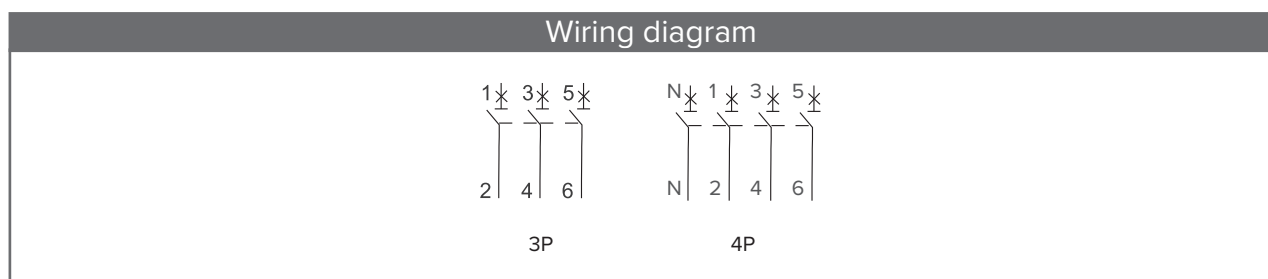
I_n	800 A	1 000 A	1 250 A	1 600 A
Pole resistance	0.08 mΩ	0.08 mΩ	0.04 mΩ	0.04 mΩ
Pole power dissipation	51.2 W	80.0 W	62.5 W	102.4 W

Technical Data **Ex9M6 MOD SU20S**

Moulded Case Circuit Breakers 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	IP40, IP20 terminals
Terminals	M10 screws
Busbar thickness	≤ 10 mm
Busbar width	≤ 50 mm
Cable lug width	≤ 50 mm
Fastening torque of terminals	25 — 30 Nm
Ambient temperature	-35 — +70 °C
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

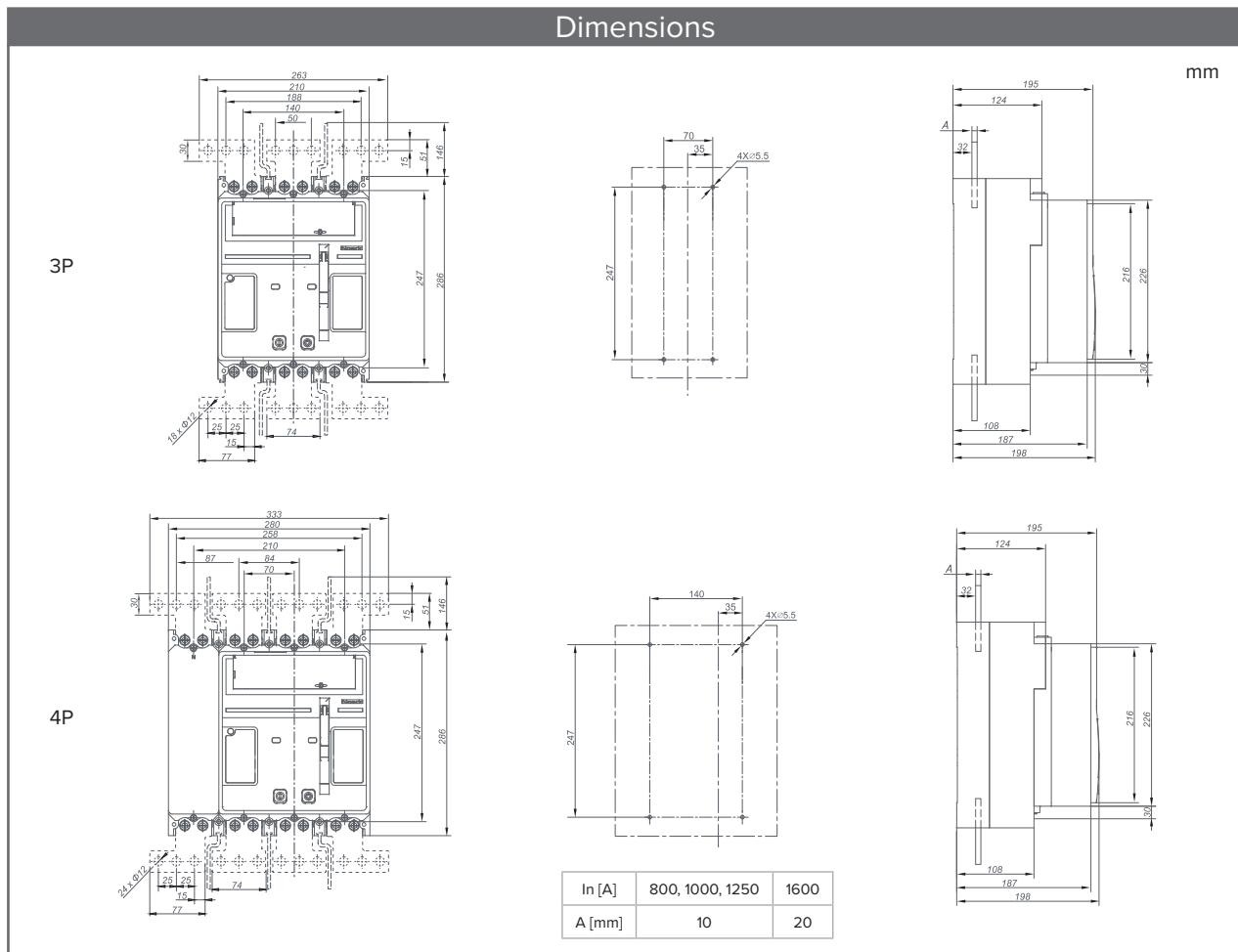
Derating coefficient of technical parameters based on altitude				
Altitude	≤ 2 000 m	3 000 m	4 000 m	5 000 m
Derating op. current I_n coefficient	1	0.96	0.93	0.9
Maximum rated op. voltage U_e	690 V AC	550 V AC	480 V AC	420 V AC
Rated insulation voltage U_i	1000 V AC	930 V AC	870 V AC	800 V AC
Rated 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



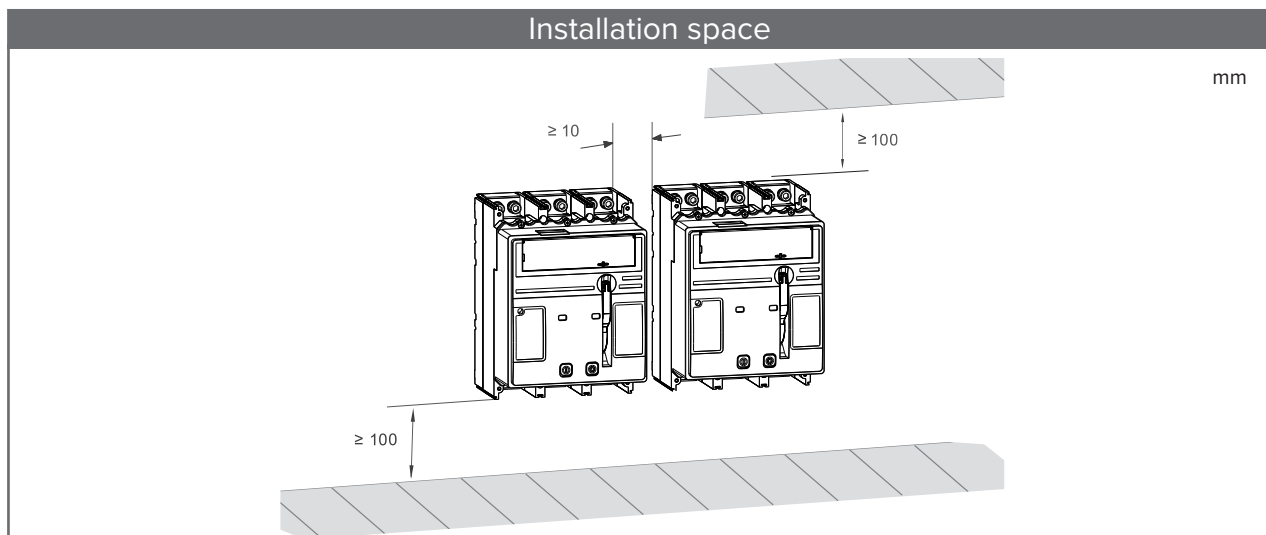
Technical Data **Ex9M6 MOD SU20S**

Moulded Case Circuit Breakers up to 1600 A

Dimensions



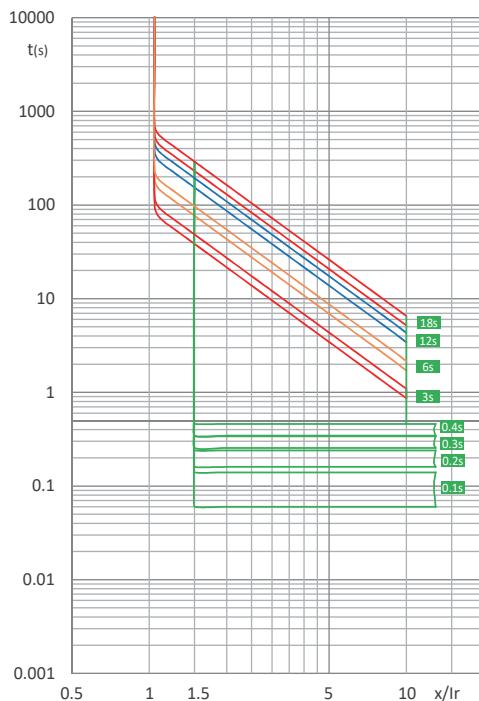
Installation space



Technical Data **Ex9M6 MOD SU20S**

Moulded Case Circuit Breakers up to 1600 A

Tripping characteristics

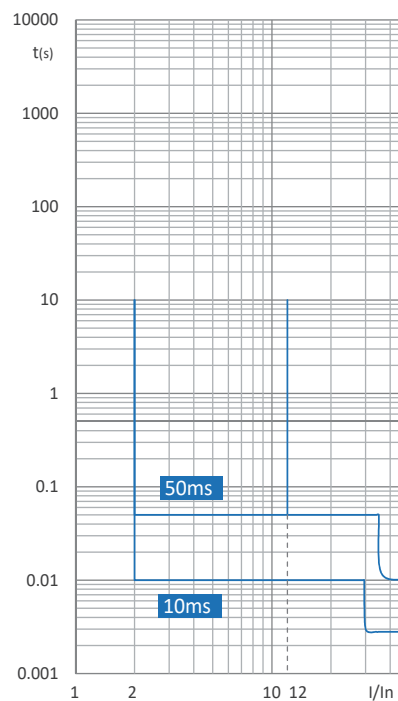


Long time delay:

$I_r =$
(0.4/0.5/0.6/0.7/
0.8/0.9/0.95/1)
 $T_r =$
(3/6/12/18)s

Short time delay:

$I_{sd} =$
(OFF/1.5/2/
3/4/6/8/10) I_r
 $T_{sd} =$
(0.1/0.2/0.3/0.4)s



Instantaneous:

$I_i =$
(OFF/2/3/4/6/8/10/12)

Technical Data **Ex9M6 MOD SU20S**

Motor operated SU20L 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 24 V DC 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	≤ 4 s
Insulation voltage	400 V
Peak current	$6 \times I_n$

Technical Data **Ex9M6 MOD SU20S**

Motor operated SU20L 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	≤ 50 ms
Breaking time	30 ± 10 ms
Insulation voltage	400 V
Peak current	$6 \times I_n$