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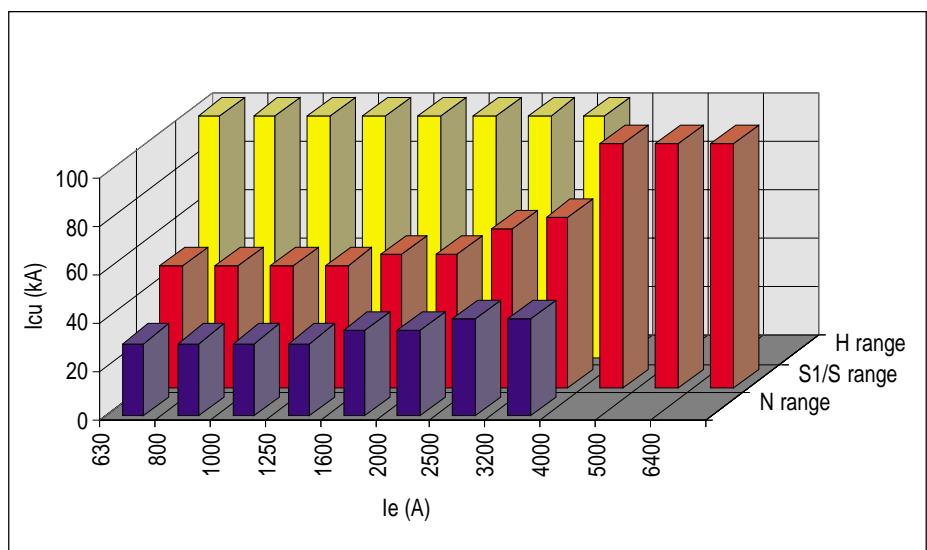
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Notes

Air circuit breakers 630 to 6400A



Rated short-circuit breaking capacity at 415V according to IEC 947-2



Three ranges of circuit breakers Series ME for time delayed selectivity with different breaking capacities in each frame size offer a compact and economic solution for all installations.

Economy range N

The economic solution for medium power distribution systems.

Standard range S1/S

The solution for heavy power distribution requirements with sufficiently high breaking capacity for complete time selective discrimination.

High performance range H

The compact solution for distribution of extremely high power levels up to 100 kA in industrial and marine installations in each frame size.

Complete line

- Compact, robust steel frame construction which reduces the space requirements within enclosures.
- Circuit breakers and disconnecting switches.
- 3- and 4-pole devices.
- Fixed and withdrawable versions.
- Appearance of the operator control panel in a modern industry design is identical for the complete productline.
- Drive mechanisms, trip units and accessories e.g. undervoltage trip, shunt trip and auxiliary contacts are common for all frame sizes.
- Manual or motor operated stored energy drive mechanism for direct and remote actuation.
- Microprocessor controlled trip units for all round protection.
- Bus connection.

Conformity

The circuit breakers Series ME07 comply with the standard "Low-voltage switchgear and controlgear" VDE 0660 Part 101, respectively IEC 947-2 and VDE 0113.

The disconnecting switches Series MET are in accordance with the standard "Low-voltage switchgear and controlgear" VDE 0660 Part 107, respectively IEC 947-3 and VDE 0113.

Certifications

ABS	American Bureau of Shipping
BV	Bureau Veritas
DNV	Det Norske Veritas
GL	German Lloyd
LRoS	Lloyd's Register of Shipping
RINA	Registro Italiano Navale
RMRoS	Russian Maritime Register of Shipping

Design and specifications are subject to change without notice.

Fixed circuit breaker



Description

The **circuit breaker Series ME** is provided with an engaged latch mechanism with a trip-free feature housed in a steel frame construction. They are equipped with a hand operated drive mechanism, an electronic trip unit and auxiliary contacts. On request a wide range of accessories e.g. motor operated drive mechanism, auxiliary trips etc. can be ordered.

The **disconnecting switch Series MET** is identical with the circuit breaker but non automatic.

Degree of protection IP00, however IP54 can be achieved with an additional sealing kit for the door cut-out.

Terminations are available at the rear in horizontal or vertical plane, the design is interchangeable (ME637 to ME3207). Horizontal connection for stationary mounting and withdrawable technique are the same (ME1607 to ME3207). The devices ME4007/5007 are equipped with horizontal terminals.

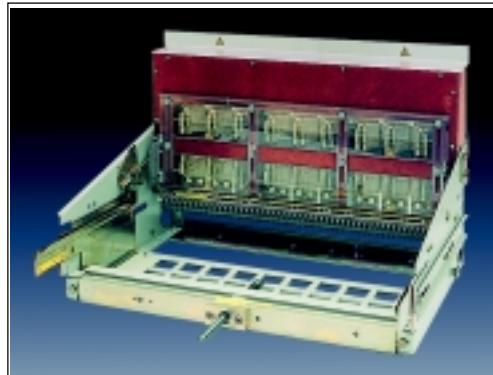
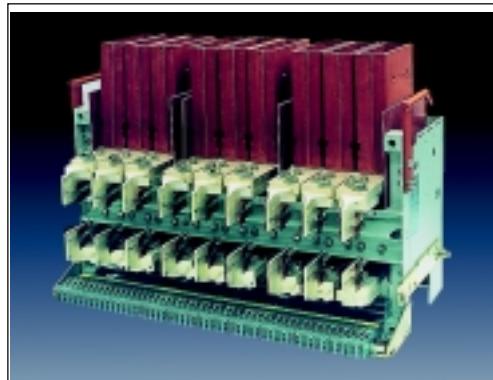
Installation

Base or rear mounting (vertical or horizontal traverse) is possible without additional parts. In combination with rear mounting and vertical terminations the use of two angular spacers is necessary to ensure the required creepage and clearance distances (ME637 to ME3207). The devices ME4007 to ME5007 allow only rear side mounting.

Power supply

Either on the upper or on the lower terminals.
Wiring of control circuits on plug- and socket connectors, finger-safe.

Withdrawable circuit breaker



Description

The Series ME withdrawable version consists of the both components circuit breaker and cradle.

The withdrawable version enables three defined positions

1. Disconnected

Both main and control circuits are disconnected.

2. Test

The main circuit contacts are open and the control circuit contacts are connected to allow functional tests of the device.

3. Connected

Both main and control circuit are connected.

The main contacts are provided with a full and positive personnel protection. The position of the circuit breaker within the cradle can be optionally indicated by position switches for monitoring and electrical interlocking. A mechanical interlock operates directly on the latch mechanism to prevent the circuit breaker being inserted or withdrawn in the closed position.

- Rated current up to 3200A

After locating on the integrated telescopic extension rails and locking in the disconnected position the circuit breaker remains in this position. The electrical connection of the main circuit is achieved by a separate movable contact system operated by a cranking handle. It is located in a movable frame within the cradle. The position of the circuit breaker behind the switchboard door is independent of the positions disconnected, test and connected.

The cradle is provided with a positively driven mechanical position indicator.

- Rated current 4000 to 6400A

After locating on the rails the circuit breaker is inserted or withdrawn by means of a cranking handle worm drive. For easier service or exchange of the circuit breaker an optional extension rail is available to draw out the breaker in front of the cradle.

Installation

- Rated current up to 3200A
Base mounting of the cradle, terminations at the rear in horizontal, vertical or combined plane. Wiring of the control circuits on plug and socket connectors on the upper left side, finger safe, accessible from the front. Automatic contact in the test and connected position. Optional position indication switches on the upper right side are accessible from the front as well.
- Rated current 4000 to 6400A
Base mounting of cradle, terminations at the rear in horizontal or combined (upper horizontal, lower vertical) plane (4000A), in horizontal plane (5000A and 6400A). Easy wiring of the control circuit contacts and position indication switches.

Power supply

Either on the upper or on the lower terminals.

Notes

Economy range N 3- and 4-pole

Frame size									
Series ME									
Rated insulation voltage U_i									
Rated impulse withstand voltage U_{imp}									
Pollution degree									
Rated voltage U_e									
Rated current I_e									
Protection degree IP00	Temperature								
For use in enclosures with <u>interior</u> temperatures of 40 to 60°C, the relevant IP00 values can be applied basically. Connection cross sections are to be rated to the rated current of the equipment.	40 °C (A)	630	800	1000	1250	1600	2000	2500	3200
	45 °C (A)	630	800	1000	1250	1600	1980	2500	3200
	50 °C (A)	630	800	1000	1250	1600	1920	2400	3200
	55 °C (A)	630	800	1000	1250	1600	1840	2360	3200
	60 °C (A)	630	800	1000	1250	1600	1760	2250	3100
Rated breaking capacity I_{on} according to IEC 947-2 (RMS values)									
Power supply to top or bottom									
$I_{cu} = I_{cs}$	3 AC 400/415V	(kA)	30	30	30	35	35	40	40
		$\cos \varphi$	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Rated making capacity I_{cm}									
Peak values	3 AC 400/415V	(kA)	63	63	63	73.5	73.5	84	84
Rated short time current I_{cw}	0.3s	(kA)	30	30	30	35	35	40	40
	1.0s	(kA)	30	30	30	35	35	40	40
	3.0s	(kA)	20	20	20	30	30	35	35
Selectivity up to	(kA)	30	30	30	35	35	40	40	
RMS values	$\cos \varphi$	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
Total breaking time									
via bse trip unit - s channel	(ms)	65	65	65	65	65	65	65	
via bse trip unit - k channel	(ms)	45	45	45	45	45	45	45	
Number of poles	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/-	
Mechanical endurance without maintenance	x10 ³ - ops.	5	5	5	5	5	2.5	2.5	
with maintenance	x10 ³ - ops.	10	10	10	10	10	5	5	
Switching frequency	ops. /h	60	60	60	60	60	30	30	
Total power losses (3-pole) at rated current and breaker at operating temperature									
fixed version	(W)	75	105	145	205	230	325	405	445
withdrawable version	(W)	110	162	234	344	444	503	600	708

10	20	30	40
637N	1607N	2007N	2507N
AC 1000V			
8 kV			
3			
Up to 3 AC 415V			
Fixed and withdrawable			
630	1600	2500	3200
630	1600	2500	3200
630	1600	2400	3200
630	1600	2360	3200
630	1600	2250	3100
30	35	40	40
0.25	0.25	0.25	0.25
63	73.5	84	84
30	35	40	40
30	35	40	40
20	30	35	35
30	35	40	40
0.25	0.25	0.25	0.25
65	65	65	65
45	45	45	45
3/4	3/4	3/4	3/-
5	5	2.5	2.5
10	10	5	5
60	60	30	30
75	230	405	445
110	444	600	708

Standard range S1/S 3- and 4-pole

Frame size	10	20	30	40				
Series ME	637S1	807S1	1007S1	1257S1	1607S1	2007S1	2507S1	3207S1
Rated insulation voltage U_i	AC 1000V							
Rated impulse withstand voltage U_{imp}	8 kV							
Pollution degree	3							
Rated voltage U_e	Up to 3 AC 690V							
Rated current I_e	Fixed and withdrawable							
Protection degree IP00	Temperature							
For use in enclosures with interior temperatures of 40 to 60°C, the relevant IP00 values can be applied basically. Connection cross sections are to be rated to the rated current of the equipment.	40 °C (A)	45 °C (A)	50 °C (A)	55 °C (A)	60 °C (A)			
Rated breaking capacity I_{cn} according to IEC 947-2 (RMS values)								
Power supply to top or bottom								
$I_{cu} = I_{cs}$	3 AC 400/415V	(kA)	$\cos \varphi$					
			$\cos \varphi$					
	3 AC 500V	(kA)	$\cos \varphi$					
			$\cos \varphi$					
	3 AC 690V	(kA)	$\cos \varphi$					
			$\cos \varphi$					
Rated making capacity I_{cm}								
Peak values	3 AC 400/415V	(kA)						
	3 AC 500V	(kA)						
	3 AC 690V	(kA)						
Rated short time current I_{cw}								
0.3s	(kA)							
1.0s	(kA)							
3.0s	(kA)							
Selectivity when "Switching ON"								
RMS values	$\cos \varphi$							
(making current trip type kse)								
Setting value kse-trip (RMS value)	(kA)							
Selectivity with breaker "ON"								
	$\cos \varphi$							
Total breaking time								
via kse trip	(ms)							
via bse trip unit - s channel	(ms)							
via bse trip unit - k channel	(ms)							
Number of poles								
Mechanical endurance								
without maintenance	$\times 10^3$ ops.							
with maintenance	$\times 10^3$ ops.							
Switching frequency	ops. /h							
Total power losses (3-pole)								
at rated current and breaker at operating temperature								
fixed version	(W)							
withdrawable version	(W)							

(1) Second value for 4th pole

10	20	30	40				
637S1	807S1	1007S1	1257S1	1607S1	2007S1	2507S1	3207S1
AC 1000V							
8 kV							
3							
Up to 3 AC 690V							
Fixed and withdrawable							
630	800	1000	1250	1600	2000	2500	3200/2000 ⁽¹⁾
630	800	1000	1250	1600	1980	2500	3200/1980
630	800	1000	1250	1600	1920	2400	3200/1920
630	800	1000	1250	1600	1840	2360	3200/1840
630	800	1000	1250	1600	1760	2250	3100/1760
III- IV-pole							
50	50	50	50	55	55	65	70 65/55 ⁽¹⁾
0.25	0.25	0.25	0.25	0.25	0.25	0.2	0.2 0.2/0.25
50	50	50	50	55	55	65	70 65/55
0.25	0.25	0.25	0.25	0.25	0.25	0.2	0.2 0.2/0.25
50	50	50	50	55	55	65	70 65/55
0.25	0.25	0.25	0.25	0.25	0.25	0.2	0.2 0.2/0.25
105	105	105	105	121	121	143	154 143/121 ⁽¹⁾
105	105	105	105	121	121	143	154 143/121
105	105	105	105	121	121	143	154 143/121
50	50	50	50	55	55	65	70 65/55 ⁽¹⁾
50	50	50	50	55	55	55	65 65/55
20	20	20	20	30	30	35	40 40/30
23	23	23	23	30	30	35	40
0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
35	35	35	35	45	45	52	60
50	50	50	50	55	55	65	70
0.25	0.25	0.25	0.25	0.2	0.2	0.2	0.2
20	20	20	20	20	20	20	20
65	65	65	65	65	65	65	65
45	45	45	45	45	45	45	45
3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
10	10	10	10	10	10	5	5
20	20	20	20	20	20	10	10
60	60	60	60	60	60	30	30
75	105	145	205	230	325	405	445
110	162	234	344	444	503	600	708

ME07 - Air circuit breakers

50	60	70
4007S	5007S	6307S
		Withdrawable
4000	5000	6400
4000	5000	6300
4000	5000	6300
-	-	-
-	-	-
100	100	100
0.2	0.2	0.2
100	100	100
0.2	0.2	0.2
100	100	100
0.2	0.2	0.2
220	220	220
220	220	220
220	220	220
100	100	100
100	100	100
55	55	55
-	-	-
-	-	-
-	-	-
100	100	100
0.2	0.2	0.2
-	-	-
50	50	50
40	40	40
3/4	3/-	3/-
2.5	2.5	2.5
5	5	5
30	30	30
540	670	-
705	975	1510

High performance range H 3- and 4-pole

Frame size		10	20	30	40				
Series ME		673H	807H	1007H	1275H	1607H	2007H	2507H	3207H
Rated insulation voltage U_i									
Rated impulse withstand voltage U_{imp}									
Pollution degree									
Rated voltage I_e									
Rated current I_e									
Protection degree IP00		Temperature							
For use in enclosures with interior temperatures of 40 to 60°C, the relevant IP00 values can be applied basically. Connection cross sections are to be rated to the rated current of the equipment.		40 °C (A)	45 °C (A)	50 °C (A)	55 °C (A)	60 °C (A)			
Rated breaking capacity I_{bn} according to IEC 947-2 (RMS values)	3 AC 400/415V	(kA)							
			cos φ						
	3 AC 440V	(kA)							
			cos φ						
	3 AC 500V	(kA)							
			cos φ						
	3 AC 690V	(kA)							
			cos φ						
	3 AC 1000V ⁽⁴⁾	(kA)							
			cos φ						
DC 220V, T = L/R = 15 ms ⁽¹⁾		(kA)							
DC 440V, T = L/R = 15 ms ⁽¹⁾		(kA)							
DC 750V, T = L/R = 15 ms ⁽¹⁾		(kA)							
Rated making capacity I_{cm}	3 AC 400/415V	(kA)							
	3 AC 440V	(kA)							
	3 AC 500V	(kA)							
	3 AC 690V	(kA)							
	3 AC 1000V	(kA)							
Rated short time current I_{cw}	0,3s	(kA)							
	1,0s	(kA)							
	3,0s	(kA)							
Selectivity up to (at ON operation as well)									
RMS values		cos φ							
Instantaneous short circuit trip type ks									
RMS values		(kA)							
Peak values		(kA)							
Total breaking time	via ks trip	(ms)							
	via bse trip unit - s channel	(ms)							
	via bse trip unit - k channel	(ms)							
Number of poles									
Mechanical endurance	without maintenance	x10 ³ - ops.							
	with maintenance	x10 ³ - ops.							
Switching frequency		ops. /h							
Total power losses (3-pole) at rated current and breaker at operating temperature									
fixed version		(W)							
withdrawable version		(W)							

10	20	30	40				
673H	807H	1007H	1275H	1607H	2007H	2507H	3207H
AC 1000V							
8 kV							
3							
Up to 3 AC 1000V / up to DC 750V ⁽¹⁾							
Fixed and withdrawable							
630	800	1000	1250	1600	2000	2500	3200/2000 ⁽³⁾
630	800	1000	1250	1600	1980	2500	3200/1980
630	800	1000	1250	1600	1920	2400	3200/1920
630	800	1000	1250	1600	1840	2360	3200/1840
630	800	1000	1250	1600	1760	2250	3100/1760
100 ⁽²⁾	100 ⁽²⁾	100 ⁽²⁾	100 ⁽²⁾	100	100	100	100/100 ⁽³⁾
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2/0.2
100 ⁽²⁾	100 ⁽²⁾	100 ⁽²⁾	100 ⁽²⁾	100	100	100	100/100
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2/0.2
70	70	70	70	80	80	90	90/80
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2/0.2
50	50	50	50	60	60	75	80/60
0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.2/0.25
25	25	25	25	35	35	40	50
0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
50	50	50	50	60	60	60	65/60
40	40	40	40	45	45	45	50/45
20	20	20	20	20	20	30	30/20
220	220	220	220	220	220	220	220/220
220	220	220	220	220	220	220	220/220
154	154	154	154	176	176	198	198/176
105	105	105	105	132	132	165	176/132
52.5	52.5	52.5	52.5	73.5	73.5	84	105/73.5
50	50	50	50	55	55	65	70/55
50	50	50	50	55	55	55	65/55
20	20	20	20	30	30	35	40/30
23	23	23	23	30	30	35	40/30
0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25/0.25
35	35	35	35	45	45	52	60/45
50	50	50	50	63	63	74	85/63
20	20	20	20	20	20	20	20
65	65	65	65	65	65	65	65
45	45	45	45	45	45	45	45
3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
10	10	10	10	10	10	5	5
20	20	20	20	20	20	10	10
60	60	60	60	60	60	30	30
75	105	145	205	230	325	405	445
110	162	234	344	444	503	600	708

(1) For DC applications see section **Air circuit breakers Series ME07 for DC Applications**

(2) Withdrawable version - Icu 80kA

(3) Second value for 4th pole

(4) Only 3-pole version on request with horizontal termination, power supply upper terminals only, see also **Air circuit breakers Series ME07 for AC 1000V on page 21**

ME07 - Air circuit breakers

Terminal dimensions and cross section of copper busbars

Frame size	10			20		30	40	50	60	70	
Series ME	637	807	1007	1257	1607	2007	2507	3207	4007	5007	6307
le (A)	630	800	1000	1250	1600	2000	2500	3200	4000	5000	6400
Terminals (mm)	40x20	40x20	40x20	40x20	60x20	60x20	80x20	130x20	190x20	255x20	3x120x12
Busbars (mm)	1x40x8	1x40x10	1x40x12	2x40x10	2x50x10	2x60x12	2x80x12	4x60x12	6x60x12	8x60x12	6x120x12
Copper black painted (mm ²)	320	400	480	800	1000	1440	1920	2880	4320	5760	8640

Electronic trip units type bse



The electronic trip units type bse 3-x rms and bse 4-x rms are designed for applications in networks with harmonics and comply with the standard IEC 947-2, Appendix F.

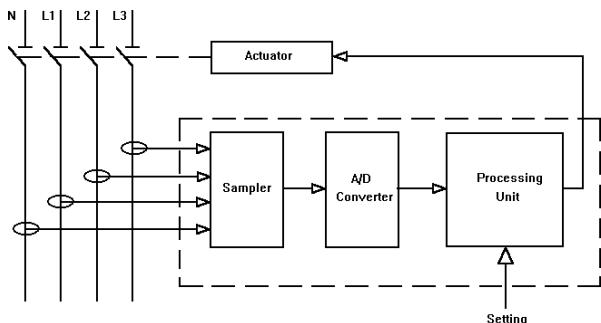
Construction

The electronic tripping system consists of the components

- trip unit and
- current transformers.

The components are separately integrated into the circuit breaker. The current transformers supply the protection device of the trip unit and generate the output signal for the measuring unit.

The principle of construction and function is shown in figure below.



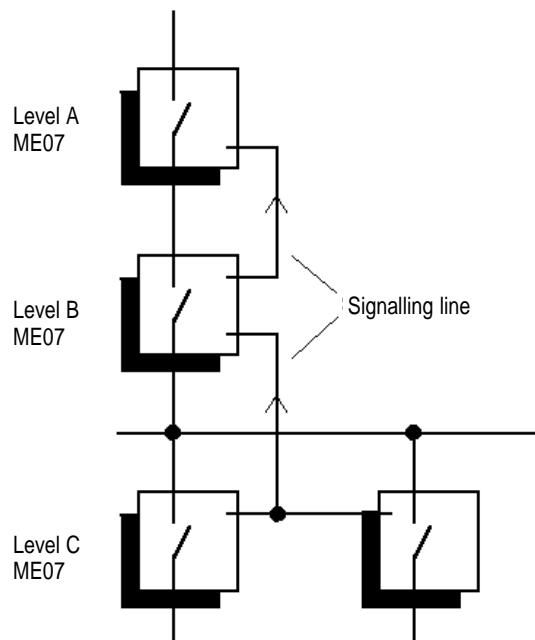
The sampler receives the output signal from the current transformer and transfers the information to the Analog - Digital - Converter. The processing unit analyses the signal and compares the results with the parameter settings. In case of a fault condition, e.g. overload, the activator will be energised to trip the circuit breaker.

The current transformer output signal for each phase is sampled 15 times per cycle in order to establish a TRUE RMS value of the current independent of the network, type of load or installation.

Protection

The electronic trip units offer the protection as specified below:

- Overload, current depending time delay - **b-Channel**
- Short-circuit, current independent time delay, adjustable - **s-Channel**
- Short-circuit, instantaneous - **k-Channel**
- Short-circuit with **ZSI - Zone selective interlock**. This interlocking feature monitors the signal states of circuit breakers connected in series to reduce the pre-set delay time to a minimum and optimise the scheme for selectivity (see figure below).
- Earth fault, current independent time delay, adjustable - **g-Channel**



Block diagram ZSI - Zone selective interlock

The trip units are available for 3 and 4 pole circuit breakers. The adaptation to the different rated currents is realised by the corresponding current transformers.

The current transformer for the 4th pole of the trip unit is fitted inside the 4 pole version of the circuit breaker. On request a separately mounting outside the breaker e.g. in the neutral phase is possible. Then the connection between current transformer and trip unit must be field installed by applicant.

Contacts for TRIP indication are provided as well as TRIP indication LED's for types **bse 3/4-3 rms** to **bse 3/4-6 rms**.

For additional functions like indication, parameterizing, messages and BUS-connection (if available) an auxiliary power supply is necessary.

Functions

Type rms	bse 3-1 rms	bse 3-2 rms	bse 3-3 rms	bse 3-3.1 rms	bse 3-4 rms	bse 3-5 rms	bse 3-6 rms	bse 3-7
rms								
b-Channel adjustable	•	•	•	•	•	•	•	•
Long time delay fixed on 20sec	•	•	—	—	—	—	—	—
Long time delay adjustable within 5...40 sec	—	—	•	•	•	—	—	—
Long time delay adjustable within 5...35 sec	—	—	—	—	—	—	•	•
Overload memory (ON/OFF)	—	—	—	—	—	—	•	—
Overload memory (ON/OFF) via BUS	—	—	—	—	—	—	—	•
Unbalanced load/ Phase loss sensitivity (ON/OFF)	—	—	—	—	—	—	•	—
Unbalanced load/ Phase loss sensitivity (ON/OFF) via BUS	—	—	—	—	—	—	—	•
Contact for indication TRIPPED	—	—	•	•	•	•	•	—
Indication TRIPPED via BUS	—	—	—	—	—	—	—	•
s-Channel adjustable	•	•	•	•	•	•	•	•
Time delay adjustable	—	•	•	•	•	•	•	•
I^2t -tripping characteristic (ON/OFF)	—	—	—	—	—	—	•	•
Contact for indication TRIPPED	—	—	•	•	•	•	•	•
Indication TRIPPED via BUS	—	—	—	—	—	—	•	•
Contact for immediate indication of s-channel threshold	—	—	•	•	•	•	•	•
k-Channel (ON/OFF)	—	—	•	•	•	•	•	•
Setting fixed	—	—	•	•	•	•	•	•
Setting adjustable	—	—	•	•	•	—	—	•
Contact for indication TRIPPED	—	—	•	•	•	•	•	—
Indication TRIPPED via BUS	—	—	—	—	—	—	—	•
g-Channel (Earth fault) (ON/OFF)	—	—	—	—	•	•	•	•
Time delay adjustable	—	—	—	—	•	•	•	•
I^2t -tripping characteristic (ON/OFF)	—	—	—	—	—	—	•	•
Contact for indication TRIPPED	—	—	—	—	•	•	•	—
Indication TRIPPED via BUS	—	—	—	—	—	—	—	•
v-Channel (pre-alarm value adjustable via BUS)	—	—	—	—	—	—	—	•
Time delay adjustable via BUS	—	—	—	—	—	—	—	•
Indication via BUS	—	—	—	—	—	—	—	•
Indications								
bs-Channel Contact for indication TRIPPED (approx. 20ms if spring system is charged)	0	0	—	—	—	—	—	—
b-Channel with LED indication and contact (1 NO) for indication TRIPPED	—	—	•	•	•	•	•	•
s-Channel with LED indication and contact (1 NO) for indication TRIPPED	—	—	•	•	•	•	•	•
k-Channel with LED indication and contact (1 NO) for indication TRIPPED	—	—	•	•	•	•	•	•
g-Channel with LED indication and contact (1 NO) for indication TRIPPED	—	—	—	—	•	•	•	•
RESET button	—	—	•	•	•	•	•	•
Remote reset (24...230V AC/DC)	—	—	—	—	—	•	—	—
Auxiliary voltage 24 V DC \pm 15%	—	—	•	•	•	•	•	•
60 to 230 V AC	—	—	•	•	•	—	—	—
ZSI (ON/OFF)	—	—	—	—	•	•	•	•
Watchdog (ON/OFF)	—	—	—	—	—	—	•	•
BUS connection	—	—	—	—	—	—	—	•
Test socket	—	—	—	—	—	—	—	•

o ₁ - accessory to be ordered separately	•	•	•	•	•	•	•	•
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—

Electronic trip units type bse

Channels and settings

Overload channel type b

bse 3/4-1 rms to bse 3/4-5 rms: centrally adjustable in 10 steps within 0.4 to 1.0 I_{ct} (I_{ct} = rated current of current transformer)

bse 3/4-6 rms: centrally adjustable in 10 steps within 0.45 to 1.0 I_{ct}

bse 3/4-7 rms: adjustable via bus or RS-232 within 0.5 to 1.0 I_{ct}

Long time delay

bse 3/4-1 rms to bse 3/4-2 rms: fixed setting 20 sec

bse 3/4-3 rms to bse 3/4-6 rms: centrally adjustable in 8 steps within 5 to 40 sec.

bse 3/4-6 rms: centrally adjustable in 8 steps within 5 to 35 sec, OFF

bse 3/4-7 rms: adjustable via bus or RS-232 within 5 to 40 sec, ON/OFF switchable

Short-circuit channel type s

bse 3/4-1 rms to bse 3/4-5 rms

At I_e up to 1250A	within 1.5 to 14 times I_{ct} in 14 steps
2500A	within 1.5 to 8 times I_{ct} in 10 steps
3200A	within 1.5 to 5 times I_{ct} in 7 steps
4000A	within 1.5 to 4 times I_{ct} in 6 steps
5000A	within 1.5 to 3 times I_{ct} in 3 steps
6400A	within 1.5 to 3 times I_{ct} in 3 steps

bse 3/4-6 rms

At I_e up to 1250A	within 1.5 to 14 times I_{ct} in 10 steps
2500A	within 1.5 to 8 times I_{ct} in 8 steps
3200A	within 1.5 to 5 times I_{ct} in 5 steps
4000A	within 1.5 to 4 times I_{ct} in 4 steps
5000A	within 1.5 to 3 times I_{ct} in 3 steps
6400A	within 1.5 to 3 times I_{ct} in 3 steps

bse 3/4-1 rms to bse 3/4-6 rms: centrally adjustable

bse 3/4-7 rms: adjustable via bus or RS232

Short time delay

bse 3/4-2 rms to bse 3/4-5 rms: centrally adjustable within 30 to 300ms

bse 3/4-6 rms: centrally adjustable within 0 to 300ms

bse 3/4-7 rms: adjustable via bus or RS-232 within 0 to 300ms

Short-circuit channel type k

Instantaneously acting short circuit channel, can be switched OFF
bse 3/4-3 rms to bse 3/4-5 rms: fixed setting

At I_e up to 1250A	18 times I_{ct}
2500A	10 times I_{ct}
3200A	7 times I_{ct}
6400A	10 times I_{ct}

bse 3/4-6 rms to bse 3/4-7 rms: centrally adjustable on trip unit

At I_e up to 1250A	within 1.5 to 18 times I_{ct} in 8 steps
2500A	within 1.5 to 10 times I_{ct} in 6 steps
3200A	within 1.5 to 7 times I_{ct} in 5 steps
6400A	within 1.5 to 10 times I_{ct} in 6 steps

Earth fault channel type g

Adjustable in 7 steps within 0.2 to 0.8 times I_{ct} (for use of settings 0.2 to 0.3 times I_{ct} , an external power supply is necessary) with a time delay function adjustable within 0.1 to 0.3 sec

bse 3/4-4 ms to bse 3/4-6 rms: centrally setting

bse 3/4-7 : setting via bus or RS-232

Pre-alarm channel type v

Available only on **bse 3/4-7 rms**, current independent delayed signal adjustable within 0.8 to 0.95 times of operating current setting I_b in steps of 0.05 times I_b , time delay adjustable within 25 to 100sec in 4 steps, setting via BUS or RS-232.

Trip indications

bse 3/4-1 rms to bse 3/4-2 rms: Trip indications by microswitch 1NO with automatic reset, short time contact 15 to 20ms if spring energy system charged.

bse 3/4-3 rms to bse 3/4-6 rms: Trip indication by LED and potential free, bistable relay contact 1NC of the relevant channel (b, s, k or g) that initiated tripping. An auxiliary power supply is necessary for reset. The trip unit is provided with a potential free monostable relay contact 1NC for the indication of s-channel threshold, ZSI and watchdog (bse3/4-6 only).

bse 3/4-7 rms: Messages on operation, failures, disturbances, alarms and maintenance requirements are available via BUS, e.g. trip indication on the relevant channels, s-channel pre-alarm, v-channel, ZSI messages and watchdog are additionally signalled by potential free relay contacts

Technical data

Power consumption

Type	Trip unit 24VDC $\pm 15\%$	Trip unit 60 ... 230VAC	Relays	LED
bse 3/4 - 3 rms to bse 3/4 - 5 rms	0.6W	0.6W	-	-
bse 3/4 - 6 rms	1.5W	-	-	-
bse 3/4 - 7 rms	3.6W	-	-	-
bse 3/4 - 3 rms to bse 3/4 - 7 rms	-	-	30mA	5mA

Trip indication switch

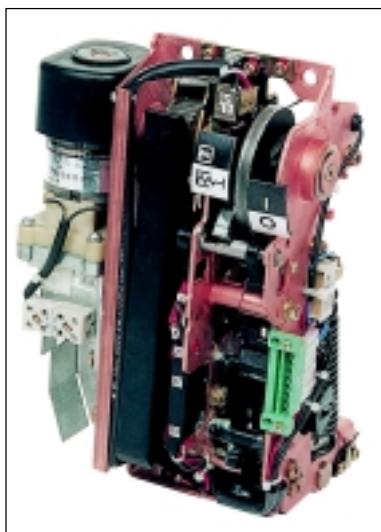
bse 3-1/4-1, bse 3-2/4-2 rms

Rated operating voltage U_c (V)	250	
AC - rated current ohmic (A)	6	
AC - rated current inductive (A)	2	

bse 3-3/4-3 to bse 3-7/4-7 rms

Rated operating voltage U_c (V)	24 to 110	24 to 230
Rated current AC-11 (A)	-	max. 1
Rated current DC-11 (mA)	200	-

Drives



The drive mechanism with an energy storage facility is equipped with integral service facilities for immediate actuation without any additional coupling parts, e.g. through a door cut-out. Opening and closing action of the circuit breaker is made by pushbuttons. A positive operated indicator of the switch position and spring charge condition is provided along with a wide field of visibility to the trip unit.

Mechanism: ON operation mechanically with ON pushbutton or electrically with closing coil.

OFF operation mechanically with OFF pushbutton or electrically with undervoltage- or shunt trip.

Interlock with cylindrical lock or padlock

All mechanisms provided with a closing coil are suitable for synchronisation applications.

Manual operated mechanism with storage type x2, xv

The spring energy storage is charged by a pumping handle. The closing action is performed mechanically by means of the ON pushbutton or electrically by actuating the closing coil from a remote position.

Indication switch type m3 - Spring energy system charged - optional

Indication switch type m4 - Breaker ready for closure - optional

Motor operated mechanism with storage type fv and automatic control unit

The spring energy storage is charged by a motor drive. The automatic control unit operating with a short control impulse (app. 20 ms) disconnects the motor from supply after the spring is charged. The remote ON-operation is performed by actuating the closing coil. Manual charging and ON or OFF operations are possible as well.

The indication "Spring energy system charged" is included in control unit, indication switch type m4 - "Breaker ready for closure" is optional available.

Five charging modes are available which can subsequently be changed in the field

Type fv1	Separate commands for charging and closing
Type fv2	Automatic charging after circuit breaker is opened.
Type fv3.1	Automatic charging after circuit breaker is closed with manual first-charging
Type fv3.2	Automatic charging after circuit breaker is closed with automatic first-charging
Type fv4	Automatic closing when spring is charged.

ME07 - Air circuit breakers

Drives (continued)

Technical data

Motor charging time of spring energy storage: 3 to 6 sec

Min. control impulse time: > 20 ms

Closing time: < 40 ms

Motor operated drive mechanism

Operating range	(U _c)	085 - 1.1						
Rated control voltage U _c	(V)	24	42	48	60	110 - 120	125	220 - 240
Current 50/60Hz								
Power input	(VA)	-	300	-	-	450	-	max. 500
Current input (making)	(A)	-	20	-	-	12.9	-	7.5
Current input (200ms)	(A)	-	7	-	-	3.8	-	2.7
Current DC								
Power input	(W)	400	-	410	420	440	500	max. 440
Current input (making)	(A)	32	-	21	19	11	12	5.5
Current input (200ms)	(A)	16.5	-	8.5	7	4	4	2

Closing coil

Operating range	(U _c)	0,85 - 1,1							
Rated control voltage U _c	(V)	24	42	48	60	110 - 120	125	220	220 - 240
Current 50/60Hz									
Power input	(VA)	350	350	350	350	350	-	-	350
Current input	(A)	14.6	8.3	7.3	5.8	3.2	-	-	1.5
Current DC									
Power input	(W)	185	-	185	185	185	185	185	-
Current input	(A)	7.7	-	3.8	3.1	1.7	1.5	0.8	-

Indication switch m3 - "Spring energy storage charged"

(potential free and potential tied)

Rated operating voltage U _c	(V)	30	120	240	250 ⁽¹⁾
AC - rated current					
Ohmic	(A)	-	10	7.5	6
Inductive ($\cos \varphi = 0,3$)	(A)	-	7.5	5	1.5
DC rated current					
Ohmic	(A)	10	-	-	-
Inductive ($L/R=7\text{ms}$)	(A)	7.5	-	-	-

(1) Valid only for manual operated drive mechanism

Indication switch m4 - "Breaker ready for closure"

Rated operating voltage U _c	(V)	24	50	110	220	250
AC - rated current						
Ohmic	(A)	-	-	-	-	5
Inductive	(A)	-	-	-	-	5
DC rated current						
Inductive	(A)	3	0.5	0.03	0.03	-

Auxiliary trips



Technical data

Shunt trip

Operating range	U_c	0.7 to 1.1
Actuation time min/max.		20 ms / 5 s
Rated control voltage U_c	(V)	24 42 48 60 110...120 125 220 220 - 240
Current 50/60Hz		
Power input	(VA)	350 350 350 350 350 - - 350
Current input	(A)	14.6 8.3 7.3 5.8 3.2 - - 1.5
Current DC		
Power input	(W)	185 - 185 185 185 185 - -
Current input	(A)	7.7 - 3.8 3.1 1.7 1.5 0.8 -

Undervoltage trip

continuous operation	U_c	100%
Operation range "Responding"	U_c	0.85 to 1.1
Operation range "Releasing"	U_c	0.7 to 0.35
Rated control voltage U_c	(V)	24 42 48 60 110 120/125 220 to 230 240
Current 50/60Hz AC/DC	(mA)	910 490 420 330 190 160 max. 90 80

Capacitor trip unit type "n"

Type n1	Rated voltage U_c 220/230V, operation range 0.85 to 1.1 U_c
Type n2	Rated voltage U_c 220/230V, operation range 0.0 to 1.1 U_c

Time delay unit type "c"

Rated voltage AC 50/60 Hz, 230V

Rated voltage AC 50/60 Hz, 110V, 220V, 380V, 400V, 440V, 500V with separate transformer

Accessories

Capacitor trip unit type "n"

- **Type n1** - internal version mounted in the enclosure of the trip unit, acting directly on the latch mechanism of the circuit breaker, no external shunt trip type "a" is necessary.
- **Type n2** - external version mounted in a plastic enclosure for separate fitting. A shunt trip type "a" 220V DC is necessary for tripping the circuit breaker (not included, please order separately).

Time delay unit type "c"

for undervoltage trip type r mounted in the steel enclosure type CK1 for separate fitting, delay time $t=1.5 \pm 0.5$ s. An undervoltage trip type "r" 220V DC is necessary for tripping the circuit breaker (not included, please order separately).

Auxiliary switches

The auxiliary switches are actuated directly by the cross bar and switch simultaneously with the main contacts.

Technical data

Auxiliary switch

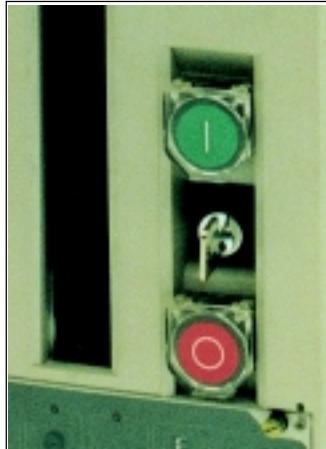
Rated operational voltage Ue	500V				
Rated insulation voltage Ui	1000V				
Continuous current Ith	10A				
Rated operating Voltage Uc (V)	24	60	110	220	230
AC11 duty (A)	-	-	-	-	10
DC11 duty (A)	10	4	2	1	-

Max. number of auxiliary contacts

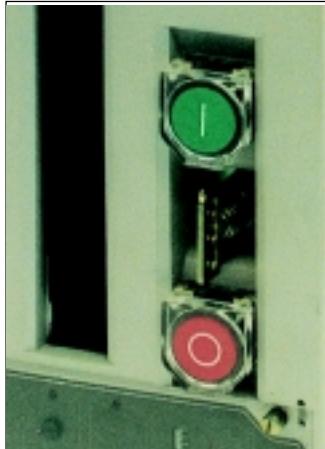
Key no.	Frame size	Breaker type	Plug no.	bse type	Aux. contacts
Z	10-40	fixed/withdr.	X1 / X2	3-1/3-2	5NO 6NC
X	10 - 40	fixed/ withdr.	X1 / X2	3-3	5NO 5NC
V	10 - 40	fixed/ withdr.	X1 / X2	3-3.1/3-4/3-5	4NO 4NC
U	10 - 40	fixed/ withdr.	X1 / X2	3-6	3NO 4NC
C	50 - 60	fixed	X1 / X2	3-1/3-2	5NO 6NC
D	50 - 60	fixed	X1 / X2	3-3	5NO 5NC
E	50 - 60	fixed	X1 / X2	3-3.1/3-4/3-5	4NO 4NC
F	50 - 60	fixed	X1 / X2	3-6	3NO 4NC
G	50 - 70	withdr.	X20	3-1/3-2	5NO 6NC
H	50 - 70	withdr.	X20	3-3	5NO 5 NC
J	50 - 70	withdr.	X20	3-3.1/3-4/3-5	4NO 4 NC
K	50 - 70	withdr.	X20	3-6	3NO 4 NC

For key numbers please refer to table on page ????

Locking devices



Cylindrical lock. Sealing cover



Padlock. Sealing cover

The locking devices type "y" are suitable for use on manual or motor operated mechanisms with a mechanical and if available an electrical interlock of the drive mechanism.

With cylindrical lock

Type y1	ON- and OFF push-button locked. The key is removable in both positions. The conditions of the breaker do not change when locked.
Type y2	ON - push-button locked. The key is removable in both positions. By means of locking the circuit breaker is switching off being in the ON position.
Type y3	ON - push-button locked. The key is removable in both positions. The conditions of the breaker do not change when locked.
Type y7	ON- and OFF push-button locked. The key is removable only in the locked position. Functions like y1
Type y8	ON - push-button locked. The key is removable only in the locked position. Functions like y2
Type y9	ON - push-button locked. The key is removable only in the locked position. Functions like y3

For 3 padlocks (bow diameter 6 to 8 mm)

Type y4	ON- and OFF push-button locked. Functions like y1
Type y5	ON - push-button locked. Functions like y2
Type y6	ON - push-button locked. Functions like y3

Sealing cover type "p"

Covers protect the ON and OFF push-buttons against unauthorised actuation.

Door adjustment frame type "ü"

The frame compensates tolerances between door cut out and front cover, suitable for fixed and/or withdrawable circuit breakers.

Sealing kit type "d"

Mounting kit to achieve protection degree IP54 in door cut-out for pumping handle and trip unit cover.

Door interlock type "q"

Interlock prevents opening of door when circuit breaker is closed, suitable for fixed installation (ME637 to ME3207)

Angular spacer

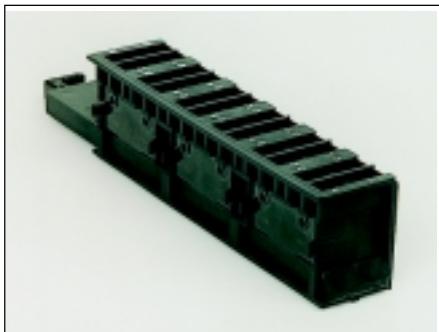
Two spacers are to be used for rear mounting in combination with vertical terminations to ensure the required creepage and clearance distances (ME637 to ME3207)

Bowden wire interlock type "g1"

Mounting kit for mechanical interlock of two circuit breakers for fixed installation (supplementary provide electrical interlock), installation alternatively side-by-side or superposed.
Max. length of bowden wire: 2300 mm

Withdrawable technique

Position indication switch



Auxiliary switches are provided for monitoring the positions DISCONNECTED - TEST - CONNECTED of the circuit breaker in the cradle and are suitable for electrical interlocking purposes.

ME637 to ME3207

A block is fitted on upright side of the cradle and contains max. 6 microswitches with 1CO contact each.

ME4007 to ME6307

Max. 4 auxiliary switches type HS5 with 2 NC and 2 NO each can be mounted inside the cradle. (max. 3 auxiliary switches possible with cradle having vertical terminations, ME4007S only).

Position indication switch

Type ME	637 to 3207			4007 to 6307		
Rated operating Voltage Uc (V)	30	50	125	250	250	400
AC - Rated current						
Ohmic (A)	-	-	25	25	-	25
Inductive (A)	-	-	15	15	-	-
DC - Rated current						
Ohmic (A)	15	3	0.5	0.25	6	-
Inductive (A)	5	1	0.5	0.25	-	-

Door interlocks

The interlocks prevent door opening when the circuit breaker is in the ON and TEST position.

ME637 to ME3207

Type Ily	Door (hinged left side) defeatable
Type Iln	Door hinged (left side) not defeatable
Type Iry	Door (hinged right side) defeatable ⁽¹⁾
Type Irr	Door (hinged right side) not defeatable ⁽¹⁾

(1) 2 auxiliary switches (1NC and 1NO) have been dropped

ME4007 to ME6307

Type ly	Door defeatable
Type ln	Door not defeatable

Locking facility type "wi"



The device prevents insertion of the cranking handle into the aperture by means of a cylindrical lock (ME637 to ME3207).

Locking facility type "we"

This mechanical interlock prevents insertion of the cranking handle into the aperture when circuit breaker is in the ON position (ME637 to ME3207).

Door sealing frame

Mounting kit for actuation the circuit breaker with door closed. The kit is provided with a cover to prevent insertion of cranking handle (ME4007S to ME6307S)

Bowden wire interlock type "g2"

Mounting kit for mechanical interlock of two circuit breakers for withdrawable pattern, (supplementary provide electrical interlock), installation alternatively side-by-side or superposed.

Max length of bowden wire

ME637 to ME3207: 1600 mm

ME4007 to ME6307: 2200 mm

Extension rail

Allows the withdrawal of the circuit breaker to the front of the cradle, e.g. for maintenance (ME4007 to ME6307).

ME07 - Air circuit breakers

Specify on the order

1. Type	Circuit breaker	<input type="checkbox"/> up to 500V	<input type="checkbox"/> up to 690V	<input type="checkbox"/> up to 1000V (only H-line)	
	Disconnecting switch	<input type="checkbox"/> up to 500V	<input type="checkbox"/> up to 690V	<input type="checkbox"/> up to 1000V (only H-line)	
2. Line	<input type="checkbox"/> N (up to 415V)	<input type="checkbox"/> S1/S (only ME4007/6307)	<input type="checkbox"/> H		
3. Rated current	<input type="checkbox"/> 250A <input type="checkbox"/> 400A <input type="checkbox"/> 630A <input type="checkbox"/> 800A <input type="checkbox"/> 1000A <input type="checkbox"/> 1250A <input type="checkbox"/> 1600A	<input type="checkbox"/> 2000A <input type="checkbox"/> 2500A <input type="checkbox"/> 3200A <input type="checkbox"/> 4000A <input type="checkbox"/> 5000A <input type="checkbox"/> 6400A			
4. No. of poles	<input type="checkbox"/> 3-pole <input type="checkbox"/> 4-pole up to 4000A	Neutral <input type="checkbox"/> left or	<input type="checkbox"/> right (up to 2500A)		
5. Version	<input type="checkbox"/> Fixed - Termination horizontal	<input type="checkbox"/> Fixed - Termination vertical	up to 3200A		
6. Drive	<input type="checkbox"/> Manual operated Type x2 <input type="checkbox"/> Motor operated with automatic control <input type="checkbox"/> Type fv1 <input type="checkbox"/> Type fv2 <input type="checkbox"/> Type fv3.1 <input type="checkbox"/> Type fv3.2 <input type="checkbox"/> Type fv4	<input type="checkbox"/> Manual operated Type xv			
7. Trip unit	<input type="checkbox"/> bse 3-1 rms <input type="checkbox"/> bse 3-2 rms <input type="checkbox"/> bse 3-3 rms <input type="checkbox"/> bse 3-3.1 rms <input type="checkbox"/> bse 3-4 rms <input type="checkbox"/> bse 3-5 rms <input type="checkbox"/> bse 3-6 rms <input type="checkbox"/> bse 3-7 rms <input type="checkbox"/> bse 4-1 rms <input type="checkbox"/> bse 4-2 rms <input type="checkbox"/> bse 4-3 rms <input type="checkbox"/> bse 4-3.1 rms <input type="checkbox"/> bse 4-4 rms <input type="checkbox"/> bse 4-5 rms <input type="checkbox"/> bse 4-6 rms <input type="checkbox"/> bse 4-7 rms	Control voltage see item 10			
8. Arc chute - Ceramic inserts	<input type="checkbox"/> only for S1 and H - Line up to 500V				
9. Auxiliary trips	<input type="checkbox"/> Undervoltage trip Control voltage see item 10 <input type="checkbox"/> Time delay unit Type c, AC 50/60 Hz 230V <input type="checkbox"/> Internal capacitor trip unit Type n1, AC 220/230V <input type="checkbox"/> External capacitor trip unit Type n2, AC 220/230V	<input type="checkbox"/> 1. Shunt trip	<input type="checkbox"/> 2. Shunt trip	<input type="checkbox"/> Other voltage _____ V	
10. Control voltage	AC 50/60 Hz 42V AC 50/60 Hz 110V AC 50/60 Hz 220V AC 50/60 Hz 230V AC 50/60 Hz 240V DC 24V DC 48V DC 60V DC 110V DC 125V DC 220V	Motor <input type="checkbox"/> <input type="checkbox"/>	Closing Coil <input type="checkbox"/> <input type="checkbox"/>	UV trip <input type="checkbox"/> <input type="checkbox"/>	1./2. Shunt trip <input type="checkbox"/> / <input type="checkbox"/> <input type="checkbox"/> / <input type="checkbox"/>
11. Indication switch	<input type="checkbox"/> Trip Unit bse 3-1/4-1 rms, bse 3-2/4-2 rms - Indication m5: b+s Channel tripped <input type="checkbox"/> Manual operated drive - Indication m3: spring energy storage charged <input type="checkbox"/> Manual, motor operated drive with automatic control - Indication m4: breaker ready for closure.				
12. Locking facilities	With cylindrical lock <input type="checkbox"/> Type y1 <input type="checkbox"/> Type y2 <input type="checkbox"/> Type y3 <input type="checkbox"/> Type y7 <input type="checkbox"/> Type y8 <input type="checkbox"/> Type y9 With 3 padlocks <input type="checkbox"/> Type y4 <input type="checkbox"/> Type y5 <input type="checkbox"/> Type y6 <input type="checkbox"/> Door interlock Type q <input type="checkbox"/> Bowden wire interlock Type g1				
13. Miscellaneous	<input type="checkbox"/> Sealing cover Type p <input type="checkbox"/> Door adjustment frame Type ü <input type="checkbox"/> Sealing kit Type d <input type="checkbox"/> Angular spacer				
14. Cradle	<input type="checkbox"/> Termination top/bottom vertical (ME637 tot ME3207) <input type="checkbox"/> Termination top/bottom horizontal (ME 637 to ME 6307) <input type="checkbox"/> Termination top horizontal/bottom vertical (ME 637 to ME4007S)				
15. Position indication switch for ME637 to 3207 for ME4007 to 6307	<input type="checkbox"/> 1CO <input type="checkbox"/> 2CO <input type="checkbox"/> 3CO <input type="checkbox"/> 4CO <input type="checkbox"/> 5CO <input type="checkbox"/> 6CO <input type="checkbox"/> Connected _____ <input type="checkbox"/> 1 HS 5 <input type="checkbox"/> 2 HS 5 <input type="checkbox"/> 3 HS 5 <input type="checkbox"/> 4 HS 5 <input type="checkbox"/> Connected _____ <input type="checkbox"/> Test _____ <input type="checkbox"/> Isolated _____				
16. Locking facilities - Withdrawable Version	Door interlock ME637 to ME3207 <input type="checkbox"/> Type lly <input type="checkbox"/> Type lln <input type="checkbox"/> Type lry <input type="checkbox"/> Type lrn ME4007 to ME6307 <input type="checkbox"/> Type ly <input type="checkbox"/> Type ln <input type="checkbox"/> Locking facility type wi (ME637 to ME3207) <input type="checkbox"/> Locking facility type we (ME637 to ME3207) <input type="checkbox"/> Bowden wire interlock Type g2				
17. Miscellaneous	<input type="checkbox"/> Door sealing frame (ME4007 to ME6307) <input type="checkbox"/> Extension rail (ME4007 to ME6307)				

Up to 1000V AC



Description

The air circuit breakers are suitable for use in distributions of high power levels up to a rated voltage of AC 1000V. For these applications the standard types ME07H are provided with modified heightened arc chutes to cover the requirements at the higher rated voltage.

Terminations are rear side suitable only for horizontal plane. Power supply can be either on upper or lower terminals.

The fixed version of the circuit breaker can be mounted on the base without additional parts.

A withdrawable version is not available.

For accessories eg. motor drives, trip units, auxiliary trips please refer to the pages 12-18.

Conformity

The circuit breakers type ME07 comply with the standard "Low-voltage switchgear and controlgear" VDE 0660 Part 101, respectively IEC 947-2.

Technical values

Frame size	
Series ME	
Rated insulation voltage U_i	
Rated impulse withstand voltage U_{imp}	
Pollution degree	
Rated voltage U_e	
Rated current I_e	
Protection degree IP00	Temperature
For use in enclosures with interior temperatures of 40 to 60°C, the relevant IP00 values can be applied basically. Connection cross sections are to be rated to the rated current of the equipment.	40 °C (A) 45 °C (A) 50 °C (A) 55 °C (A) 60 °C (A)
Rated breaking capacity I_{on} according to IEC 947-2 (RMS values)	
Power supply to top	
$I_{cu} = I_{cs}$	3 AC 1000V (kA)
Rated making capacity I_{cm}	
Peak values	3 AC 1000V (kA)

10	20	40	50				
637H	807H	1007H	1257H	1607H	2007H	3207H	4007S ⁽¹⁾⁽²⁾
AC 1000V							
8 kV							
3							
Up to 3 AC 1000V							
Fixed							
630	800	1000	1250	1600	2000	3200	4000
630	800	1000	1250	1600	1980	3200	4000
630	800	1000	1250	1600	1920	3200	4000
630	800	1000	1250	1600	1840	3200	—
630	800	1000	1250	1600	1760	3100	—
30	30	30	30	35	35	50	55
0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.2
63	63	63	63	73.5	73.5	105	121

(1) Power supply only on upper terminals.

(2) Rated currents 5000A and 6300A on request.

Up to 750V DC

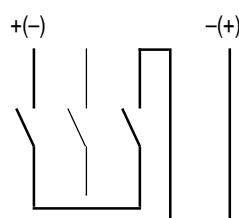


Description

For DC applications up to DC 750 V the standard 3-pole types MET07H - 690V version can be selected. An external overcurrent release operating on a shunt trip or on an undervoltage trip must be provided for overload and short circuit protection. The release and the auxiliary trip is to order separately. For overcurrent releases, see below.

Due to identical dimensions the circuit breakers are available as fixed and withdrawable types. For accessories e.g. motordrives, auxiliary trips, cradles, please refer to the pages 12-19.

Installation



The three pole breaker must be connected in the DC network as shown in the diagram.

Power supply

Power supply can be either on upper or lower terminals.

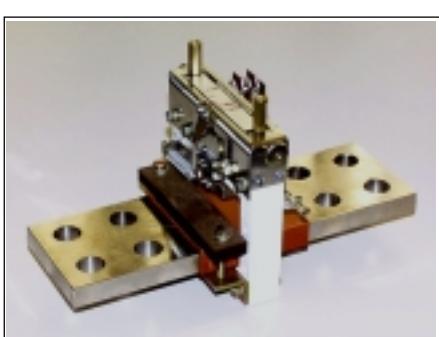
Conformity

The circuit breakers series ME07 comply with the standard "Low-voltage switchgear and controlgear" VDE 0660 Part 101, respectively IEC 947-2.

Technical values

Frame size	
Type ME	
Rated insulation voltage U_i	
Rated impulse withstand voltage U_{imp}	
Pollution degree	
Rated voltage U_e	
Rated current I_e	
Protection degree IP00	Temperature
For use in enclosures with interior temperatures of 40 to 60°C, the relevant IP00 values can be applied basically. Connection cross sections are to be rated to the rated current of the equipment.	40 °C (A) 45 °C (A) 50 °C (A) 55 °C (A) 60 °C (A)
Rated breaking capacity I_{cn} according to IEC 947-2	
Power supply to top	DC 220V, $T = L/R = 15 \text{ ms}$ (kA)
or bottom	DC 440V, $T = L/R = 15 \text{ ms}$ (kA)
$I_{cu} = I_{cs}$	DC 750V, $T = L/R = 15 \text{ ms}$ (kA)

10	20	30	40
637H	807H	1007H	1257H
DC 1000V			
8 kV			
3			
Up to DC 750V			
Fixed and withdrawable			
630	800	1000	1250
630	800	1000	1250
630	800	1000	1250
630	800	1000	1250
630	800	1000	1250
50	50	50	50
40	40	40	40
20	20	20	20
60	60	60	60
45	45	45	45
20	20	20	20
60	60	60	65
45	45	45	50
30	30	30	30



Overcurrent release for DC

The overcurrent release mounted separately consists of an electromagnetic system for short circuit protection operating on a micro switch (1CO).

Technical data

Overcurrent release			
Rated insulation voltage U_i	DC 1500V		
Rated voltage U_e	up to DC 1500V		
Rated current I_e	630-1250A	1600-3600A	1600-3600
Adjusted setting values (continuously)	800/1200/1800A	1600/2000/3000A	2500/3200/3600A

Micro switch

Rated insulation voltage U_i	(V)	380V
Continuous current I_{th}	(A)	10
Rated operating Voltage U_c	(V)	60 110 220
AC-11 duty	(A)	— — 4
DC-11 duty (with arc deflector)	(A)	3 0.6 0.3

Series MEG07 up to 1200V -1500V DC



Description

The air circuit breakers are suitable for use in DC distributions up to a rated voltage of DC 1200V (single pole breaking) and DC 1500V (two pole breaking in series). For these applications the standard 3-pole types MET07H are provided with modified heightened arc chutes to cover the requirements.

The circuit breaker type MEG07 is equipped with an external overcurrent release operating on a shunt trip (standard) or if requested on a undervoltage trip (accessory). Details of overcurrent release see page 22. The disconnecting switch type MEGT07 is identical with the circuit breaker type but non automatic. For accessories e.g. motordrives, auxiliary trips please refer to pages 12-18.

Installation

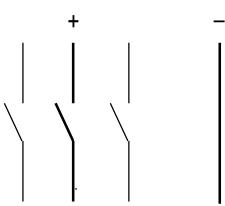
Terminations are rear side suitable only for horizontal plane. The circuit breaker can be mounted on the base without additional parts. A withdrawable version is not available.

Power supply

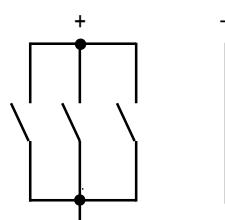
1200V: upper terminals / 1500V: either on upper or lower terminals.

The circuit breaker must be connected in the DC network as shown in the diagrams below.

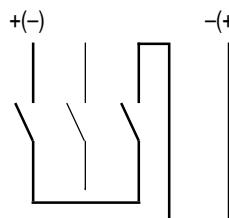
1200 V - Single pole breaking(2)



**1200 V - Single pole breaking
for MEG 3207/10 and 5007/20**



1500V - Single pole breaking - Two poles in series



Conformity

The circuit breakers type MEG07 comply with the standard "Low-voltage switchgear and controlgear" VDE 0660 Part 101, respectively IEC 947-2.

The disconnecting switch MEGT07 comply with the standard "Low-voltage switchgear and control gear" VDE 0660 Part 107, respectively IEC 947-3.

Technical values

Frame Size	10	20	40	50	60	70	10	20
Type MEG	1257	2007	3207	4007	5007 ⁽¹⁾	6307 ⁽¹⁾	3207/10	5007/20
Rated insulation voltage U_i	DC 1500V							
Rated impulse withstand voltage U_{imp}	8 kV							
Pollution degree	3							
Rated voltage U_e	Up to DC 1500V							
Rated current I_e	Fixed							
Protection degree IP00	Temperature							
For use in enclosures with interior temperatures of 40 to 60°C, the relevant IP00 values can be applied basically. Connection cross sections are to be rated to the rated current of the equipment.	40 °C (A) 45 °C (A) 50 °C (A) 55 °C (A) 60 °C (A)	2000	3200	4000	5000	6400	3200	5000
Rated breaking capacity I_{cn} according to IEC 947-2		1250	1980	3200	4000	5000	6300	3200
Power supply to top	DC 750V ⁽³⁾ (kA)	1250	1920	3200	4000	5000	6300	3200
	DC 1200V (kA)	1250	1840	3200				5000
$I_{cu} = I_{cs}$	DC 1500V (kA)	1250	1760	3100				

(1) On request

(2) Two pole breaking on request

(3) Version for stationary railway application acc. to EN 50123-2and -3, only MEGT for 750Vdc

Economy range N

Circuit breaker type ME07
3-pole, 4-pole up to 415V AC



Circuit breaker 3-pole, 4-pole equipped with:

- current transformer
- electronic trip unit type bse 3-1 rms
- handoperated mechanism type X2
- 11 auxiliary contacts 5 NO, 6 NC⁽¹⁾

Neutral conductor

Unprotected with bse 3-1 rms, alternatively 100%, 63% or 50% protection of main circuit with bse 4-1 rms.

Please refer to ordering details **electronic trip unit** on page 38

Frame size	Type	Rated current of breaker I _u A	Rated current of current transformer ICT A	Horizontal terminals Ref. No.	kg	Vertical terminals Ref. No.	kg
3-pole							
10	ME637N	630	250	758100	44	758101	47
10	ME637N	630	400	758102	44	758103	47
10	ME637N	630	630	758104	44	758105	47
10	ME800N	800	800	758106	45	758107	48
10	ME1007N	1000	1000	758108	45	758109	50
10	ME1257N	1250	1250	758110	46	758111	53
20	ME1607N	1600	1600	758112	52	758113	62
20	ME2007N	2000	2000	758114	52	758115	62
30	ME2507N	2500	2500	758116	76	758117	90
40	ME3207N	3200	3200	758118	89	758119	109
4-pole - Neutral conductor left							
10	ME637N/IV	630	250	758516	59	758388	65
10	ME637N/IV	630	400	758504	59	758394	65
10	ME637N/IV	630	630	758472	59	758400	65
10	ME800N/IV	800	800	758440	60	758408	66
10	ME1007N/IV	1000	1000	758997	60	758414	68
10	ME1257N/IV	1250	1250	758992	61	758421	71
20	ME1607N/IV	1600	1600	758267	73	758442	88
20	ME2007N/IV	2000	2000	758235	73	758448	88
30	ME2507N/IV	2500	2500	758166	88	758460	107
4-pole - Neutral conductor right							
10	ME637N/IV	630	250	758410	59	758411	65
10	ME637N/IV	630	400	758412	59	758413	65
10	ME637N/IV	630	630	758414	59	758415	65
10	ME800N/IV	800	800	758416	60	758417	66
10	ME1007N/IV	1000	1000	758418	60	758419	68
10	ME1257N/IV	1250	1250	758420	61	758421	71
20	ME1607N/IV	1600	1600	758422	73	758423	88
20	ME2007N/IV	2000	2000	758424	73	758425	88
30	ME2507N/IV	2500	2500	758426	88	758427	107

(1) For other trip unit types please refer to table on page 18

Standard range S1

Circuit breaker type ME07
3-pole, 4-pole up to 500VAC



Circuit breaker 3-pole, 4-pole equipped with:

- current transformer,
- electronic trip unit type bse 3-1 rms
- handoperated mechanism type X2
- 11 auxiliary contacts 5 NO, 6 NC⁽¹⁾

Neutral conductor

Unprotected with bse 3-1 rms, 100%, 63% or 50% protection (ME637 to 2507S1/IV), 63% or 50% protection (ME3207S1/IV) of main circuit with bse 4-1 rms.

Please refer to ordering details **electronic trip unit** on page 38

Frame size	Type	Rated current of breaker I _u A	Rated current of current transformer I _{CT} A	Horizontal terminals Ref. No.	kg	Vertical terminals Ref. No.	kg
3-pole							
10	ME637S1	630	250	758140	44	758141 On request	47
10	ME637S1	630	400	758142	44	758145	47
10	ME637S1	630	630	758144	44	758147	48
10	ME800S1	800	800	758146	45	758149	50
10	ME1007S1	1000	1000	758148	45	758151	53
10	ME1257S1	1250	1250	758150	46		
20	ME1607S1	1600	1600	758152	52	758153	62
20	ME2007S1	2000	2000	758154	52	758155	62
30	ME2507S1	2500	2500	758156	76	758157	90
40	ME3207S1	3200	3200	758158	89	758159	109
4-pole - Neutral conductor left							
10	ME637S1/IV	630	250	758164	59	58390	65
10	ME637S1/IV	630	400	758496	59	758395	65
10	ME637S1/IV	630	630	758464	59	758403	65
10	ME800S1/IV	800	800	758999	60	758409	66
10	ME1007S1/IV	1000	1000	758995	60	758417	68
10	ME1257S1/IV	1250	1250	758990	61	758423	71
20	ME1607S1/IV	1600	1600	758259	73	758444	88
20	ME2007S1/IV	2000	2000	758227	73	758449	88
30	ME2507S1/IV	2500	2500	758971	88	758461	107
40	ME3207S1/IV	3200/2000	3200/2000	758540	104	759541	128
4-pole - Neutral conductor right							
10	ME637S1/IV	630	250	758430	59	758431	65
10	ME637S1/IV	630	400	758432	59	758433	65
10	ME637S1/IV	630	630	758434	59	758435	65
10	ME800S1/IV	800	800	758436	60	758437	66
10	ME1007S1/IV	1000	1000	758438	60	758439	68
10	ME1257S1/IV	1250	1250	758440	61	758441	71
20	ME1607S1/IV	1600	1600	758442	73	758443	88
20	ME2007S1/IV	2000	2000	758444	73	758445	88
30	ME2507S1/IV	2500	2500	758446	88	758447	107

(1) For other trip unit types please refer to table on page 18

High performance range H

Circuit breaker type ME07
3-pole, 4-pole up to 500V AC



Circuit breaker 3-pole, 4-pole equipped with:

- current transformer
- electronic trip unit type bse 3-1 rms
- handoperated mechanism type X2
- 11 auxiliary contacts 5 NO, 6 NC⁽¹⁾

Neutral conductor

Unprotected with bse 3-1 rms, 100%, 63% or 50% protection (ME637 to 2507H/IV), 63% or 50% protection (ME3207H/IV) of main circuit with bse 4-1 rms.

Please refer to ordering details **electronic trip unit** on page 38

Frame size	Type	Rated current of breaker I _u A	Rated current of current transformer I _{CT} A	Horizontal terminals Ref. No.	kg	Vertical terminals Ref. No.	kg
3-pole							
10	ME637H	630	250	758190	44	78191	47
10	ME637H	630	400	758192	44	758193	47
10	ME637H	630	630	758194	44	758195	47
10	ME800H	800	800	758196	45	758197	48
10	ME1007H	1000	1000	758198	45	758199	50
10	ME1257H	1250	1250	758200	46	758201	53
20	ME1607H	1600	1600	758202	52	758203	62
20	ME2007H	2000	2000	758204	52	758205	62
30	ME2507H	2500	2500	758206	76	758207	90
40	ME3207H	3200	3200	758208	89	758209	109
4-pole - Neutral conductor left							
10	ME637H/IV	630	250	758519	59	758329	65
10	ME637H/IV	630	400	758514	59	758331	65
10	ME637H/IV	630	630	758482	59	758326	65
10	ME800H/IV	800	800	758383	60	758406	66
10	ME1007H/IV	1000	1000	758998	60	758323	68
10	ME1257H/IV	1250	1250	758386	61	758420	71
20	ME1607H/IV	1600	1600	758277	73	758188	88
20	ME2007H/IV	2000	2000	758981	73	758447	88
30	ME2507H/IV	2500	2500	758176	88	758126	107
40	ME3207H/IV	3200/2000	3200/2000	758543	104	758229	128
4-pole - Neutral conductor right							
10	ME637H/IV	630	250	758450	59	758451	65
10	ME637H/IV	630	400	758452	59	758453	65
10	ME637H/IV	630	630	758454	59	758455	65
10	ME800H/IV	800	800	758456	60	758457	66
10	ME1007H/IV	1000	1000	758458	60	758459	68
10	ME1257H/IV	1250	1250	758460	61	758461	71
20	ME1607H/IV	1600	1600	758462	73	758463	88
20	ME2007H/IV	2000	2000	758464	73	758465	88
30	ME2507H/IV	2500	2500	758466	88	758467	107

(1) For other trip unit types please refer to table on page 18

Standard range S1/S

Circuit breaker type ME07
3-pole, 4-pole up to 690V AC



Circuit breaker 3-pole, 4-pole equipped with:

- current transformer,
- electronic trip unit type bse 3-1 rms
- handoperated mechanism type X2
- 11 auxiliary contacts 5 NO, 6 NC⁽¹⁾

Neutral conductor

Unprotected with bse 3-1 rms, 100%, 63% or 50% protection (ME637 to 2507S1/IV; ME4007S/IV), 63% or 50% protection (ME3207S1/IV), of main circuit with bse 4-1 rms.

Please refer to ordering details **electronic trip unit** on page 38

Frame size	Type	Rated current of breaker I _u A	Rated current of current transformer ICT A	Horizontal terminals Ref. No.	kg	Vertical terminals Ref. No.	kg
3-pole							
10	ME637S1	630	250	758570	44	758571	47
10	ME637S1	630	400	758572	44	758573	47
10	ME637S1	630	630	758574	44	758575	47
10	ME800S1	800	800	758576	45	758577	48
10	ME1007S1	1000	1000	758578	45	758579	50
10	ME1257S1	1250	1250	758580	46	758581	53
20	ME1607S1	1600	1600	758582	52	758583	62
20	ME2007S1	2000	2000	758584	52	758585	62
30	ME2507S1	2500	2500	758586	76	758587	90
40	ME3207S1	3200	3200	758588	89	758589	109
50	ME4007S	4000	4000	758160	145	-	-
60	ME5007S	5000	5000	758162	175	-	-
70	ME6307S ⁽²⁾	6400	6400	758726	205	-	-
4-pole - Neutral conductor left							
10	ME637S1/IV	630	250	758592	59	758593	65
10	ME637S1/IV	630	400	758594	59	758595	65
10	ME637S1/IV	630	630	758596	59	758597	65
10	ME800S1/IV	800	800	758598	60	758599	66
10	ME1007S1/IV	1000	1000	758600	60	758601	68
10	ME1257S1/IV	1250	1250	758602	61	758603	71
20	ME1607S1/IV	1600	1600	758604	73	758605	88
20	ME2007S1/IV	2000	2000	758606	73	758607	88
30	ME2507S1/IV	2500	2500	758608	88	758609	107
40	ME3207S1/IV	3200/2000	3200/2000	758610	104	758611	128
50	ME4007S/IV	4000	4000	758542	175	-	-
4-pole - Neutral conductor right							
10	ME637S1/IV	630	250	758612	59	758613	65
10	ME637S1/IV	630	400	758614	59	758615	65
10	ME637S1/IV	630	630	758616	59	758617	65
10	ME800S1/IV	800	800	758618	60	758619	66
10	ME1007S1/IV	1000	1000	758620	60	758621	68
10	ME1257S1/IV	1250	1250	758622	61	758623	71
20	ME1607S1/IV	1600	1600	758624	73	758625	88
20	ME2007S1/IV	2000	2000	758626	73	758627	88
30	ME2507S1/IV	2500	2500	758628	88	758629	107

(1) For other trip unit types please refer to table on page 18

(2) Only available with withdrawable technique

High performance range H

Circuit breaker type ME07
3-pole, 4-pole up to 690V AC



Circuit breaker 3-pole, 4-pole equipped with:

- current transformer
- electronic trip unit type bse 3-1 rms
- handoperated mechanism type X2
- 11 auxiliary contacts 5 NO, 6 NC⁽¹⁾

Neutral conductor

Unprotected with bse 3-1 rms, 100%, 63% or 50% protection (ME637 to 2507H/IV), 63% or 50% protection (ME3207H/IV) of main circuit with bse 4-1 rms.

Please refer to ordering details **electronic trip unit** on page 38

Frame size	Type	Rated current of breaker I _u A	Rated current of current transformer I _{CT} A	Horizontal terminals Ref. No.	kg	Vertical terminals Ref. No.	kg
3-pole							
10	ME637H	630	250	758630	44	758568	47
10	ME637H	630	400	758688	44	758633	47
10	ME637H	630	630	758634	44	758635	47
10	ME800H	800	800	758636	45	758637	48
10	ME1007H	1000	1000	758638	45	758639	50
10	ME1257H	1250	1250	758640	46	758641	53
20	ME1607H	1600	1600	758642	52	758643	62
20	ME2007H	2000	2000	758644	52	758645	62
30	ME2507H	2500	2500	758646	76	758647	90
40	ME3207H	3200	3200	758648	89	758649	109
4-pole - Neutral conductor left							
10	ME637H/IV	630	250	758650	59	758651	65
10	ME637H/IV	630	400	758652	59	758653	65
10	ME637H/IV	630	630	758654	59	758655	65
10	ME800H/IV	800	800	758656	60	758657	66
10	ME1007H/IV	1000	1000	758656	60	758659	68
10	ME1257H/IV	1250	1250	758658	61	758661	71
20	ME1607H/IV	1600	1600	758662	73	758663	88
20	ME2007H/IV	2000	2000	758664	73	758665	88
30	ME2507H/IV	2500	2500	758666	88	758667	107
40	ME3207H/IV	3200/2000	3200/2000	758668	104	758669	128
4-pole - Neutral conductor right							
10	ME637H/IV	630	250	758670	59	758671	65
10	ME637H/IV	630	400	758672	59	758673	65
10	ME637H/IV	630	630	758674	59	758675	65
10	ME800H/IV	800	800	758676	60	758677	66
10	ME1007H/IV	1000	1000	758678	60	758679	68
10	ME1257H/IV	1250	1250	758680	61	758681	71
20	ME1607H/IV	1600	1600	758582	73	758683	88
20	ME2007H/IV	2000	2000	758684	73	758685	88
30	ME2507H/IV	2500	2500	758686	88	758687	107

(1) For other trip unit types please refer to table on page 18

High performance range H Standard range S

Circuit breaker type ME07
3-pole, up to 1000V AC



Frame size	Type	Rated current of breaker I _u A	Rated current of current transformer I _{CT} A	Vertical terminals Heightened arc chute (extended breaking capacity)	Ref. No.	kg	
3-pole							
10	ME637H	630	250	784161	57		
10	ME637H	630	400	784162	57		
10	ME637H	630	630	784163	57		
10	ME800H	800	800	784164	58		
10	ME1007H	1000	1000	784165	58		
10	ME1257H	1250	1250	784166	59		
20	ME1607H	1600	1600	784167	65		
20	ME2007H	2000	2000	784168	65		
40	ME3207H	3200	3200	784169	113		
50	ME4007S	4000	4000	784170	190		
60	ME5007S	5000	5000	784171	233		
70	ME6307S	6400	6400	784172	266		

Circuit breaker 3-pole equipped with:

- current transformer
- electronic trip unit type bse 3-1 rms
- handoperated mechanism type X2
- 11 auxiliary contacts 5 NO, 6 NC⁽¹⁾
(without current transformer and electronic trip unit)

(1) For other trip unit types please refer to table on page 18

Economy range N

Disconnecting switch type MET07
3-pole, 4-pole, up to 415V AC



Disconnecting switch equipped with

- handoperated mechanism type X2
- 11 auxiliary contacts 5 NO, 6 NC
(without current transformer and electronic trip unit)

Frame size	Type	Rated current of switch I _u A	Horizontal terminals Ref. No.		Vertical terminals Ref. No.	
3-pole						
10	MET637N	630	758000	40	758001	43
10	MET800N	800	758002	41	758228	44
10	MET1007N	1000	758004	41	758005	46
10	MET1257N	1250	758006	42	758007	48
20	MET1607N	1600	758008	48	758009	58
20	MET2007N	2000	758010	48	758011	58
30	MET2507N	2500	758012	71	758013	85
40	MET3207N	3200	758014	83	758015	102
4-pole - Neutral conductor left						
10	MET637N/IV	630	758984	45	758370	61
10	MET800N/IV	800	758256	46	758375	62
10	MET1007N/IV	1000	758222	46	758380	64
10	MET1257N/IV	1250	758358	47	758426	67
20	MET1607N/IV	1600	758315	69	758433	84
20	MET2007N/IV	2000	758217	69	758452	84
30	MET2507N/IV	2500	758969	83	759304	102
4-pole - Neutral conductor right						
10	MET637N/IV	630	758360	45	758361	61
10	MET800N/IV	800	758362	46	758363	62
10	MET1007N/IV	1000	758364	46	758365	64
10	MET1257N/IV	1250	758366	47	758367	67
20	MET1607N/IV	1600	758368	69	758369	84
20	MET2007N/IV	2000	758370	69	758371	84
30	MET2507N/IV	2500	758372	83	758373	102

MET07 - Order codes

Standard range S1

Disconnecting switch type MET07
3-pole, 4-pole, up to 500V AC



Disconnecting switch equipped with

- handoperated mechanism type X2
- 11 auxiliary contacts 5 NO, 6 NC (without current transformer and electronic trip unit)

Frame size	Type	Rated current of breaker I _u A	Horizontal terminals Ref. No.	kg	Vertical terminals Ref. No.	kg
3-pole						
10	MET637S1	630	758016	40	758017	43
10	MET800S1	800	758018	41	758019	44
10	MET1007S1	1000	758020	41	758021	46
10	MET1257S1	1250	758022	42	758023	48
20	MET1607S1	1600	758024	48	758025	58
20	MET2007S1	2000	758026	48	758027	58
30	MET2507S1	2500	758028	71	758029	85
40	MET3207S1	3200	758030	83	758031	102
4-pole - Neutral conductor left						
10	MET637S1/IV	630	758268	45	758983	61
10	MET800S1/IV	800	758248	46	758231	62
10	MET1007S1/IV	1000	758214	46	758973	64
10	MET1257S1/IV	1250	758989	47	758427	67
20	MET1607S1/IV	1600	758307	69	758988	84
20	MET2007S1/IV	2000	758979	69	758453	84
30	MET2507S1/IV	2500	758459	83	758125	102
40	MET3207S1/IV	3200/2000	758080	98	758081	122
4-pole - Neutral conductor right						
10	MET637S1/IV	630	758374	45	758375	61
10	MET800S1/IV	800	758376	46	758377	62
10	MET1007S1/IV	1000	758378	46	758379	64
10	MET1257S1/IV	1250	758380	47	758381	67
20	MET1607S1/IV	1600	758382	69	758383	84
20	MET2007S1/IV	2000	758384	69	758385	84
30	MET2507S1/IV	2500	758386	83	758387	102

High performance range H

Disconnecting switch type MET07
3-pole, 4-pole, up to 500V AC



Disconnecting switch equipped with

- handoperated mechanism type X2
- 11 auxiliary contacts 5 NO, 6 NC
(without current transformer and electronic trip unit)

Frame size	Type	Rated current of switch I _n A	Horizontal terminals Ref. No.		Vertical terminals Ref. No.	
3-pole						
10	MET637H	630	758036	40	758037	43
10	MET800H	800	758038	41	758039	44
10	MET1007H	1000	758040	41	758041	46
10	MET1257H	1250	758042	42	758043	48
20	MET1607H	1600	758044	48	758045	58
20	MET2007H	2000	758046	48	758047	58
30	MET2507H	2500	758048	71	758049	85
40	MET3207H	3200	758050	83	758051	102
4-pole - Neutral conductor left						
10	MET637H/IV	630	758985	45	758257	61
10	MET800H/IV	800	758240	46	758223	62
10	MET1007H/IV	1000	758977	46	758631	64
10	MET1257H/IV	1250	758342	47	758316	67
20	MET1607H/IV	1600	758299	69	758986	84
20	MET2007H/IV	2000	758975	69	758181	84
30	MET2507H/IV	2500	758132	83	758965	102
40	MET3207H/IV	3200/2000	758098	98	758099	122
4-pole - Neutral conductor right						
10	MET637H/IV	630	758388	45	758289	61
10	MET800H/IV	800	758390	46	758391	62
10	MET1007H/IV	1000	758392	46	758393	64
10	MET1257H/IV	1250	758394	47	758395	67
20	MET1607H/IV	1600	758396	69	758397	84
20	MET2007H/IV	2000	758398	69	758399	84
30	MET2507H/IV	2500	758400	83	758401	102

MET07 - Order codes

Standard range S1/S

Disconnecting switch type MET07
3-pole, 4-pole, up to 690V AC



Disconnecting switch equipped with

- handoperated mechanism type X2
- 11 auxiliary contacts 5 NO, 6 NC (without current transformer and electronic trip unit)

Frame size	Type	Rated current of breaker I _U A	Horizontal terminals Ref. No.	kg	Vertical terminals Ref. No.	kg
3-pole						
10	MET637S1	630	759306	40	758471	43
10	MET800S1	800	759307	41	758473	44
10	MET1007S1	1000	758474	41	758475	46
10	MET1257S1	1250	758476	42	758477	48
20	MET1607S1	1600	758478	48	758479	58
20	MET2007S1	2000	759308	48	758481	58
30	MET2507S1	2500	759309	71	758483	85
40	MET3207S1	3200	758484	83	758485	103
50	MET4007S	4000	758032	138	—	—
60	MET5007S	5000	758034	165	—	—
70	MET6307S ⁽¹⁾	6400	758518	200	—	—
4-pole - Neutral conductor left						
10	MET637S1/IV	630	758488	45	758489	61
10	MET800S1/IV	800	758491	46	758490	62
10	MET1007S1/IV	1000	758492	46	758493	64
10	MET1257S1/IV	1250	759310	47	758495	67
20	MET1607S1/IV	1600	759311	69	758497	84
20	MET2007S1/IV	2000	758498	69	758499	84
30	MET2507S1/IV	2500	758500	83	758501	102
40	MET3207S1/IV	3200/2000	759312	98	758503	122
50	MET4007S/IV	4000	758082	165	—	—
4-pole - Neutral conductor right						
10	MET637S1/IV	630	758504	45	758505	61
10	MET800S1/IV	800	758506	46	758507	62
10	MET1007S1/IV	1000	758508	46	758509	64
10	MET1257S1/IV	1250	758510	47	758511	67
20	MET1607S1/IV	1600	758512	69	758513	84
20	MET2007S1/IV	2000	758514	69	758515	84
30	MET2507S1/IV	2500	758516	83	758517	102

(1) Only available with withdrawable technique.

High performance range H

Disconnecting switch type MET07
3-pole, 4-pole, up to 690V AC



Disconnecting switch equipped with

- handoperated mechanism type X2
- 11 auxiliary contacts 5 NO, 6 NC
(without current transformer and electronic trip unit)

Frame size	Type	Rated current of switch I _u A	Horizontal terminals Ref. No.		Vertical terminals Ref. No.	
3-pole						
10	MET637H	630	758520	40	758521	43
10	MET800H	800	758522	41	758523	44
10	MET1007H	1000	758524	41	758525	46
10	MET1257H	1250	758526	42	758527	48
20	MET1607H	1600	758528	48	758529	58
20	MET2007H	2000	758530	48	758531	58
30	MET2507H	2500	758532	71	758533	85
40	MET3207H	3200	758534	83	758535	102
4-pole - Neutral conductor left						
10	MET637H/IV	630	758536	45	758537	61
10	MET800H/IV	800	758538	46	758539	62
10	MET1007H/IV	1000	758540	46	758541	64
10	MET1257H/IV	1250	758542	47	758543	67
20	MET1607H/IV	1600	758544	69	758545	84
20	MET2007H/IV	2000	758546	69	758547	84
30	MET2507H/IV	2500	758548	83	758549	102
40	MET3207H/IV	3200/2000	758550	98	758551	122
4-pole - Neutral conductor right						
10	MET637H/IV	630	758552	45	758553	61
10	MET800H/IV	800	758554	46	758555	62
10	MET1007H/IV	1000	758556	46	758557	64
10	MET1257H/IV	1250	758558	47	758559	67
20	MET1607H/IV	1600	758560	69	758561	84
20	MET2007H/IV	2000	758562	69	758563	84
30	MET2507H/IV	2500	758564	83	758565	102

High performance range H Standard range S

Disconnecting switch type MET07
3-pole, up to 1000V AC



Frame size	Type	Rated current of switch I_u A	Horizontal terminals Heightened arc chute		
			Ref. No.	kg	
3-pole					
10	MET637H	630	784173	53	
10	MET800H	800	784174	54	
10	MET1007H	1000	784175	54	
10	MET1257H	1250	784176	55	
20	MET1607H	1600	784177	61	
20	MET2007H	2000	784178	61	
30	MET2507H	2500	784184	96	
40	MET3207H	3200	784179	107	
50	MET4007S ⁽¹⁾	4000	784180	183	
60	MET5007S ⁽¹⁾	5000	784181	223	
70	MET6307S ⁽¹⁾	6400	784182	261	

Disconnecting switch equipped with

- handoperated mechanism type X2
- 11 auxiliary contacts 5 NO, 6 NC
(without current transformer and electronic trip unit)

(1) On request

MEG07 / MEGT07 - Order codes

Circuit breaker type MEG07 Up to 1500V DC



Frame size	Type	Rated current of breaker I _u A	Horizontal terminals		Horizontal terminals	
			Ref. No.	kg	Ref. No.	kg
Up to 1200V						Up to 1500V
10	MEG1257	1250	784130	45	283-420-120	51
20	MEG2007	2000	784131	52	284-422-120	58
40	MEG3207	3200	784132	86	284-424-120	99
10	MEG3207/10	3200	784133	84	-	
50	MEG4007	4000	784134	154	784141	172
60	MEG5007	5000	784135	182	784142	207
20	MEG5007/20	5000	784136	178	-	
70	MEG6307	6400	784137	221	784143	245

Circuit breaker equipped with:

- handoperated mechanism type X2
- external overcurrent release
- shunt trip 230V AC
- 11 auxiliary contacts 5 NO, 6 NC

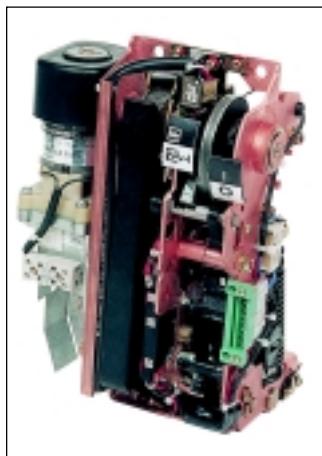
Disconnecting switch type MEGT07 Up to 1500V DC

Disconnecting switch equipped with:

- handoperated mechanism type X2
- 11 auxiliary contacts 5 NO, 6 NC
- (without external overcurrent release, shunt trip 230V AC)

Frame size	Type	Rated current of switch I _u A	Horizontal terminals		Horizontal terminals	
			Ref. No.	kg	Ref. No.	kg
Up to 1200V						Up to 1500V
10	MEGT1257	1250	784144	43	784152	49
20	MEGT2007	2000	784145	49	784153	55
40	MEGT3207	3200	784146	84	784154	96
10	MEGT3207/10	3200	784147	84	-	
50	MEGT4007	4000	784148	149	784155	167
60	MEGT5007	5000	784149	178	784156	202
20	MEGT5007/10	5000	784150	178	-	
70	MEGT6307	6400	784151	216	784157	241

Drives



Type	Ref. No.
Type x2 Manual operated mechanism with storage operation by manual ON/OFF button	Standard
Type xv Manual operated mechanism with storage, closing coil	
42V, AC 50/60Hz	758730
110V, AC 50/60Hz	758731
220V, AC 50/60Hz	758732
230V, AC 50/60Hz	758733
240V, AC 50/60Hz	758734
24V, DC	758735
48V, DC	758736
60V, DC	758737
110V, DC	758738
125V, DC	758739
220V, DC	758740
Type fv1 All type fv with automatic control unit Motor operated mechanism with storage Separate command for charging and closing	
42V, AC 50/60Hz	758741
110V, AC 50/60Hz	758742
220V, AC 50/60Hz	758743
230V, AC 50/60Hz	758744
240V, AC 50/60Hz	758745
24V, DC	758746
48V, DC	758747
60V, DC	758748
110V, DC	758749
125V, DC	758750
220V, DC	758751
Type fv2 Automatic charging after circuit breaker is opened	
42V, AC 50/60Hz	758752
110V, AC 50/60Hz	758753
220V, AC 50/60Hz	758754
230V, AC 50/60Hz	758755
240V, AC 50/60Hz	758756
24V, DC	758757
48V, DC	758758
60V, DC	758759
110V, DC	758760
125V, DC	758761
220V, DC	758762

Drives (continued)

Type fv3.1	Ref. No.
Automatic charging after circuit breaker is closed, with manual first charging	
42V, AC 50/60Hz	758763
110V, AC 50/60Hz	758764
220V, AC 50/60Hz	758765
230V, AC 50/60Hz	758766
240V, AC 50/60Hz	758767
24V, DC	758768
48V, DC	758769
60V, DC	758770
110V, DC	758771
125V, DC	758772
220V, DC	758773
Type fv3.2	
Automatic charging after circuit breaker is opened or closed, with automatic first charging	
42V, AC 50/60Hz	758774
110V, AC 50/60Hz	758775
220V, AC 50/60Hz	758776
230V, AC 50/60Hz	758777
240V, AC 50/60Hz	758778
24V, DC	758779
48V, DC	758780
60V, DC	758781
110V, DC	758782
125V, DC	758783
220V, DC	758784
Type fv4	
Automatic closing when spring is charged	
42V, AC 50/60Hz	758785
110V, AC 50/60Hz	758786
220V, AC 50/60Hz	758787
230V, AC 50/60Hz	758788
240V, AC 50/60Hz	758789
24V, DC	758790
48V, DC	758791
60V, DC	758792
110V, DC	758793
125V, DC	758794
220V, DC	758795

Electronic trip unit for AC



Type bse 3-x rms	Auxiliary Voltage	Aux. Switches	Cat. No.
bse 3-1 rms	n.a.	5s+6ö	bse 3-1 rms-XX
bse 3-2 rms	n.a.	5s+6ö	bse 3-2 rms-XX
bse 3-3 rms-24D	24V DC	5s+5ö	bse 3-3 rms-24D-XX
bse 3-3 rms-125A	60-125V AC	5s+5ö	bse 3-3 rms-125A-XX
bse 3-3 rms-230A	125-230V AC	5s+5ö	bse 3-3 rms-230A-XX
bse 3-3.1 rms-24D	24V DC	4s+4ö	bse 3-3.1 rms-24D-XX
bse 3-3.1 rms-125A	60-125V AC	4s+4ö	bse 3-3.1 rms-125A-XX
bse 3-3.1 rms-230A	125-230V AC	4s+4ö	bse 3-3.1 rms-230A-XX
bse 3-4 rms-24D	24V DC	4s+4ö	bse 3-4 rms-24D-XX
bse 3-5 rms-24D	24V DC	4s+4ö	bse 3-5 rms-24D-XX
bse 3-6 rms-24D	24V DC	3s+3ö	bse 3-6 rms-24D-XX
bse 3-7 rms-24D	24V DC	3s+3ö	bse 3-7 rms-24D-XX
Type bse 4-x rms⁽¹⁾			
bse 4-1 rms	n.a.	5s+6ö	bse 4-1 rms-XX
bse 4-2 rms	n.a.	5s+6ö	bse 4-2 rms-XX
bse 4-3 rms-24D	24V DC	5s+5ö	bse 4-3 rms-24D-XX
bse 4-3 rms-125A	60-125V AC	5s+5ö	bse 4-3 rms-125A-XX
bse 4-3 rms-230A	125-230V AC	5s+5ö	bse 4-3 rms-230A-XX
bse 4-3.1 rms-24D	24V DC	4s+4ö	bse 4-3.1 rms-24D-XX
bse 4-3.1 rms-125A	60-125V AC	4s+4ö	bse 4-3.1 rms-125A-XX
bse 4-3.1 rms-230A	125-230V AC	4s+4ö	bse 4-3.1 rms-230A-XX
bse 4-4 rms-24D	24V DC	4s+4ö	bse 4-4 rms-24D-XX
bse 4-5 rms-24D	24V DC	4s+4ö	bse 4-5 rms-24D-XX
bse 4-6 rms-24D	24V DC	3s+3ö	bse 4-6 rms-24D-XX
bse 4-7 rms-24D	24V DC	3s+3ö	bse 4-7 rms-24D-XX

Selection code XX

Frame size	Current transformer	3-pole bse 3-x rms	4-pole(1) bse 4-x rms
10	250A	02	02
10	400A	04	04
10	630A	06	06
10	800A	08	08
10	1000A	10	10
10	1250A	12	12
20	1600A	16	16
20	2000A	20	20
30	2500A	25	25
40	3200A	32	32 (63% protection)
50	4000A	40	40
60	5000A	50	-
70	6400A	64	-

Overcurrent release for DC

Overcurrent release for MEG 07 up to 1500V DC			
Rated current le	630-1250A	1600-3600A	1600-3600A
Adjusted setting values (continuously)	800/1200/1800A	1600/2000/3000A	2500/3200/3600A
Ref. No.	784158	784159	784160

Note - The MEG 07 must be provided with a shunt trip or undervoltage trip connected to the micro switch of the overcurrent release. Ordering details of shunt trip and undervoltage trip see next page.

(1) 100% protection for N-pole, 63% and 50% protection on request.

Auxiliary trips



	Ref. No.
Shunt trip type a	
42V, AC 50/60Hz	758818
110V, AC 50/60Hz	758819
220V, AC 50/60Hz	758820
230V, AC 50/60Hz	758821
240V, AC 50/60Hz	758822
24V, DC	758823
48V, DC	758824
60V, DC	758825
110V, DC	758826
125V, DC	758827
220V, DC	758828
Shunt trip type r	
42V, AC 50/60Hz	758829
110V, AC 50/60Hz	758830
220V, AC 50/60Hz	758831
230V, AC 50/60Hz	758832
240V, AC 50/60Hz	758833
24V, DC	758834
48V, DC	758835
60V, DC	758836
110V, DC	758837
125V, DC	758838
220V, DC	758839
Time delay unit type c	
For undervoltage trip (undervoltage trip 220V DC required)	
Rated operating voltage:	
AC 50/60Hz, 230V, 220V DC	758843
AC 50/60Hz, 110V, with external transformer	758844
AC 50/60Hz, 380V, with external transformer	758845
AC 50/60Hz, 400V, with external transformer	758846
AC 50/60Hz, 440V, with external transformer	758847
Capacitor trip unit type n1	
Internal version, no shunt trip type a necessary	
Operating range 0.85 ... 1.1 Uc	758848
Capacitor trip unit type n2	
External version, shunt trip type a 220V DC required	
Operating range 0.0 ... 1.1 Uc	758849

Indication switches

Type	Ref. No.	kg
Trip indication switch type m5 For b+s-channel, 1 self resetting NO switch pulse actuation, quick make contact about 15 to 20 ms if spring system is charged, otherwise continuous contact (trip unit type bse 3/4-1 and bse 3/4-2 rms only)	758850	0.15
Indication switch type m3 "Spring energy system charged" for hand operated mechanism. With motor operated mechanism and automatic control unit indication always supplied, not available with microswitch controlled mechanism	758851	0.15
Indication switch type m4 "Breaker ready for closure". Indication: Breaker OFF, spring energy system charged, undervoltage trip if available energised for hand and motor operated mechanism, standard with microswitch controlled mechanism.	758852	0.15

Locking facilities

Position locking devices for hand and motor operated mechanism		
With cylindrical lock		
Type y1	ON and OFF push-button locked key removable in both positions	758853
Type y2	ON push-button locked key removable in both positions	758854
Type y3	ON push-button locked key removable in both positions	On request
Type y7	ON and OFF push-button locked key removable when locked	758855
Type y8	ON push-button locked key removable when locked	758856
Type y9	ON push-button locked key removable when locked	On request
For 3 padlocks		
Type y4	ON and OFF push-button locked	758857
Type y5	ON push-button locked	758858
Type y6	ON push-button locked	On request
Sealing cover type p		
Protection against unauthorized actuation of ON and OFF push-button		758859

Accessories

Type	E-Nr.	kg
Clear cover for trip unit type k For trip unit bse 3/4-x rms	564243	-
Door adjustment frame type ü Compensation of tolerances between door cutout and front cover	758860	-
Sealing kit type d Mounting kit to achieve IP54 in door cutout, for pumping handle and trip unit cover	758861	0.3
Door interlock type q Prevents opening of door when circuit breaker is closed (fixed version only)	758862	-
Angular spacer For rear mounting in combination with vertical termination (2 pieces required)	758863	-
Bowden wire interlock type g1 Mounting kit for mechanical interlock of 2 circuit breakers (fixed version), supplementary provide electrical interlock	758864	-
Ceramic inserts For arc chutes to reduce clearance distances (only for range S1 and H 500V) Frame sizes 10 ... 30	758840	-
Frame size 40	758841	-
Test set type P107 for electronic trip unit type bse3/4-X	758349	-
Test set type P107 rms for electronic trip unit type bse3/4-X rms	759999	-

Withdrawable technique

Cradle 3-pole, 4-pole



Cradle provided with personnel protection by positively activated shutter, positive mechanical indication of functional position of breaker.

ME637 to 3207: Integrated telescopic extension rails, padlocking facility against insertion of cranking handle, 3 socket connectors = 48 contacts for control circuit connection.
In version "v" and "k" the terminals are accessible from the front.

ME4007 to 6307: 50 control circuit contacts
Terminals are accessible from the front.

Cradle for circuit breaker type	Cradle type	Short-circuit capacity kA	Termination	E-Nr.	kg
3-pole					
ME367 to 1007 S1,N	T10v1	105	Upper and lower vertical	759305	40
ME637 to 1257 H,S1,N	T10v2	176	Upper and lower vertical	758241	40
ME1607 H, S1, N	T20v1	220	Upper and lower vertical	758242	47
ME2007 H, S1, N	T20v2	220	Upper and lower vertical	758243	47
ME2507 H, S1, N	T30v	220	Upper and lower vertical	758244	55
ME3207 H, S1, N	T40v	220	Upper and lower vertical	758245	80
ME637 to 1007 S1,N	T10w1	105	Upper and lower horizontal	758250	40
ME637 to 1257 H,S1,N	T10w2	176	Upper and lower horizontal	758251	40
ME1607 H, S1, N	T20w1	220	Upper and lower horizontal	758252	47
ME2007 H, S1, N	T20w2	220	Upper and lower horizontal	758253	47
ME2507 H, S1, N	T30w	220	Upper and lower horizontal	758254	55
ME3207 H, S1, N	T40w	220	Upper and lower horizontal	758255	80
ME4007 S	T50	220	Upper and lower horizontal	759544	80
ME5007 S	T60	220	Upper and lower horizontal	759545	65
ME6307 S	T70	220	Upper and lower horizontal	759546	80
ME637 to 1007 S1,N	T10k1	105	Upper horizontal, lower vertical	758260	40
ME637 to 1257 H,S1,N	T10k2	176	Upper horizontal, lower vertical	758261	40
ME1607 H, S1, N	T20k1	220	Upper horizontal, lower vertical	758262	47
ME2007 H, S1, N	T20k2	220	Upper horizontal, lower vertical	758263	47
ME2507 H, S1, N	T30k	220	Upper horizontal, lower vertical	758264	55
ME3207 H, S1, N	T40k	220	Upper horizontal, lower vertical	758265	80
ME4007 S	T50v	220	Upper horizontal, lower vertical	On request	80
4-pole					
ME637 to 1007 S1, N	T10v1/IV	105	Upper and lower vertical	758270	48
ME637 to 1257 H,S1,N	T10v2/IV	176	Upper and lower vertical	758271	48
ME1607 H, S1, N	T20v1/IV	220	Upper and lower vertical	758272	55
ME2007 H, S1, N	T20v2/IV	220	Upper and lower vertical	758273	55
ME2507 H, S1, N	T30v/IV	220	Upper and lower vertical	758274	58
ME3207 H, S1, N	T40v/IV	220	Upper and lower vertical	759546	92
ME637 to 1007 S1,N	T10w/IV	105	Upper and lower horizontal	758280	48
ME637 to 1257 H,S1,N	T10w2/IV	176	Upper and lower horizontal	758281	48
ME1607 H, S1, N	T20w1/IV	220	Upper and lower horizontal	758282	55
ME2007 H, S1, N	T20w2/IV	220	Upper and lower horizontal	758283	55
ME2507 H, S1, N	T30w/IV	220	Upper and lower horizontal	758284	58
ME3207 H, S1, N	T40w/IV	220	Upper and lower horizontal	758285	92
ME4007 S	T50/IV	220	Upper and lower horizontal	758286	65
ME637 to 1007 S1,N	T10k1/IV	105	Upper horizontal, lower vertical	758290	48
ME637 to 1257 H,S1,N	T10k2/IV	176	Upper horizontal, lower vertical	758291	48
ME1607 H, S1, N	T20k1/IV	220	Upper horizontal, lower vertical	758292	55
ME2007 H, S1, N	T20k2/IV	220	Upper horizontal, lower vertical	758293	55
ME2507 H, S1, N	T30k/IV	220	Upper horizontal, lower vertical	758294	58
ME3207 H, S1, N	T40k/IV	220	Upper horizontal, lower vertical	758295	92

Withdrawable technique

Accessories

Accessories for cradle

Control sockets

5 control sockets - 80 contacts + 1 sub-D socket (15 contacts)
for bse 3/4-7 rms (frame size 10...40)

758301

Position indication switch

Alternatively for indication of disconnected-,
test- and connected position

Frame sizes 10...40

1 switch 1CO

758302

2 switches 2 CO

758303

3 switches 3 CO

758304

4 switches 4 CO

759549

5 switches 5 CO

759306

6 switches 6 CO

759550

ME4007 to ME6307

1 switch 2 NO, 2 NC

759551

2 switches 4 NO, 4 NC

759552

3 switches 6 NO, 6 NC

759553

4 switches 8 NO, 8 NC

759554

Door interlocks

Prevents door opening when circuit breaker is in
ON and TEST position

ME637 to ME3207

Type lly Door (hinged left side) defeatable

758308

Type lln Door (hinged left side) not defeatable

758309

Type lry Door (hinged right side) defeatable

758310

Type lln Door (hinged right side) not defeatable

758311

ME4007 to ME6307

Type ly Door defeatable

759555

Type ln Door not defeatable

758324

Locking facility type wi

Cradle provided with cylindrical lock against insertion of
cranking handle (ME637 to ME3207)

758312

Locking facility type we

Mechanical interlock against insertion of cranking handle
when circuit breaker is in ON position (frame sizes 50...70)

758313

Extension rail (frame sizes 50...70)

758322

Accessories for circuit breaker

Door sealing frame

Provided with cover preventing insertion of cranking hand

758053

Bowden wire interlock type g2

Mounting kit for mechanical interlock of 2 circuit breakers

Supplementary provide an electrical interlock

Frame sizes 10...40

758314

Frame sizes 50...70

758323

Replacement parts

Contacts	Suitable for circuit breaker	Sets per pole ⁽²⁾	Ref. No.	kg
Set of main contacts ⁽¹⁾	ME637 to 1257 H, S1 ME1607 to 2507 H, S1 ME2507 H, S1 ME3207 H, S1 ME3207 H, S1/IV Neutral pole ME4007 S ME5007 S ME6307 S	1 1 1 2 1 3 4 4	758351 758352 758353 On request 758351 758344 758345 758346	1.5 2.1 2.9 4.2 2.1 0.6 0.6 0.2
Set of arcing contacts ⁽¹⁾ applicable up to 690V AC and 750V DC	ME637 to 1257 H, S1 ME1607 to 2507 H, S1 ME3207 H, S1 ME3207 H, S1/IV Neutral pole ME4007 S ME5007 to 6307 S	1 2 4 2 3 4	758350 758350 758350 758350 758343 758343	0.2 0.2 0.2 0.2 0.2 0.2
Set of arcing contacts ⁽¹⁾ applicable up to 1000V AC 1200V/1500V DC	ME637 to ME1257H, MEG1257 ME1607 to ME2007H, MEG2007 ME3207H, MEG3207 ME4007S, MEG4007 MEG50007S MEG6307S	1 1 2 3 4 4	Please refer to spare part catalogue	
Arc chutes	Suitable for circuit breaker	Pieces / pole	Ref. No.	kg
Arc chute without ceramic inserts, applicable up to 500V AC	ME637 to 1257 H, S1, N ME1607 to 2007 H, S1, N ME2507 H, S1, N ME3207 H, S1, N ME3207 H, S1/IV Neutral pole	1 1 1 2 1	758354 758355 758356 758355 758354	2.4 2.6 3.7 2.6 2.6
Arc chute with ceramic inserts, applicable up to 690V AC	ME637 to 1257 H, S1 ME1607 to 2007 H, S1 ME2507 H, S1 ME3207 H, S1 ME3207 H, S1/IV Neutral pole	1 1 1 2 1	758357 758358 758359 758358 758358	2.6 2.8 3.9 2.8 2.8
Arc chute applicable up to 690V AC	ME4007 S, ME4007S/IV ME5007... 6307S	3 4	758347 758347	2.0 2.0
Arc chute adaptor applicable up to 1000V AC, 1200V/1500V DC	ME637 to ME1257H, MEG1257 ME1607 to ME2007H, MEG2007 ME3207H, MEG3207 ME4007S, MEG4007 MEG5007 MEG6307	1 1 2 3 4 4	Please refer to spare part catalogue	
Arc chute heightend applicable up to 1000V AC, 1200V/1500V DC	ME637 to ME1257H, MEG1257 ME1607 to ME2007H, MEG2007 ME3207H, MEG3207 ME4007, MEG4007 MEG5007S MEG6307S	1 1 2 3 4 4	Please refer to spare part catalogue	

(1) Set contains all fitting parts, e.g. fixed and movable contacts, contact springs and screws.

Notes

ME07 - Trip curves

Type ME637 to ME6307

Trip units

type bse 3 - 1 rms to bse 3 - 5 rms
bse 4 - 1 rms to bse 4 - 5 rms

I_{CT} = primary current of the CT

Long time delay b

I_b = 0.40 to 1 x I_{CT}

Short time delay s

I _s = 1.5 to 14 x I _{CT}	I _{CT} = 250 to 1250A
I _s = 1.5 to 8 x I _{CT}	I _{CT} = 1600 to 2500A
I _s = 1.5 to 5 x I _{CT}	I _{CT} = 3200A
I _s = 1.5 to 4 x I _{CT}	I _{CT} = 4000A
I _s = 1.5 to 3 x I _{CT}	I _{CT} = 5000A
I _s = 1.5 to 3 x I _{CT}	I _{CT} = 6400A

Time delay for s-channel

t_s = 30 to 300 ms

Instantaneous k
(switchable on/off)

I _k = 18 x I _{CT}	I _{CT} = 250 .. 1250A
I _k = 10 x I _{CT}	I _{CT} = 1600 .. 2500A
I _k = 7 x I _{CT}	I _{CT} = 3200A
I _k = 10 x I _{CT}	I _{CT} = 4000A
I _k = 10 x I _{CT}	I _{CT} = 5000A
I _k = 10 x I _{CT}	I _{CT} = 6400A

Dynamical high speed short time trip unit k_s,
except ME4007 to ME6307

K_s = value according to frame size (ME07 H)
(see technical values)

Ground fault g

(only bse 3/4 - 4 rms and bse 3/4 - 5 rms)

t_g = 100 to 300 ms

I_g = 0.2 to 0.8 x I_{CT} I_{CT} = 250 to 6400A

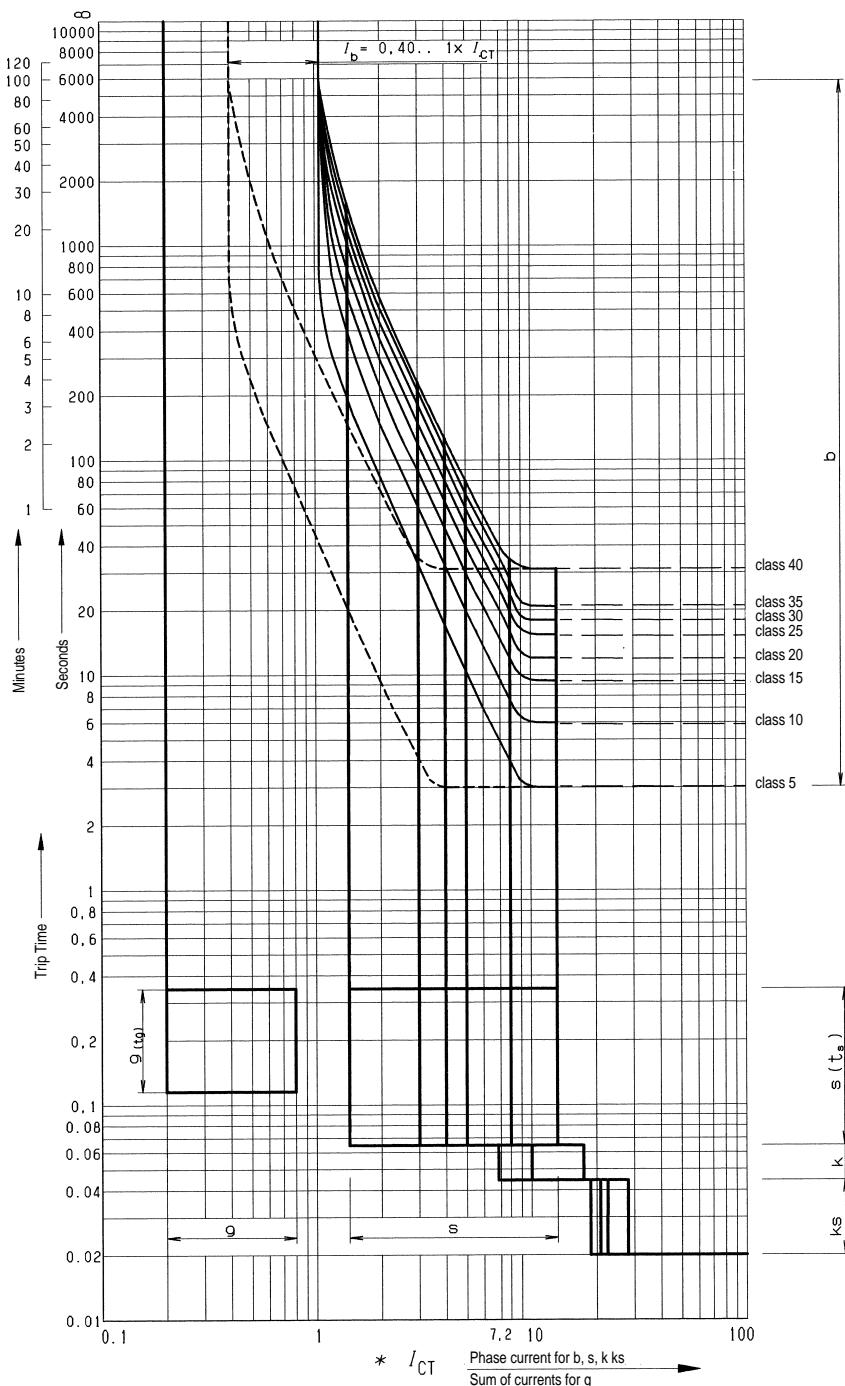
Values for b-channel

Tripping class

X x current setting (I _b)	5	10	15	20	25	30	35	40
1.5	164	328	492	656	820	984	1148	1272
2	74	148	222	296	368	440	510	578
3	30	60	90	120	150	180	210	228
4	17	34	51	68	85	102	116	126
5	10	20	30	40	50	60	70	80
6	7	14	21	28	35	42	49	56
7.2	5	10	15	20	25	30	35	40
8	4	8	12	16	20	24	28	31

All times in seconds

bse 3-1 rms and bse 4-2 rms: class 20 only
bse 4-1 rms and bse 4-2 rms: class 20 only



All curves from cold conditions.

ME07 - Trip curves

Type ME637 to ME6307

Trip units

type bse 3 - 6 rms to bse 3 - 7 rms
bse 4 - 6 rms to bse 4 - 7 rms

I_{CT} = primary current of the CT

Long time delay b

$I_b = 0.45$ to $1 \times I_{CT}$ bse 3-6 / 4-6 rms
 $I_b = 0.5$ to $1 \times I_{CT}$ bse 3-7 / 4-7 rms

Short time delay s

$I_s = 1.5$ to $14 \times I_{CT}$ $I_{CT} = 250$ to $1250A$
 $I_s = 1.5$ to $8 \times I_{CT}$ $I_{CT} = 1600$ to $2500A$
 $I_s = 1.5$ to $5 \times I_{CT}$ $I_{CT} = 3200A$
 $I_s = 1.5$ to $4 \times I_{CT}$ $I_{CT} = 4000A$
 $I_s = 1.5$ to $3 \times I_{CT}$ $I_{CT} = 5000A$
 $I_s = 1.5$ to $3 \times I_{CT}$ $I_{CT} = 6400A$

Time delay for s-channel

$t_s = 0 \dots 300$ ms

Instantaneous k
(switchable on/off)

$I_k = 4$ to $18 \times I_{CT}$ $I_{CT} = 250$ to $1250A$
 $I_k = 4$ to $10 \times I_{CT}$ $I_{CT} = 1600$ to $2500A$
 $I_k = 4$ to $7 \times I_{CT}$ $I_{CT} = 3200A$
 $I_k = 4$ to $10 \times I_{CT}$ $I_{CT} = 4000A$
 $I_k = 4$ to $10 \times I_{CT}$ $I_{CT} = 5000A$
 $I_k = 4$ to $10 \times I_{CT}$ $I_{CT} = 6400A$

Dynamical high speed short time trip unit k_s ,
except ME4007 to ME6307

k_s = value according to frame size (see table
technical values)

Ground fault g

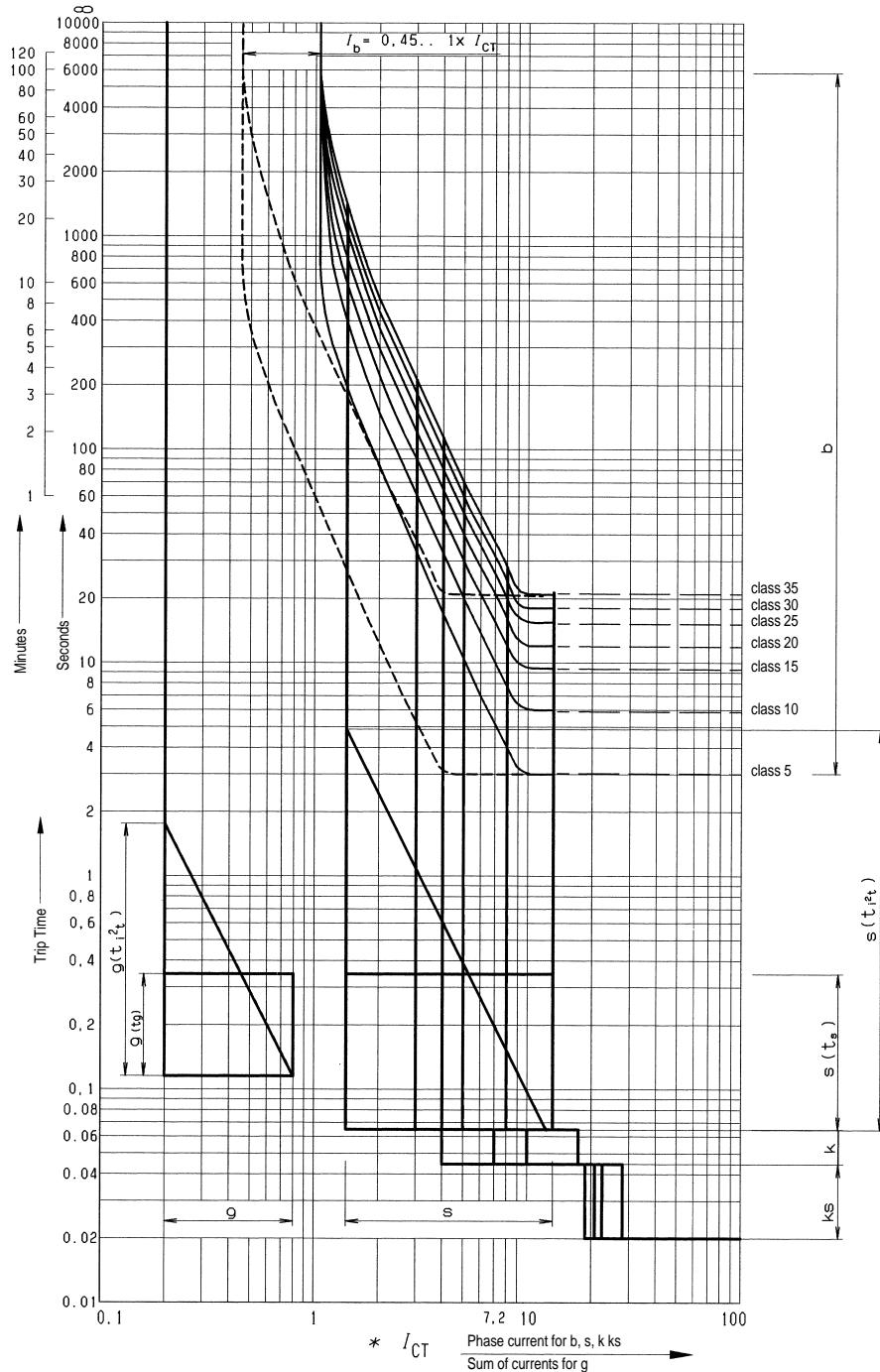
$t_g = 100$ to 300 ms

$I_g = 0.2$ to $0.8 \times I_{CT}$ $I_{CT} = 250$ to $6400A$

Values for b-channel

Tripping class

	5	10	15	20	25	30	35
1.2	371	742	1113	1484	1855	2226	2597
1.5	164	328	492	656	820	984	1148
2	74	148	222	296	368	440	510
3	30	60	90	120	150	180	210
4	17	34	51	68	85	102	116
5	10	20	30	40	50	60	70
6	7	14	21	28	35	42	49
7.2	5	10	15	20	25	30	35
8	4	8	12	16	20	24	28
All times in seconds							



All curves from cold conditions.

Basic connections

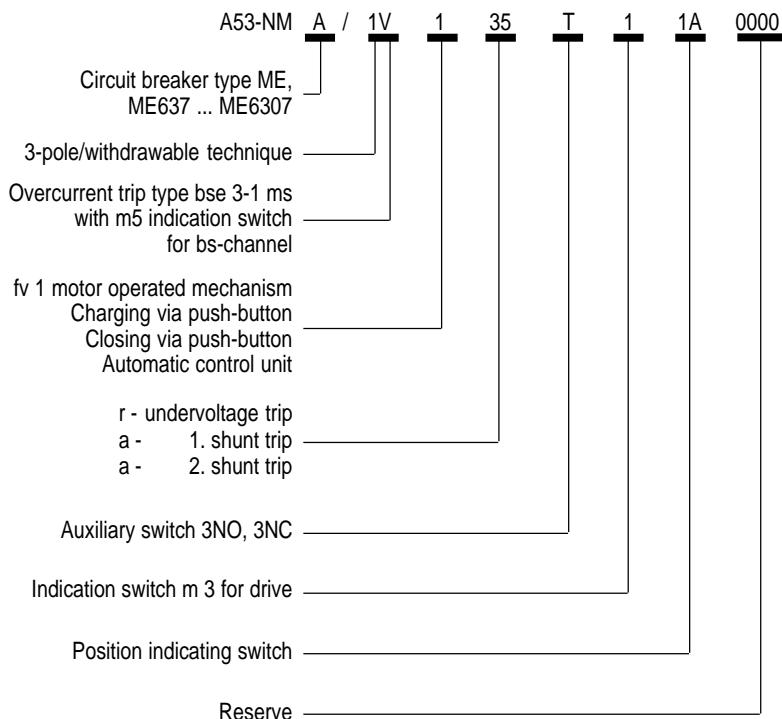
Definitions

The power circuit and the control part is presented as a typical circuit diagram. The overall control part is a combination of numbered basic diagrams for drives, trips and indicators. The number of the complete diagram can be derived by using the key numbers of the basic plan.

Diagram key

Key positions A53-NM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Range/breaker	.	.	/	A ... Z
No. of poles/ mounting arrangement															0 ... 9
Basic breaker															A ... Z
bse- overcurrent trip															A ... Z
Operating mechanism															00 ... ZZ
Trip device															00 ... ZZ
Auxiliary switch															0 ... Z
Indication switch on the drive															0 ... Z
Position indication switch on cradle															0 ... Z
Reserve															0 ... Z

Example: Complete diagram



ME07 - Wiring diagrams

Basic connections

Definitions

Key no.	Abbre-viation	Current	Designation and application
Key position 1 and 2 - Breaker/range			
A			Circuit breaker type ME637N to ME3207N, frame size 10 to 40 Circuit breaker type ME637S1 to ME3207S1, frame size 10 to 40 Circuit breaker type ME4007S to ME6307S, frame size 50 to 70 Circuit breaker type ME637H to ME3207H, frame size 10 to 40
			Circuit breaker type ME637N/IV to ME2507N/IV, frame size 10/IV to 40/IV Circuit breaker type ME637S1/IV to ME3207S1/IV, frame size 10/IV to 40/IV Circuit breaker type ME4007S/IV, frame size 50/IV Circuit breaker type ME637H/IV to ME3207H/IV, frame size 10/IV to 40/IV Circuit breaker type MEG1257 to ME6307, frame size 10 to 70
Key position 3 - No. of poles/mounting arrangement			
0			Circuit breaker 3-pole stationary mounting with/without electronic trip unit 3-pole, frame size 10 to 60
1			Circuit breaker 3-pole withdrawable version with/without electronic trip unit 3-pole, frame size 10 to 40
2			Circuit breaker 4-pole stationary mounting with/without electronic trip unit 3-pole, frame size 10 to 50
3			Circuit breaker 4-pole withdrawable version with/without electronic trip unit 3-pole, frame size 10 to 40
4			Circuit breaker 4-pole stationary mounting with electronic trip unit 4-pole, frame size 10 to 40
5			Circuit breaker 4-pole withdrawable version with electronic trip unit 4-pole, frame size 10 to 40
6			Circuit breaker 3-pole withdrawable version without electronic trip unit 3-pole, frame size 50 to 70
7			Circuit breaker 4-pole withdrawable version with/without electronic trip unit 3-pole, frame size 50
8			Circuit breaker 4-pole withdrawable version with electronic trip unit 4-pole, frame size 50
G			DC - circuit breaker, stationary mounting
Key position 4 - Electronic trip unit			
A			Circuit breaker without electronic trip unit (Disconnecting switch)
U			Circuit breaker with electronic trip unit type bse 3-1 rms/bse 4-1 rms
V			Circuit breaker with electronic trip unit type bse 3-1 rms/bse 4-1 rms and trip indication bs-channel m5
W			Circuit breaker with electronic trip unit type bse 3-2 rms/bse 4-2 rms
X			Circuit breaker with electronic trip unit type bse 3-2 rms/bse 4-2 rms and trip indication bs-channel m5
S			Circuit breaker with electronic trip unit type bse 3-3 rms/bse 4-3 rms
T			Circuit breaker with electronic trip unit type bse 3-3.1 rms/bse 4-3.1 rms
L			Circuit breaker with electronic trip unit type bse 3-4 rms/bse 4-4 rms
N			Circuit breaker with electronic trip unit type bse 3-5 rms/bse 4-5 rms
P			Circuit breaker with electronic trip unit type bse 3-6 rms/bse 4-6 rms
R			Circuit breaker with electronic trip unit type bse 3-7 rms/bse 4-7 rms
Key position 4 - DC overcurrent release			
A			Circuit breaker without overcurrent release (Disconnecting switch)
			Circuit breaker with overcurrent release

ME07 - Wiring diagrams

Basic connections

Definitions

Key no.	Abbre-viation	Current	Designation and application
Key position 5 and 6 - Operating mechanism			
10	x2		Hand operated mechanism with storage Charging mechanically, closing by push-button
1Z	xv		Hand operated mechanism Charging mechanically
1Y	xv	AC	Closing by push-button or electrically with closing coil
		DC	Hand operated mechanism Charging mechanically Closing by push button or electrically with closing coil
D5 D0 A5 A0 E5 E0 B5 B0 F5 F0 C5 C0 M5 M0 G5 G0 N5 N0 H5 H0 O5 O0 I5 I0 P5 P0 J5 J0 Q5 Q0 K5 K0 R5 R0 L5 L0	fv 1	f, su, v - AC f, su, v - DC ≤ 60V f, su, v - DC > 60V f, su - AC, v - AC f, su - AC, v - DC f, su - DC ≤ 60V, v - DC f, su - DC > 60V, v - DC f, su - DC ≤ 60V, v - AC f, su - DC > 60V, v - AC	Motor operated mechanism with storage and automatic control unit Separate command for pre-charging and closing Closing by push-button or electrically with closing coil
D6 D1 A6 A1 E6 E1 B6 B1 F6 F1 C6 C1 M6 M1 G6 G1 N6 N1 H6 H1 O6 O1 I6 I1 P6 P1 J6 J1 Q6 Q1 K6 K1 R6 R1 L6 L1	fv 2	f, su, v - AC f, su, v - DC < 60V f, su, v - DC > 60V f, su - AC, v - AC f, su - AC, v - DC f, su - DC ≤ 60V, v - DC f, su - DC > 60V, v - DC f, su - DC ≤ 60V, v - AC f, su - DC > 60V, v - AC	Motor operated mechanism with storage and automatic control unit Automatic pre-charging after OFF Closing by push-button or electrically with closing coil
D7 D2 A7 A2 E7 E2 B7 B2 F7 F2 C7 C2 M7 M2 G7 G2 N7 N2 H7 H2 O7 O2 I7 I2 P7 P2 J7 J2 Q7 Q2 K7 K2 R7 R2 L7 L2	fv 3.1	f, su, v - AC f, su, v - DC ≤ 60V f, su, v - DC > 60V f, su - AC, v - AC f, su - AC, v - DC f, su - DC ≤ 60V, V - DC f, su - DC > 60V, v - DC f, su - DC ≤ 60V, v - AC f, su - DC > 60V, v - AC	Motor operated mechanism with storage and automatic control unit Automatic pre-charging after ON with manual first-charging Closing by push-button or electrically with closing coil
D8 D3 A8 A3 E8 E3 B8 B3 F8 F3 C8 C3 M8 M3 G8 G3 N8 N3 H8 H3 O8 O3 I8 I3 P8 P3 J8 J3 Q8 Q3 K8 K3 R8 R3 L8 L3	fv 3.2	f, su, v - AC f, su, v - DC ≤ 60V f, su, v - DC > 60V f, su - AC, v - AC f, su - AC, v - DC f, su - DC ≤ 60V, v - DC f, su - DC > 60V, v - DC f, su - DC ≤ 60V, v - AC f, su - DC > 60V, v - AC	Motor operated mechanism with storage and automatic control unit Automatic pre-charging after ON and automatic first-charging Closing by push-button or electrically with closing coil
- - A9 A4 - - B9 B4 - - C9 C4 - - G9 G4 - - H9 H4 - - I9 I4 - - J9 J4 - - K9 K4 - - L9 L4	fv 4	f, su, v - AC f, su, v - DC ≤ 60V f, su, v - DC > 60V f, su - AC, v - AC f, su - AC, v - DC f, su - DC ≤ 60V, v - DC f, su - DC > 60V, v - DC f, su - DC ≤ 60V, v - AC f, su - DC > 60V, v - AC	Motor operated mechanism with storage and automatic control unit Automatic ON after pre-charging Indication "Spring energy system charged" not available
X X - - - - X X	signal contact untied potential signal contact tied potential		Operating mechanism Indication "Spring energy system charged"
- X - X	ME637/III to 2507/III, ME4007S/III to 6307S/III		Frame size
X - X -	ME637/IV to 4007/IV; ME3207/III		
S0 S1 S2 S3 S4 S5 S6 S7		v - AC, hand operated v - DC, hand operated f, v - AC f, v - DC f - AC, v - DC f - DC, v - AC f, v - AC f, v - DC	Frame size 10-30 Frame size 10-30 Frame size 10-30 Frame size 10-30 Frame size 10-30 Frame size 10-30 Frame size 40-60 Frame size 40-60

f = Motor for operating mechanism

su = automatic control unit

v = closing coil

ME07 - Wiring diagrams

Basic connections

Definitions

Key no.	Abbreviation	Current	Designation and application			
Key position 7 and 8 - Auxiliary trips						
00			Without auxiliary trip for hand- or motor-operated mechanism			
21	a	AC	1. Shunt trip for hand- or motor-operated mechanism			
22	a	DC	1. Shunt trip for hand- or motor-operated mechanism			
23	a	AC AC	1. Shunt trip for hand- or motor-operated mechanism 2. Shunt trip for hand- or motor-operated mechanism			
24	a	DC DC	1. Shunt trip for hand- or motor-operated mechanism 2. Shunt trip for hand- or motor-operated mechanism			
25	a a	AC DC	1. Shunt trip for hand- or motor-operated mechanism 2. Shunt trip for hand- or motor-operated mechanism			
26	a a	DC AC	1. Shunt trip for hand- or motor-operated mechanism 2. Shunt trip for hand- or motor-operated mechanism			
31	a r	AC AC	1. Shunt trip for hand- or motor-operated mechanism Undervoltage trip for hand- or motor-operated mechanism			
71	r	AC	Undervoltage trip for hand- or motor-operated mechanism			
72	r	DC	Undervoltage trip for hand- or motor-operated mechanism			
73	c	AC	Electrical delayed undervoltage trip without transformer			
A0	n2	AC/DC	2. Shunt trip with capacitor trip unit			
			All possible combinations of shunt and undervoltage trips on request			
Key position 9 - Auxiliary contacts						
Key no.			Frame size	Breaker type	Plug no.	bse type
Z			10-40	fixed/withdr.	X1/X2	3-1/3-2
X			10-40	fixed/withdr.	X1/X2	3-3
V			10-40	fixed/withdr.	X1/X2	3-3.1/3-4/3-5
U			10-40	fixed/withdr.	X1/X2	3-6
C			50-60	fixed	X1/X2	3-1/3-2
D			50-60	fixed	X1/X2	3-3
E			50-60	fixed	X1/X2	3-3.1/3-4/3-5
F			50-60	fixed	X1/X2	3-6
G			50-70	withdr.	X20	3-1/3-2
H			50-70	withdr.	X20	3-3
J			50-70	withdr.	X20	3-3.1/3-4/3-5
K			50-70	withdr.	X20	3-6
Key position 10 - Indication switch on operating mechanism						
0			without signalling			
1	m3		Signal "Spring energy storage system charged" for hand- and motor-operated mechanism			
2	m4		Signal "Breaker ready for closure for hand- and motor-operated mechanism			
3	m3+m4		Key number 1 + 2			
Key position 11 - Position indication switch on cradle - ME637 to ME3207						
00			without signalling			
11			1 indication switch 1CO - signal connected			
12			1 indication switch 1CO - signal test			
13			1 indication switch 1CO - signal disconnected			
1A			3 indication switches 1CO - signal connected - test- disconnected (1 in each position)			
1Y			6 indication switches 1CO - signal connected - test- disconnected (2 in each position)			
Key position 11 - Position indication switch on cradle - ME4007 to ME6307						
00			without signalling			
31			1 indication switch 2NC, 2NO - signal connected			
32			1 indication switch 2NC, 2NO - signal test			
33			1 indication switch 2NC, 2NO - signal disconnected			
3A			3 indication switches 2NC, 2NO - signal connected - test- disconnected (1 in each position)			

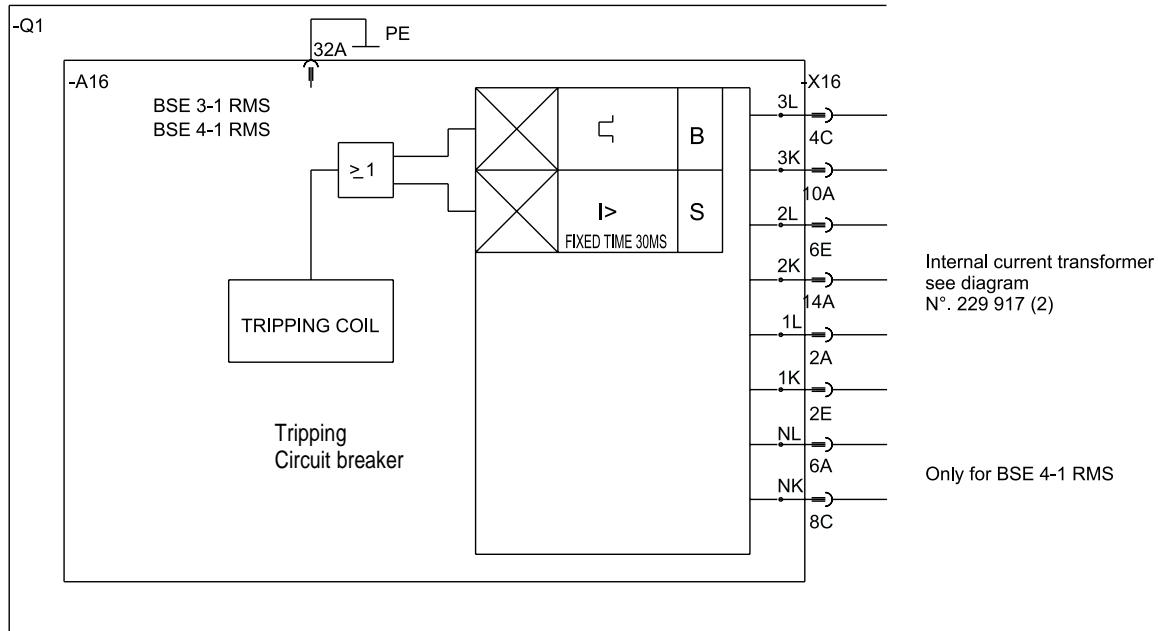
ME07 - Wiring diagrams

ME 637...3207, ME 4007...ME 6307

Key position 4

Electronic trip unit type bse 3-1 rms / bse 4-1 rms

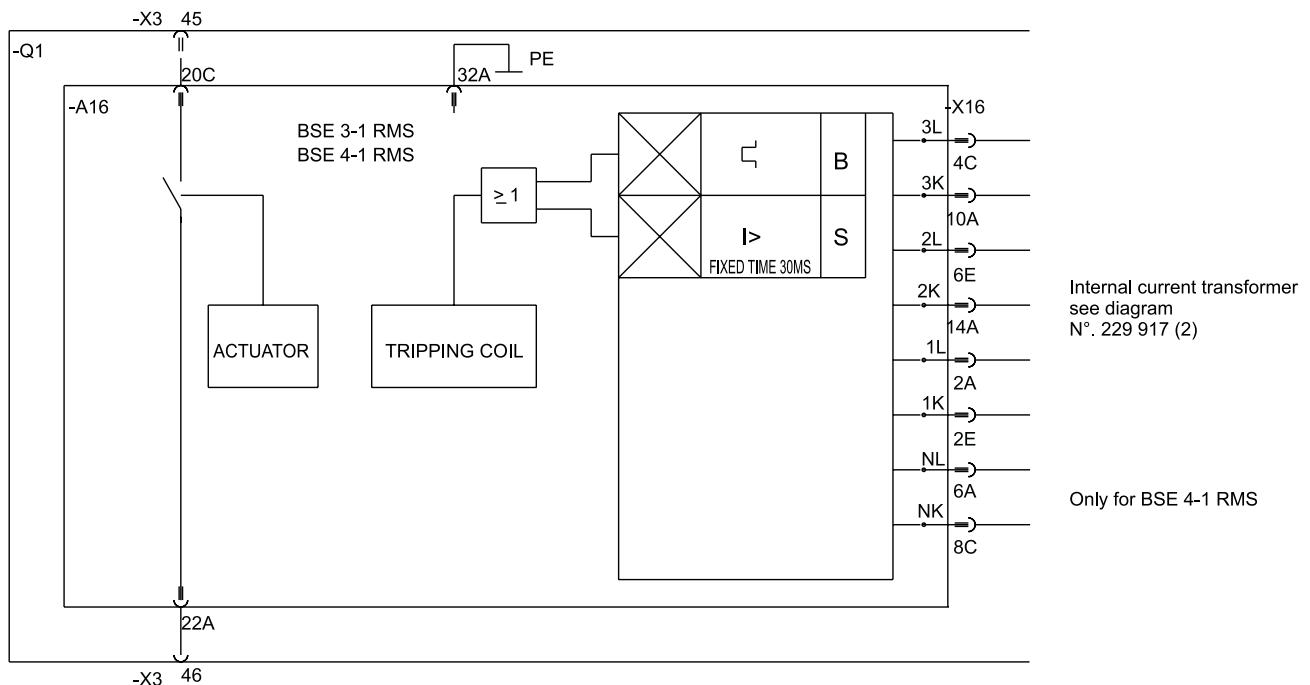
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Key position 4

Electronic trip unit type bse 3-1 rms / bse 4-1 rms

V



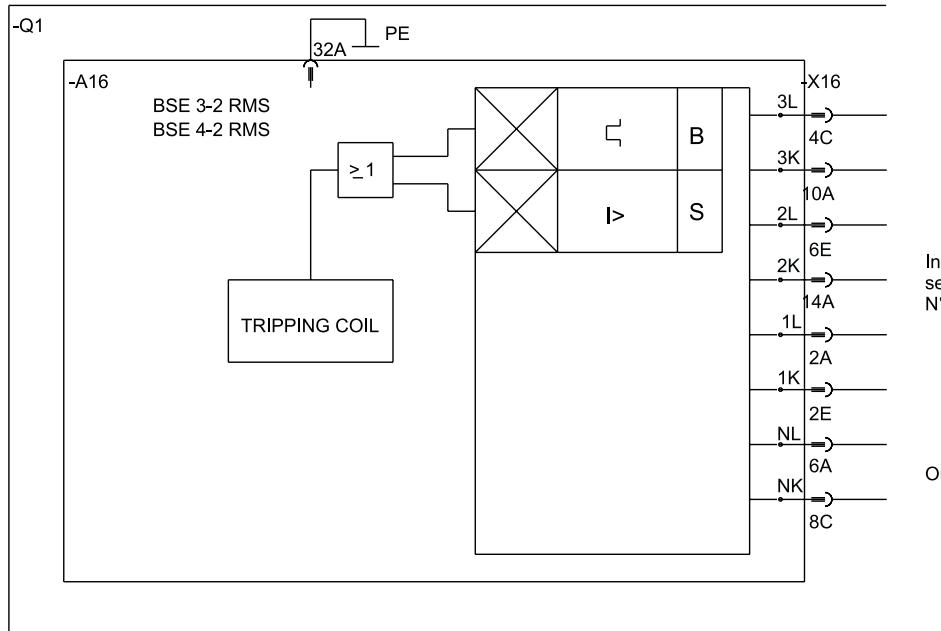
ME07 - Wiring diagrams

ME 637...3207, ME 4007...ME 6307

Key position 4

Electronic trip unit type bse 3-2 rms / bse 4-2 rms

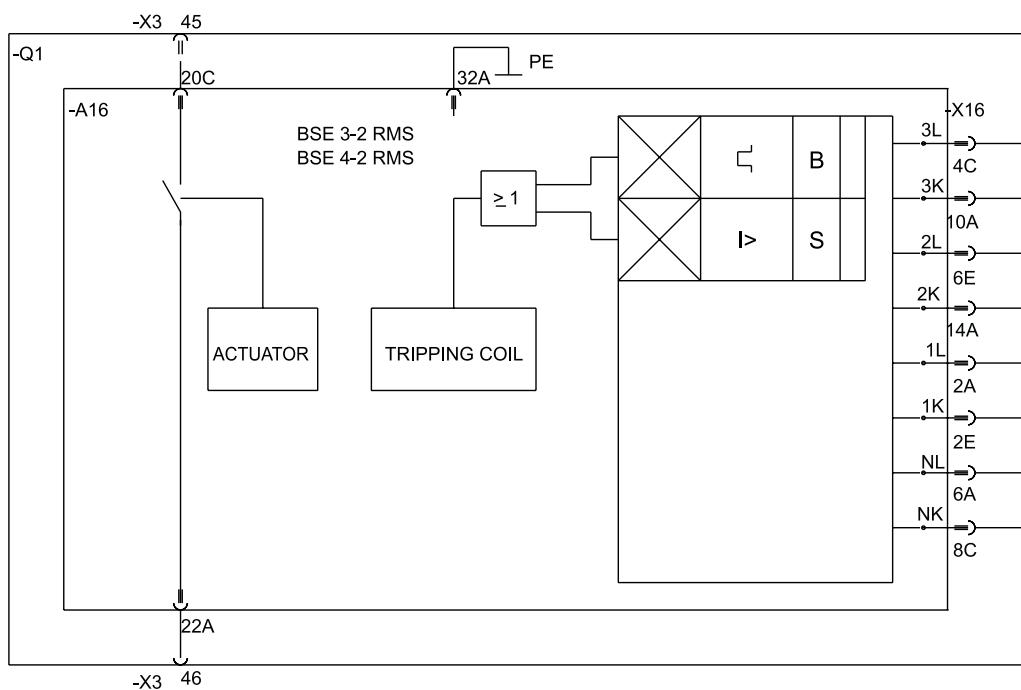
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Key position 4

Electronic trip unit type bse 3-2 rms / bse 4-2 rms

X



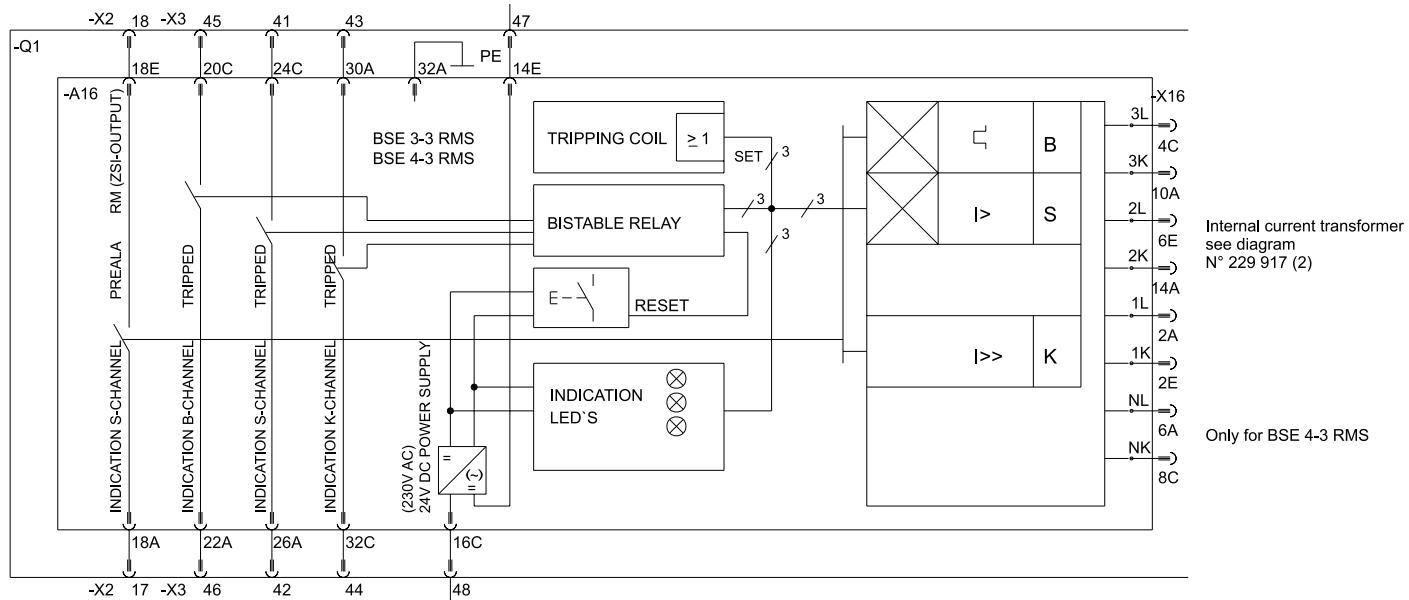
ME07 - Wiring diagrams

ME 637...3207, ME 4007...ME 6307

Key position 4

Electronic trip unit type bse 3-3 rms / bse 4-3 rms

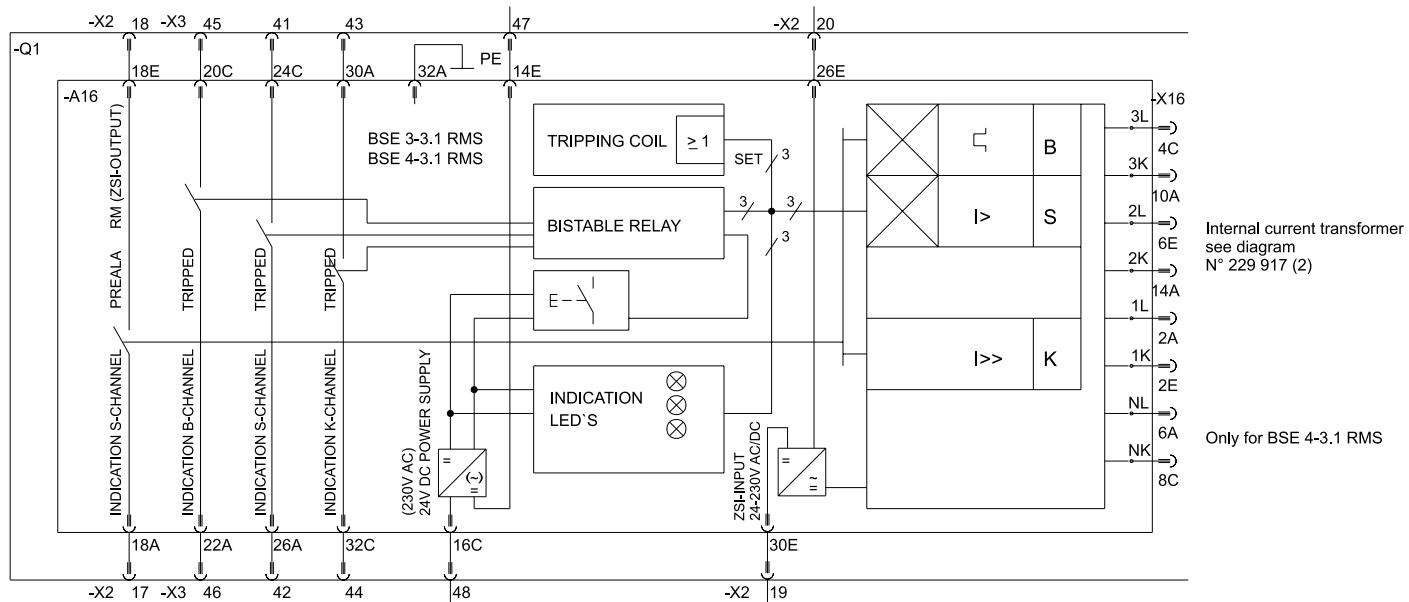
S



Key position 4

Electronic trip unit type bse 3-3.1 rms / bse 4-3.1 rms

T



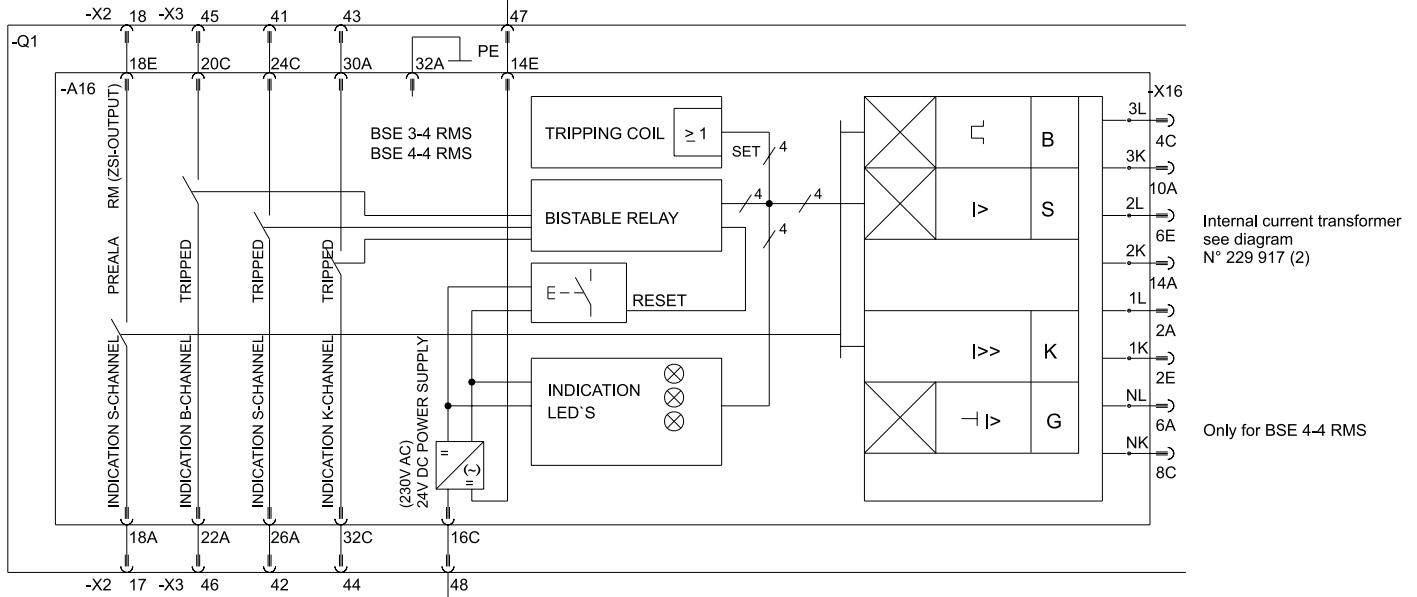
ME07 - Wiring diagrams

ME 637...3207, ME4007...ME6307

Key position 4

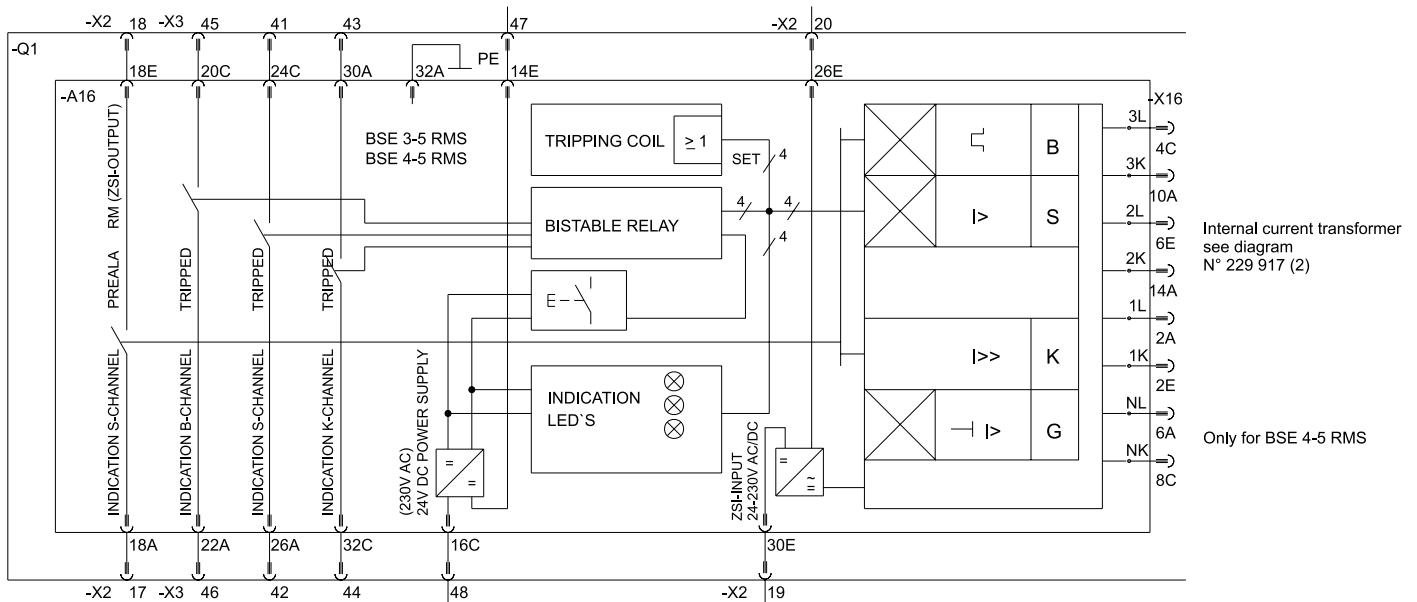
Electronic trip unit type bse 3-4 rms / bse 4-4 rms

L



Key position 4
Electronic trip unit type bse 3-5 rms / bse 4-5 rms

N



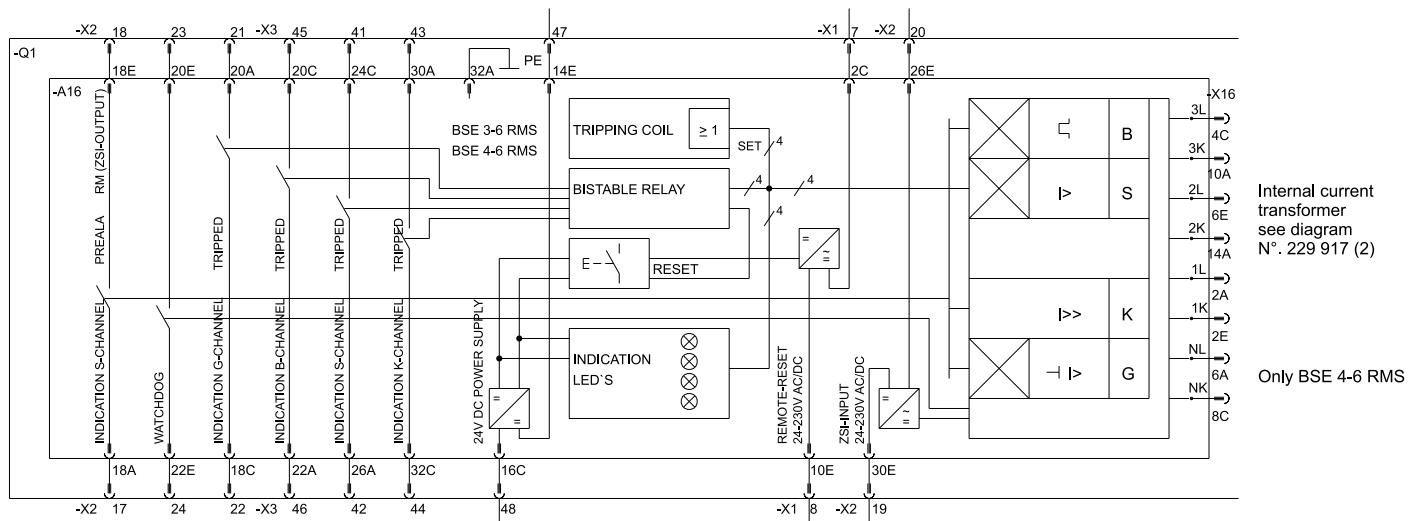
ME07 - Wiring diagrams

ME 637...3207, ME 4007...ME 6307

Key position 4

Key position 4
Electronic trip unit type bse 3-6 rms / bse 4-6 rms

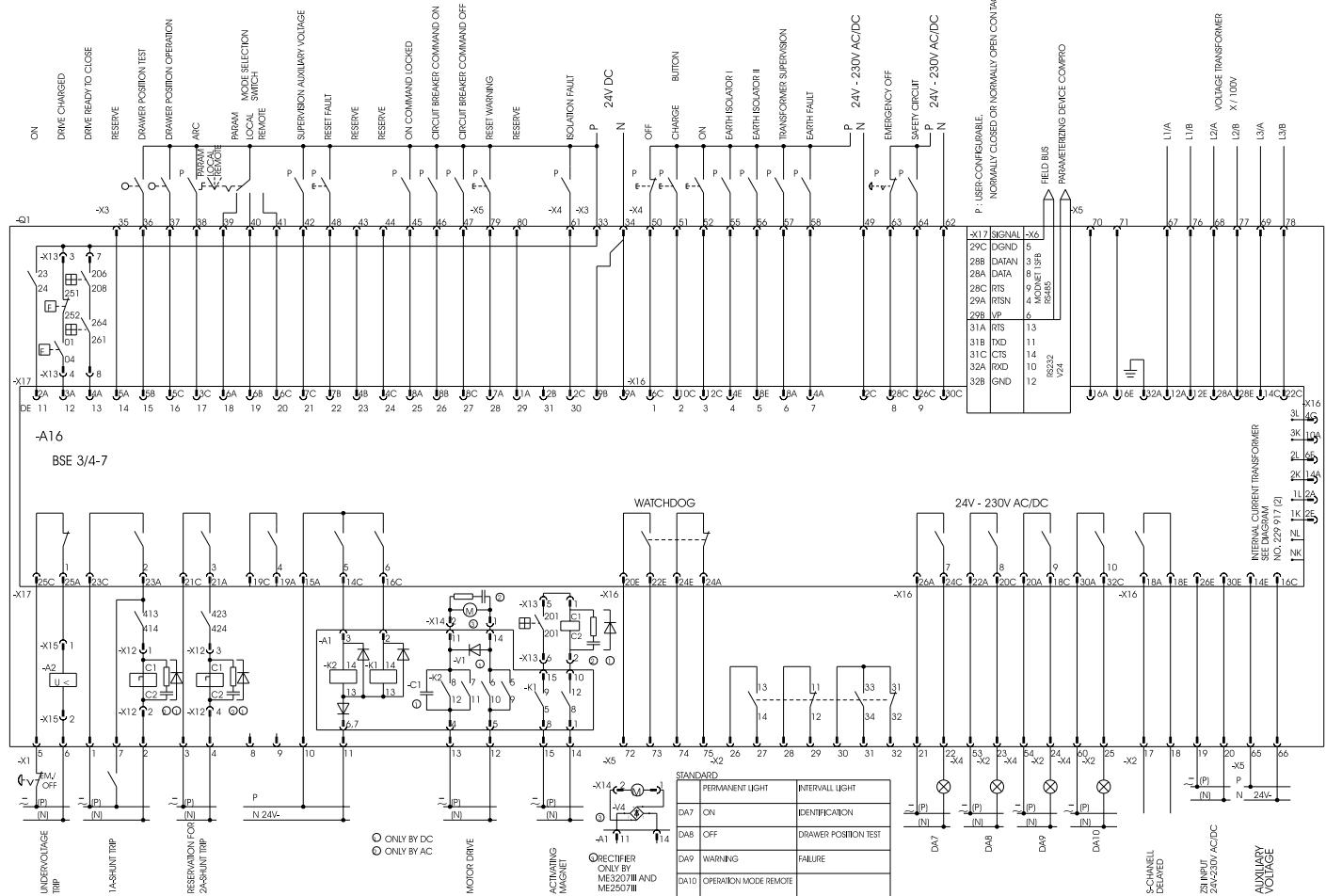
P



Key position 4

Electronic trip unit type bse 3-7 rms / bse 4-7 rms

R



ME07 - Wiring diagrams

ME 637...3207

Key positions 5 and 6
Operating mechanism

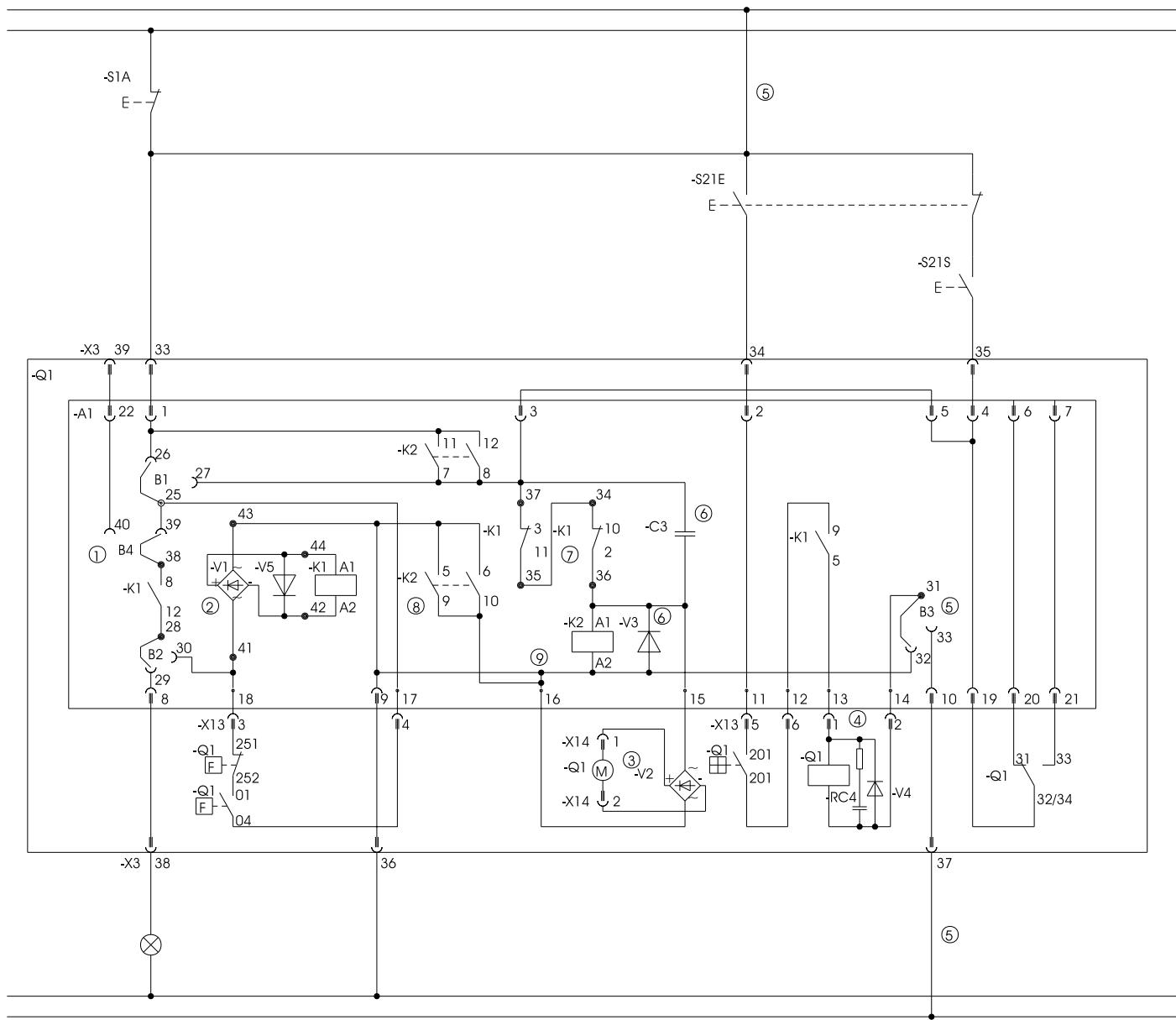


Fig. A/FV1

Fig. A ... E

Motor operated stored energy operating mechanism

1. Bridge B2 - untied potential contact make connection from terminal 38 to 40
2. Rectifier omitted at DC ??? protection circuitry
3. Rectifier for type ME 3207 3-pole and type ME 2507 4-pole, otherwise motor connection directly
4. RC-circuitry at AC, diode at DC
5. Bridge B3 - for separate voltage for activation magnet, make connection terminal 31 and terminal 33 and connect pushbutton S21 to corresponding voltage
6. For DC only
7. For <= DC 60V connect the contacts in parallel i.e. link the terminals 34-37 and 35-36

These items are being considered by the manufacturer on corresponding request.

ME07 - Wiring diagrams

ME 637...3207

**Key positions 5 and 6
Operating mechanism**

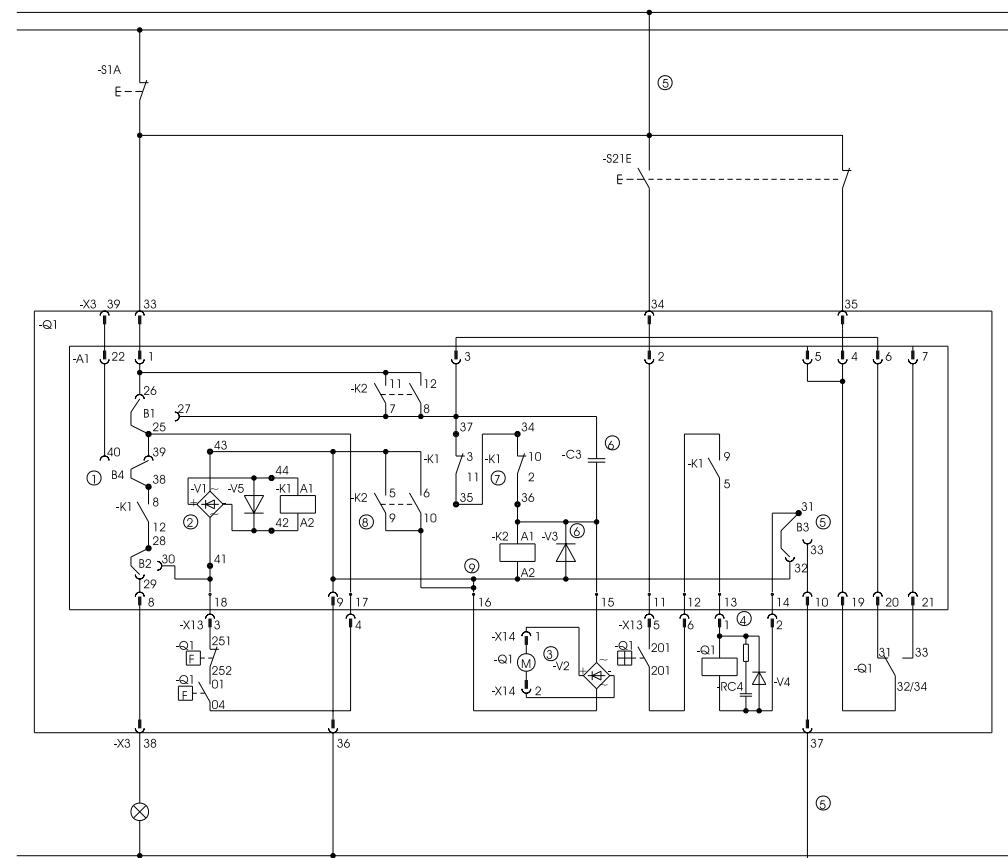


Fig. B / FV2

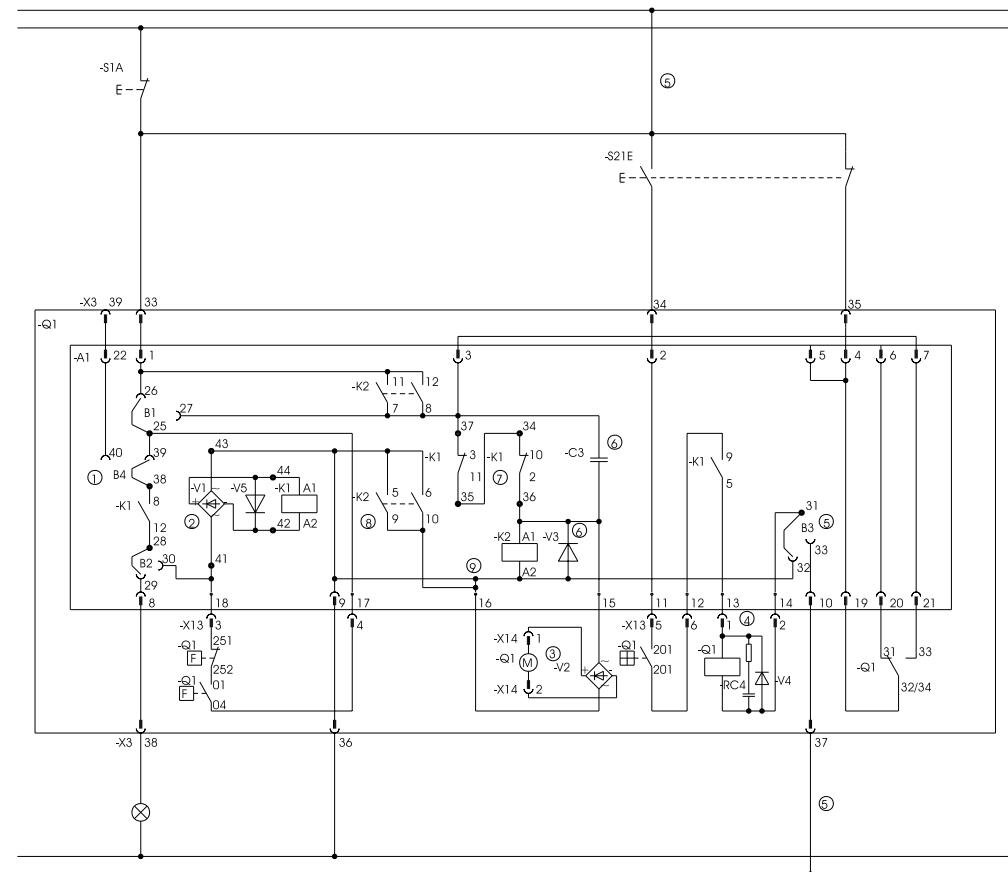
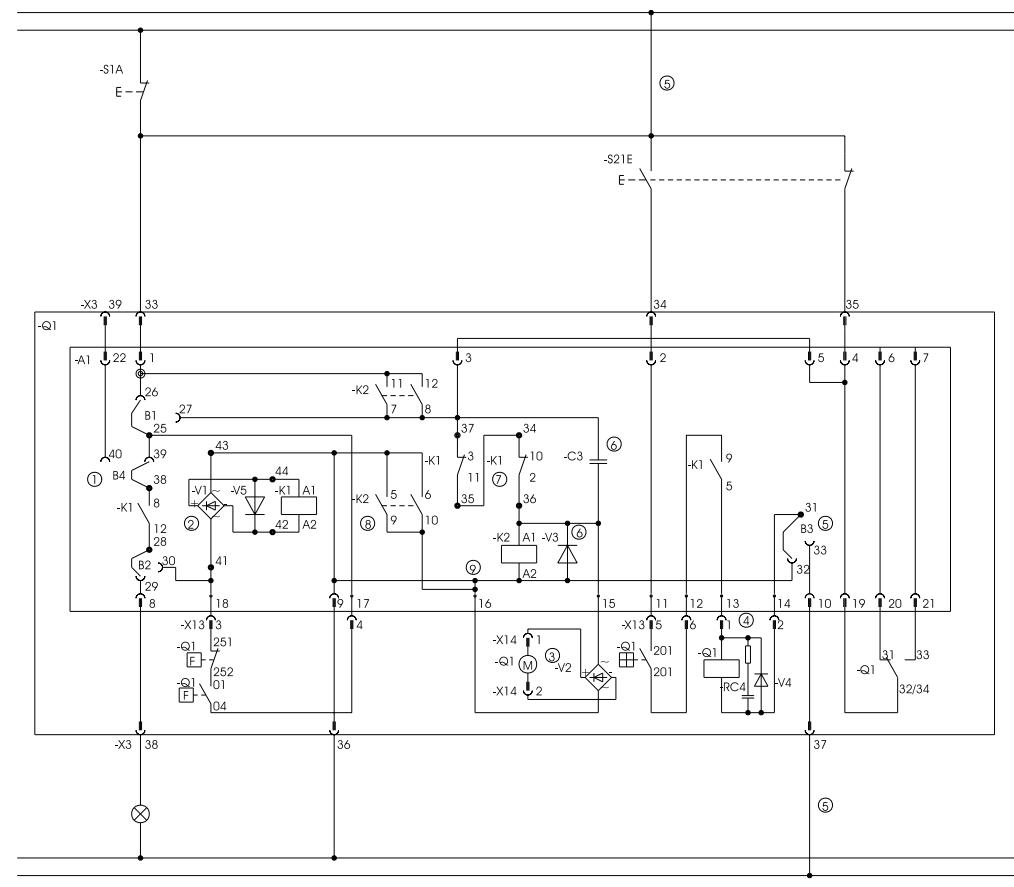


Fig. C / FV3.1

ME07 - Wiring diagrams

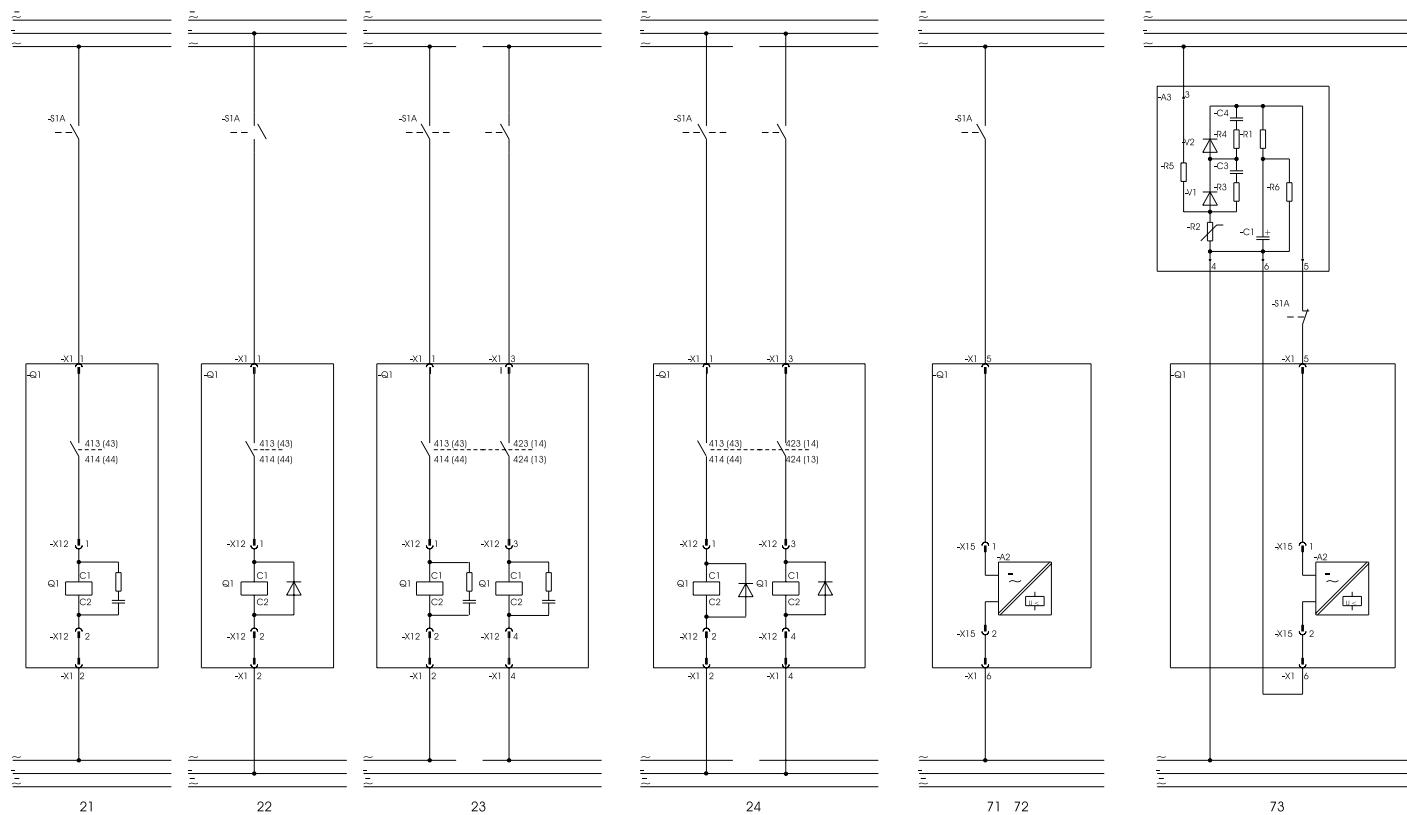
ME 637...3207

**Key positions 5 and 6
Operating mechanism**

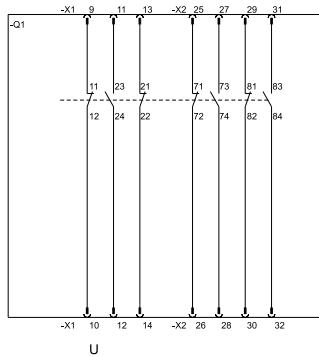
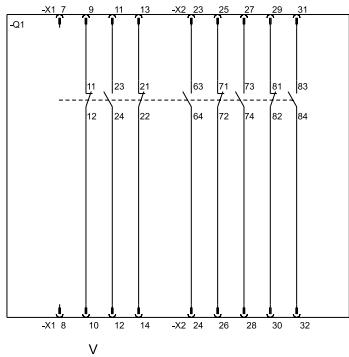
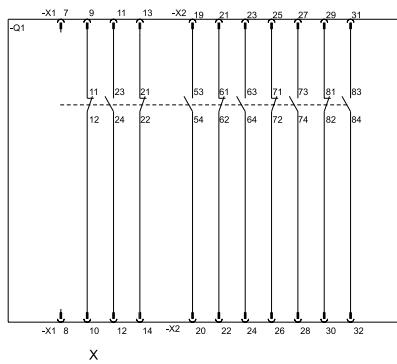
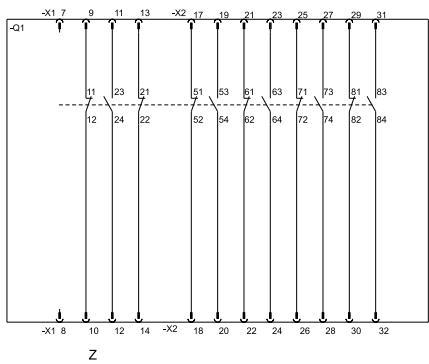


ME07 - Wiring diagrams

ME 637...3207 Key positions 7 and 8 Release



Key position 9 Auxiliary switch

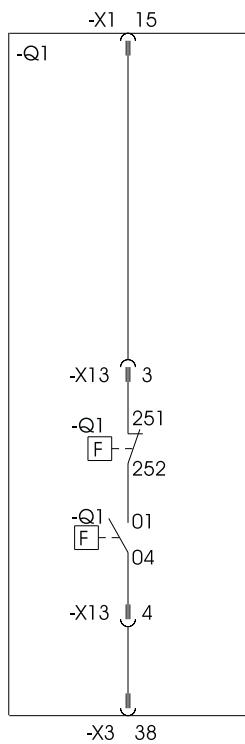


ME07 - Wiring diagrams

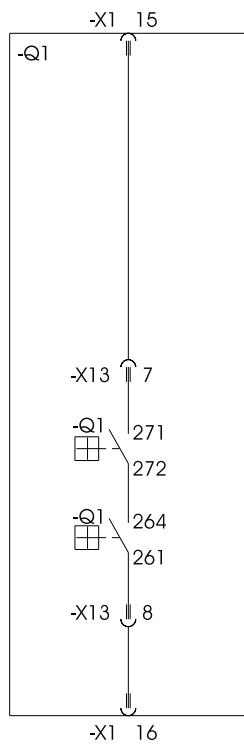
ME 637...3207

Key position 10

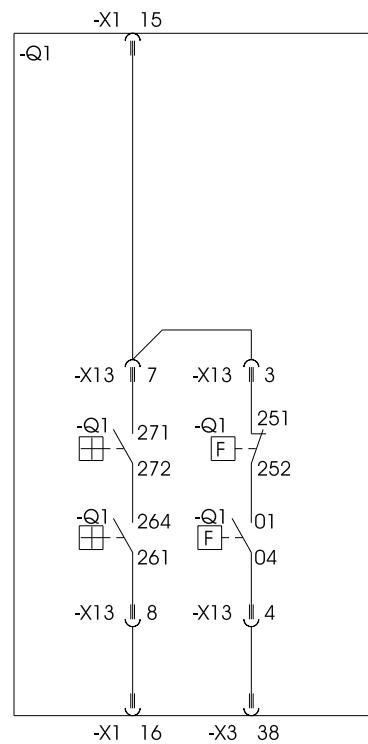
Signal switch at operating mechanism overcurrent release



1



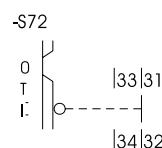
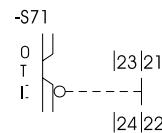
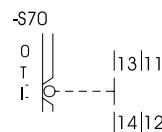
2



3

Key positions 11 and 12

Position indication switch at plug-in unit carrier
(for further key numbers refer to handling instruction 'withdrawable technique')



0 = isolation position
T = test position
[= operation position

ME07 - Wiring diagrams

ME 4007...6207 Key positions 5 and 6 Operating mechanism

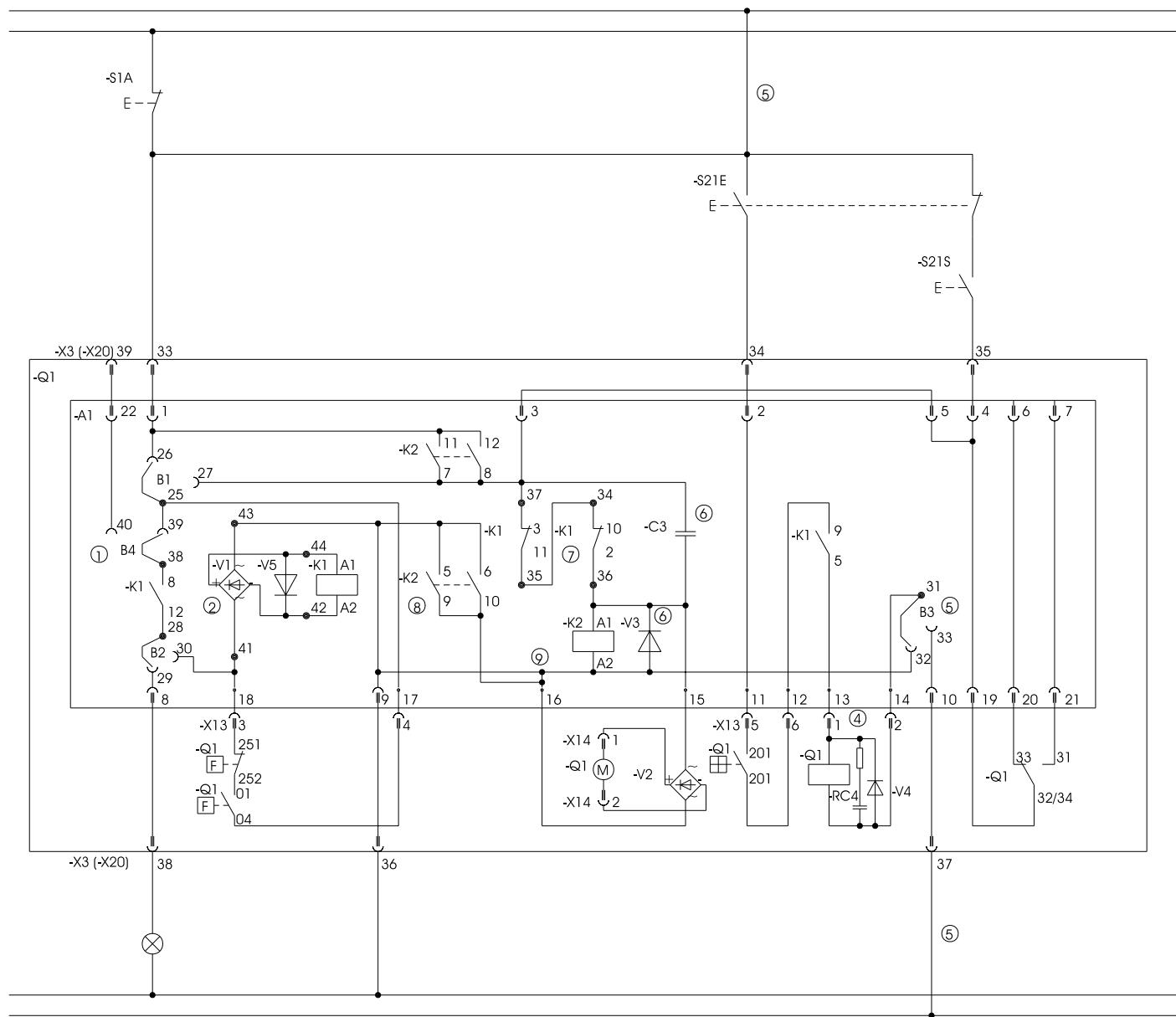


Fig. A/FV1

Fig. A ... E Motor operated stored energy operating mechanism

1. Bridge B4 - untied potential contact make connection from terminal 38 to 40
2. Rectifier omitted at DC ??? protection circuitry
3. Rectifier for type ME 3207 3-pole and type ME 2507 4-pole, otherwise motor connection directly
4. RC-circuitry at AC, diode at DC
5. Bridge B3 - for separate voltage for activation magnet, make connection terminal 31 and terminal 33 and connect pushbutton S21 to corresponding voltage
6. For DC only
7. For <= DC 60V connect the contacts in parallel i.e. link the terminals 34-37 and 35-36
8. K2 contact 5-9 / 6-10 between Motor and N/PE at <= 48V
9. Cancelled at <= 48V

These items are being considered by the manufacturer on corresponding request.
At withdrawable technique X20=X1=X2=X3

ME07 - Wiring diagrams

ME 4007...6207

**Key positions 5 and 6
Operating mechanism**

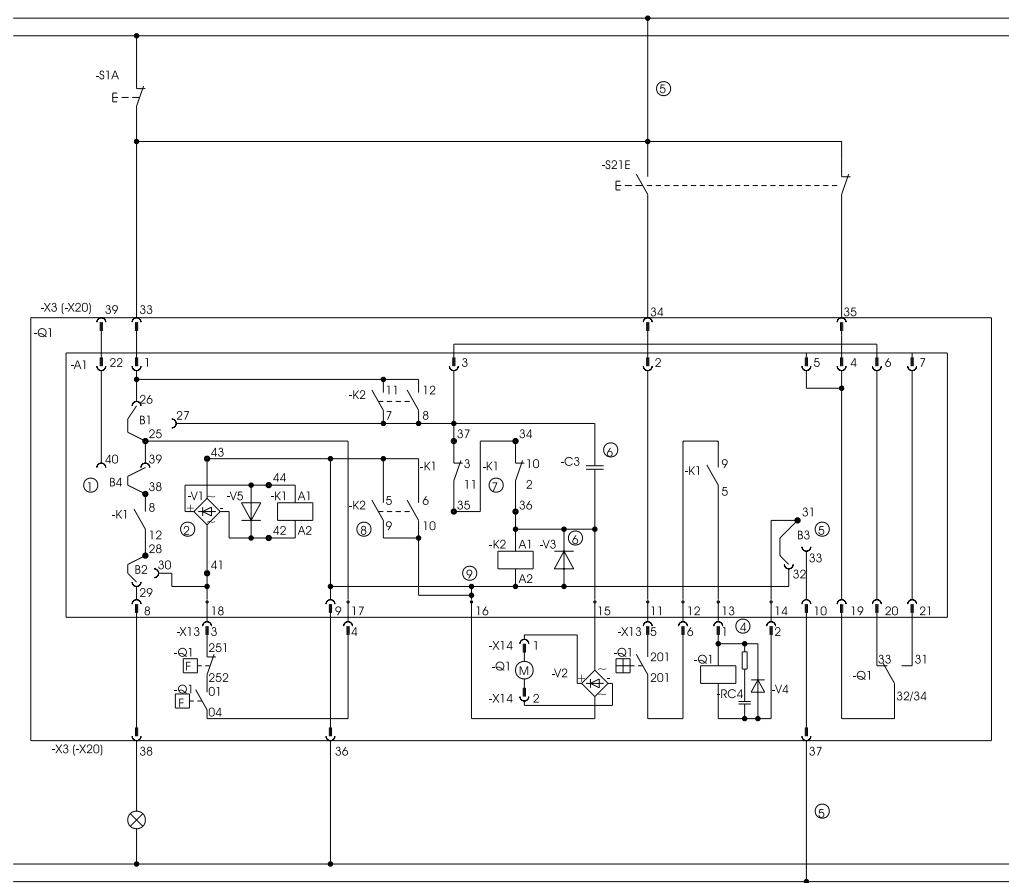


Fig. B / FV2

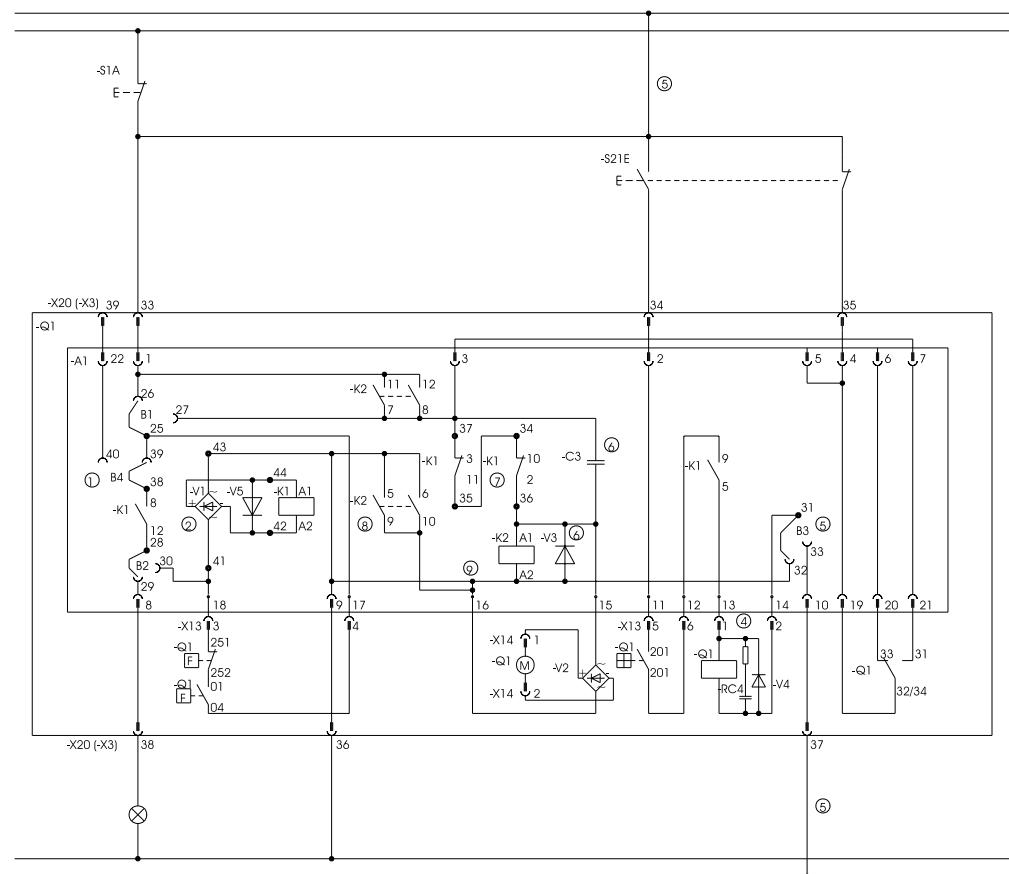


Fig. C / FV3.1

ME07 - Wiring diagrams

ME 4007...6307

**Key positions 5 and 6
Operating mechanism**

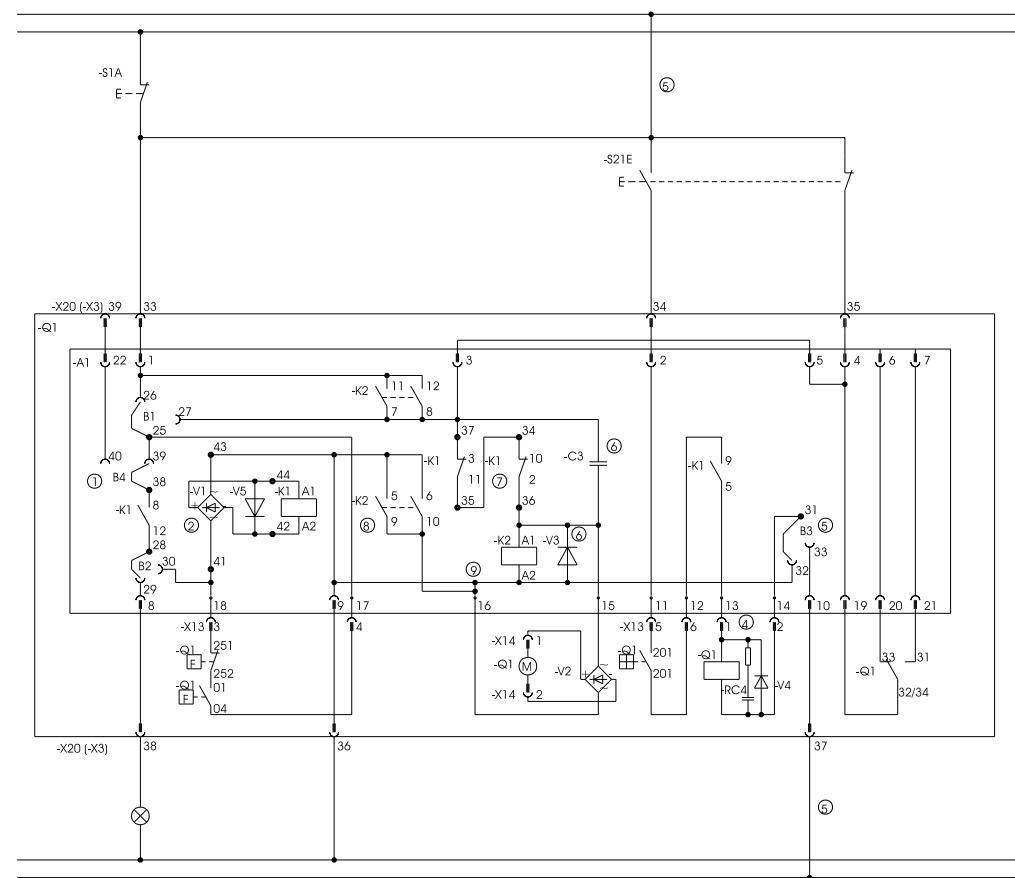


Fig. D / FV3.2

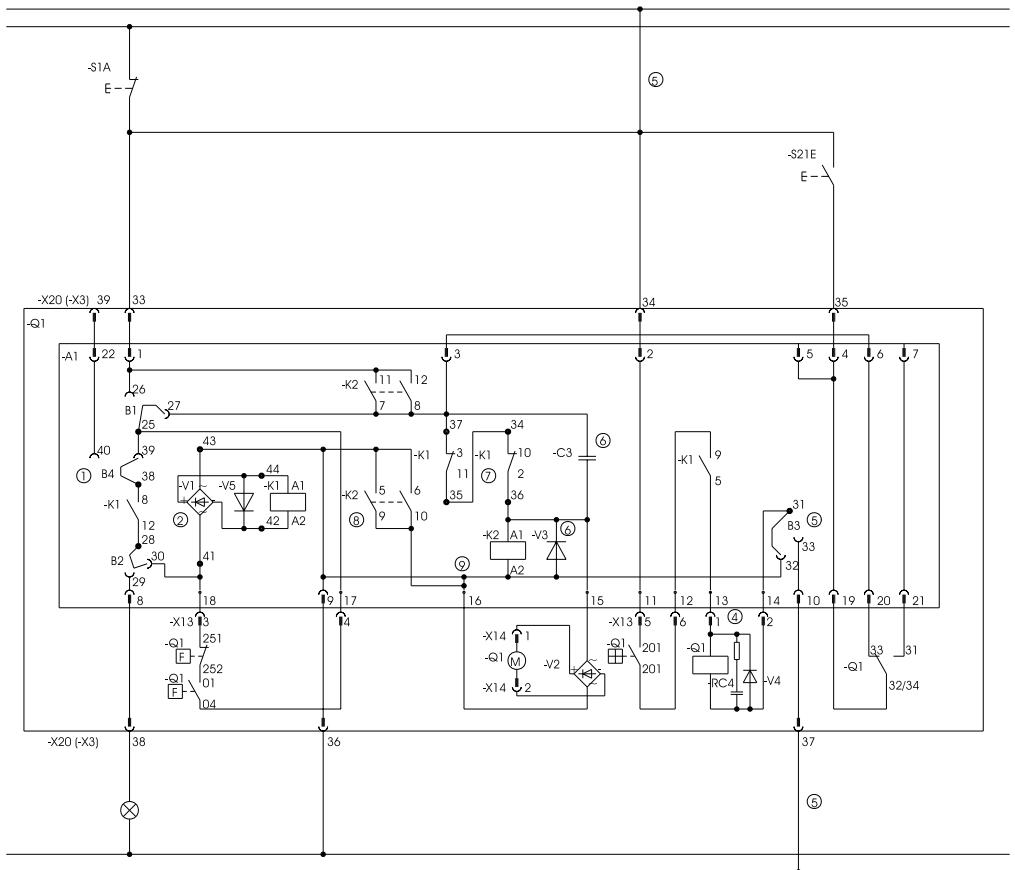
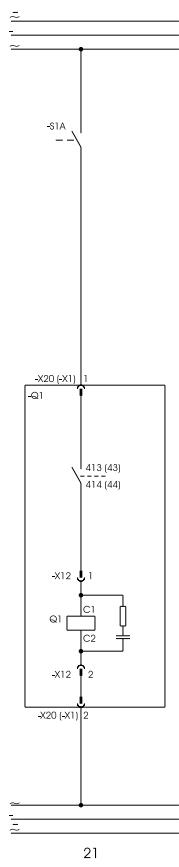


Fig. E / FV4

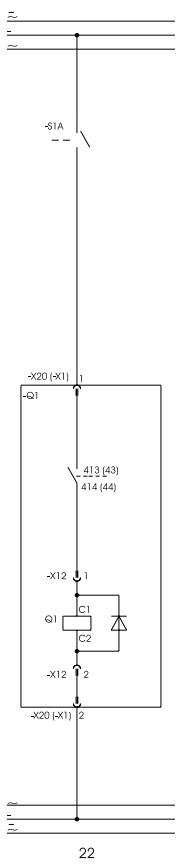
ME07 - Wiring diagrams

ME 4007...6307

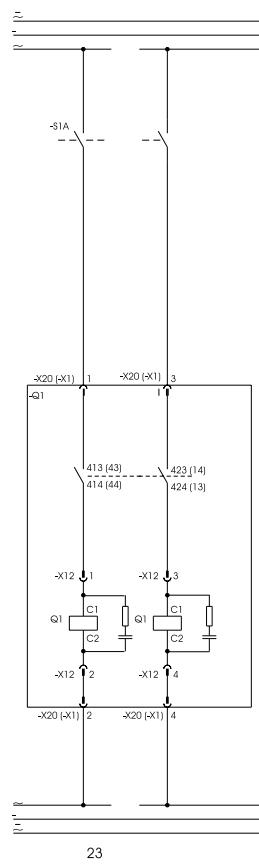
**Key positions 7 and 8
Release**



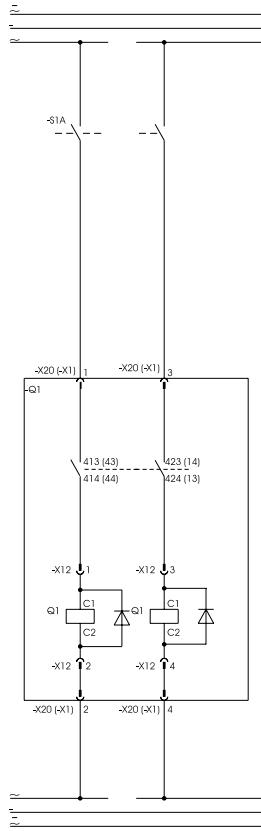
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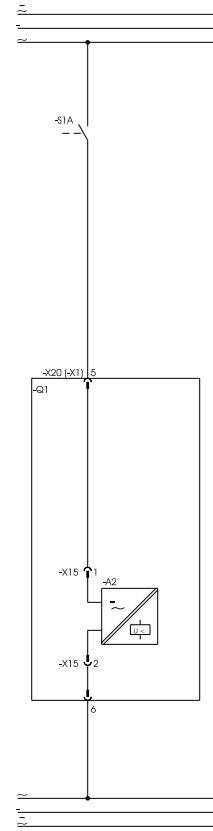
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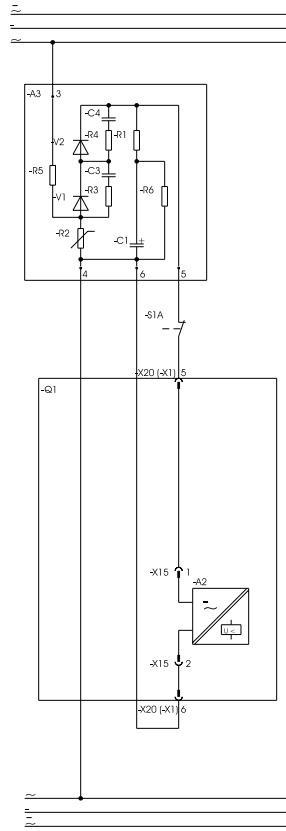
23



24



71 72

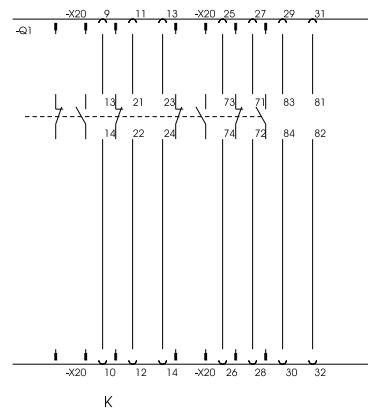
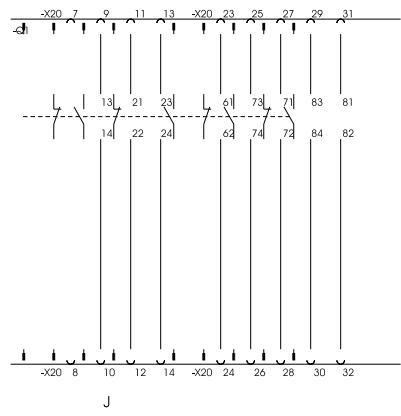
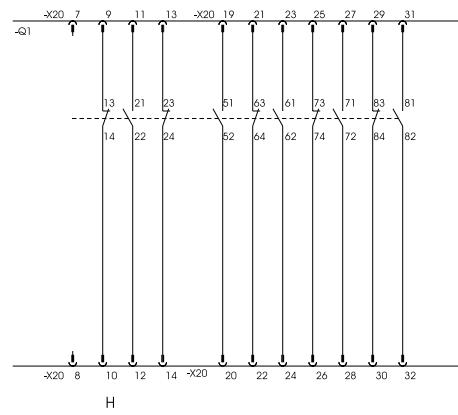
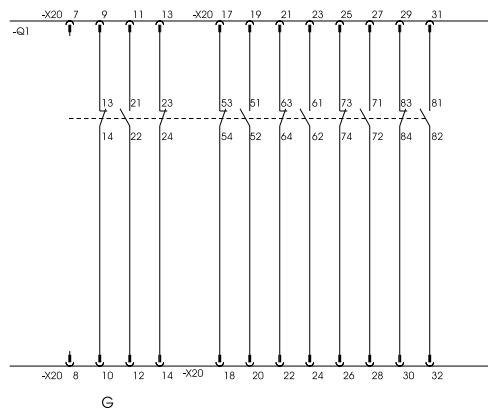
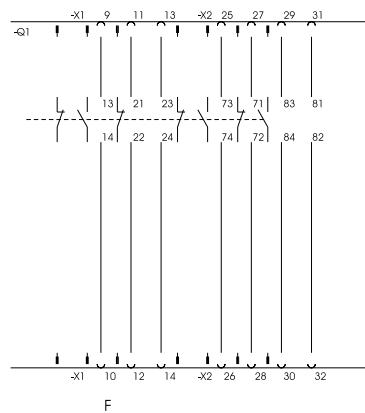
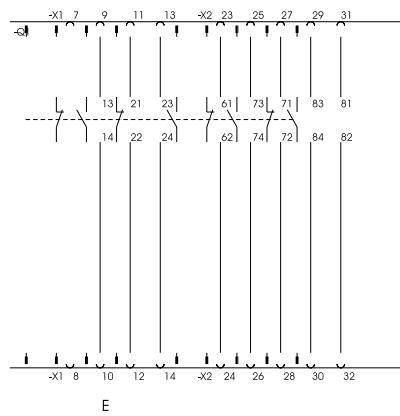
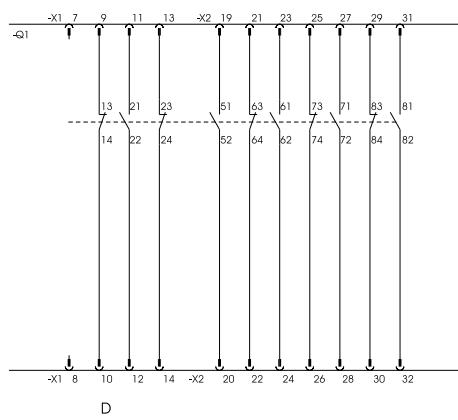
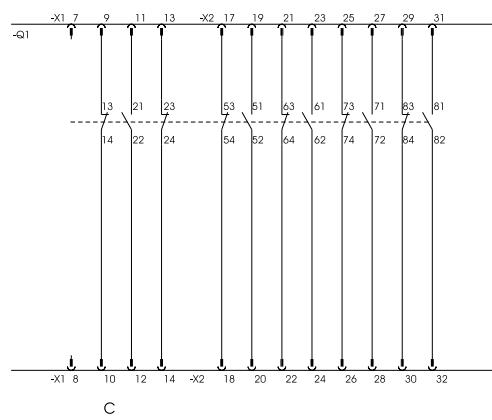


73

ME07 - Wiring diagrams

ME 4007...6307

Key position 9
Auxiliary switch

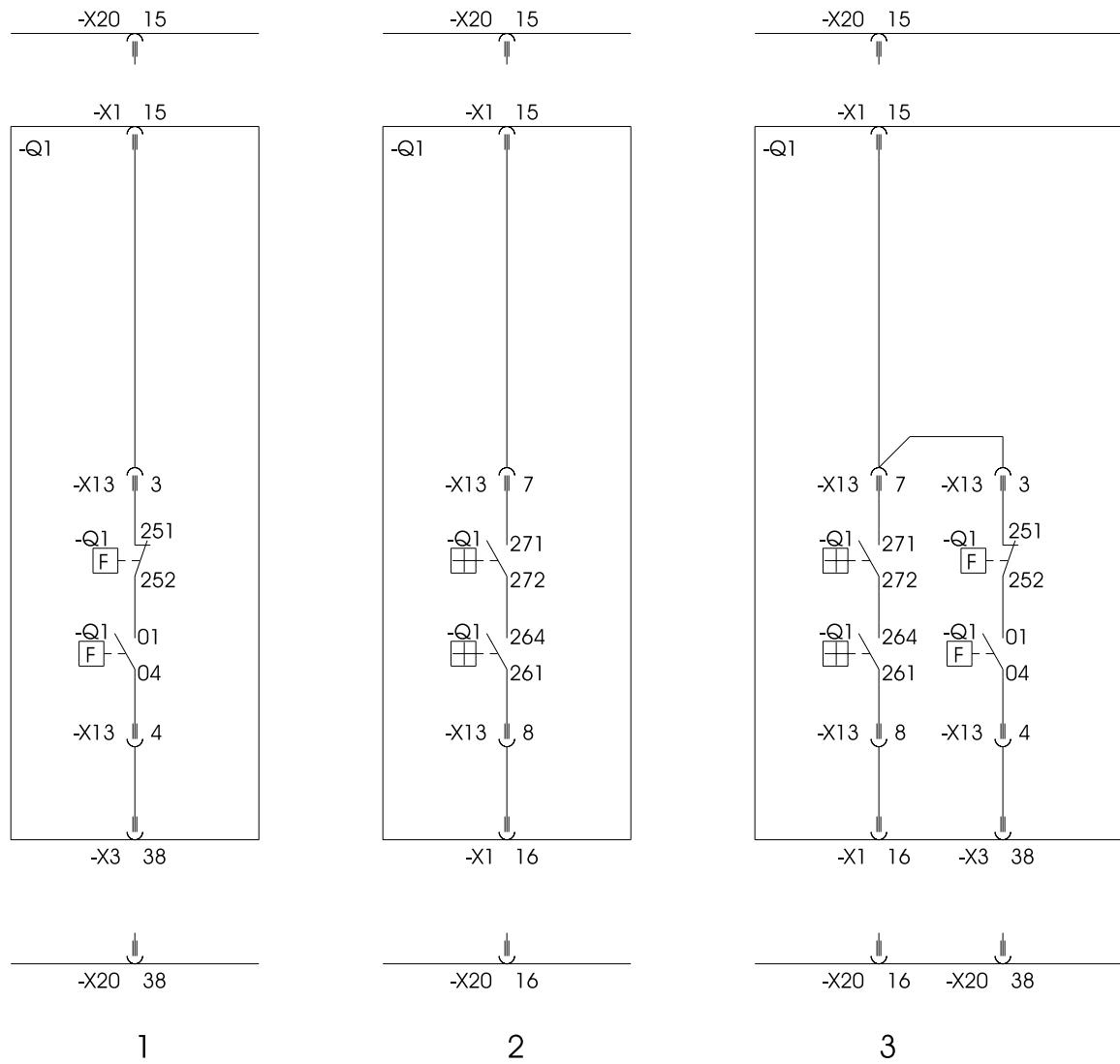


ME07 - Wiring diagrams

ME 4007...6307

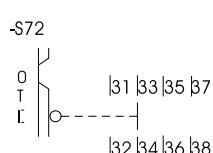
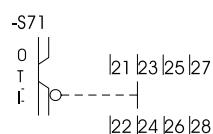
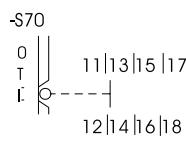
Key position 10

Signal switch at operating mechanism
overcurrent release



Key positions 11 and 12

Position indication switch at plug-in unit carrier (for further key number refer to handling instruction 'Withdrawable technique')



Charged signal for motor-type stored energy operating mechanism with SU key positions 5 and 6 included.

0 = isolation position

T = test position

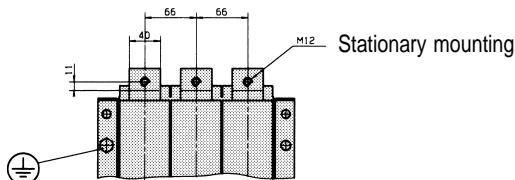
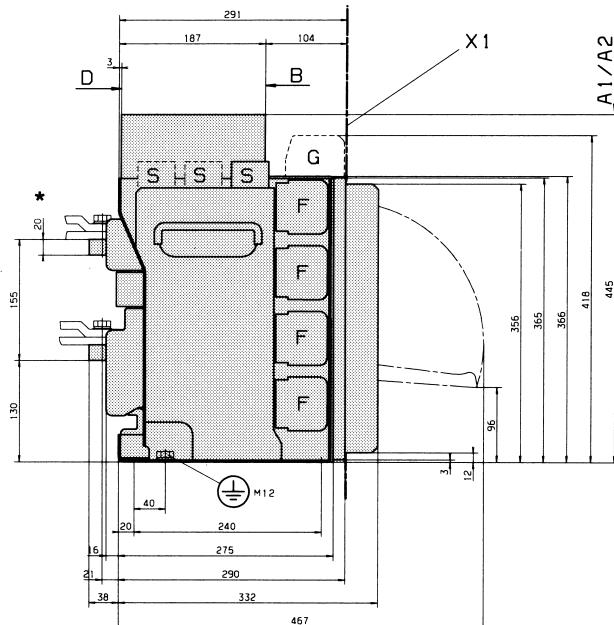
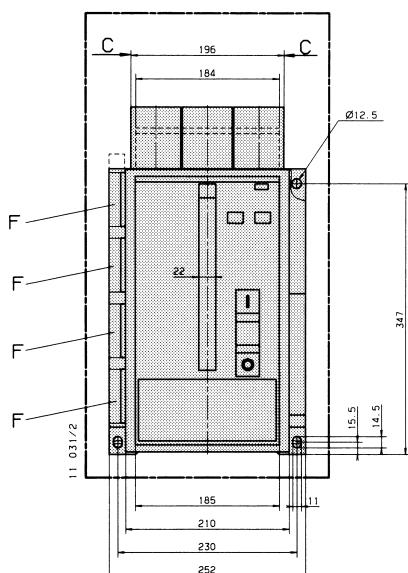
[= operation position

ME07 - Overall dimensions

Types ME637 to ME1257 - Ranges N, S1, H

Horizontal connections

3-pole, frame size 10 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

* = Switch for plug-in-unit type 15 mm

X2 = When punching the connecting rails, the distance from hole to beginning of the rail should amount to max. 11 mm

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range	Horizontal connections										
		Insulated parts					Grounded parts					
		A1	A2	B	C	D	A1	A2	B	C	D	
AC3 ~ 415V	N	Icn ≤ 30 kA	75	—	50	50	50	100	—	100	75	100
	H, S1	Icn ≤ 50 kA	150	150	50	50	50	150	150	100	75	100
	H	Icn ≤ 80 kA	150	150	50	50	50	200	150	100	100	100
	H	Icn ≤ 100 kA	250	250	100	75	100	300	250	100	100	100
AC3 ~ 440V	H	Icn ≤ 100 kA	(1)	(1)	(1)	(1)	(1)	300	(1)	100	100	100
AC3 ~ 500V	H, S1	Icn ≤ 50 kA	250	200	100	75	75	250	200	100	100	100
	H	Icn ≤ 70 kA	300	250	100	75	75	300	250	100	100	100
AC3 ~ 690V	H, S1	Icn ≤ 50 kA	—	200	100	75	75	—	250	100	100	100
DC 220V	H	Icn ≤ 50 kA	—	(1)	(1)	(1)	(1)	—	150	100	100	100
DC 440V	H	Icn ≤ 40 kA	—	(1)	(1)	(1)	(1)	—	150	100	100	100
DC 750V	H	Icn ≤ 20 kA	—	(1)	(1)	(1)	(1)	—	150	100	100	100

A1 = Arc chute without insert, standard version.

A2 = Arc chute with insert, special version for rated voltage up to 500V

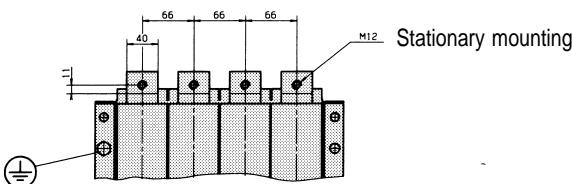
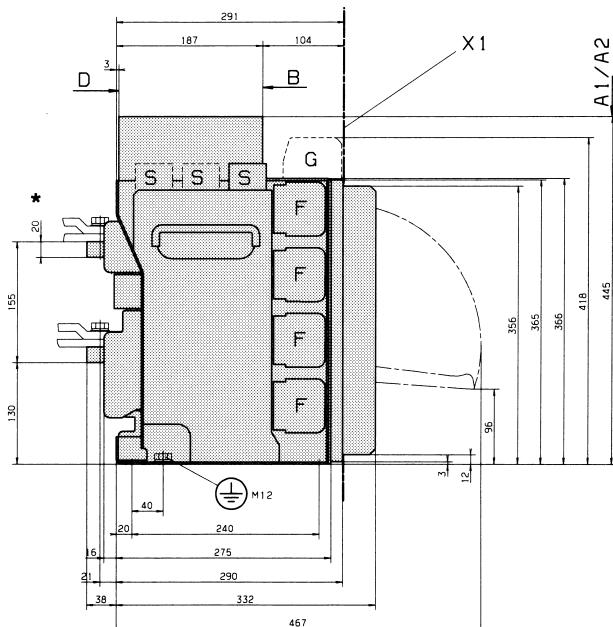
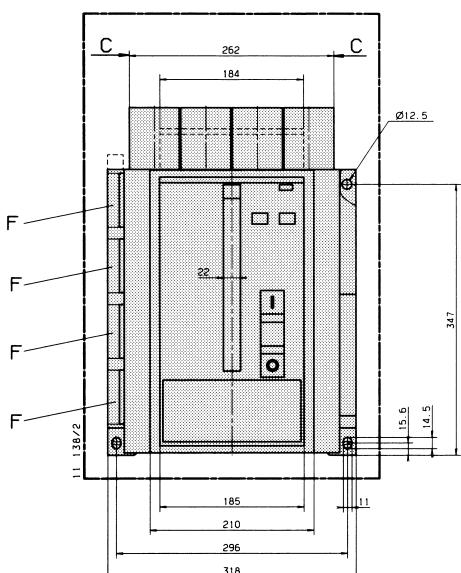
(1) On request.

ME07 - Overall dimensions

Types ME637 to ME1257 - Ranges N, S1, H

Horizontal connections

4-pole, frame size 10 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails, the distance from hole to beginning of the rail should amount to max. 11 mm

* = Switch for plug-in-unit type 15 mm

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range	Horizontal connections										
		Insulated parts					Grounded parts					
		A1	A2	B	C	D	A1	A2	B	C	D	
AC3 ~ 415V	N	Icn ≤ 30 kA	75	—	50	50	50	100	—	100	75	100
	H, S1	Icn ≤ 50 kA	150	150	50	50	50	150	150	100	75	100
	H	Icn ≤ 80 kA	150	150	50	50	50	200	150	100	100	100
	H	Icn ≤ 100 kA	250	250	100	75	100	300	250	100	100	100
AC3 ~ 500V	H, S1	Icn ≤ 50 kA	250	200	100	75	75	250	200	100	100	100
	H	Icn ≤ 70 kA	300	250	100	75	75	300	250	100	100	100
AC3 ~ 690V	H, S1	Icn ≤ 50 kA	—	200	100	75	75	—	250	100	100	100

A1 = Arc chute without insert, standard version.

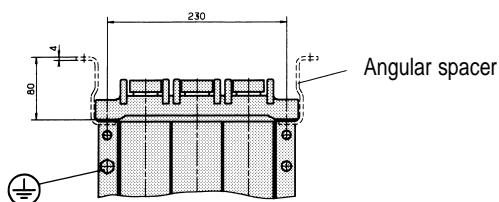
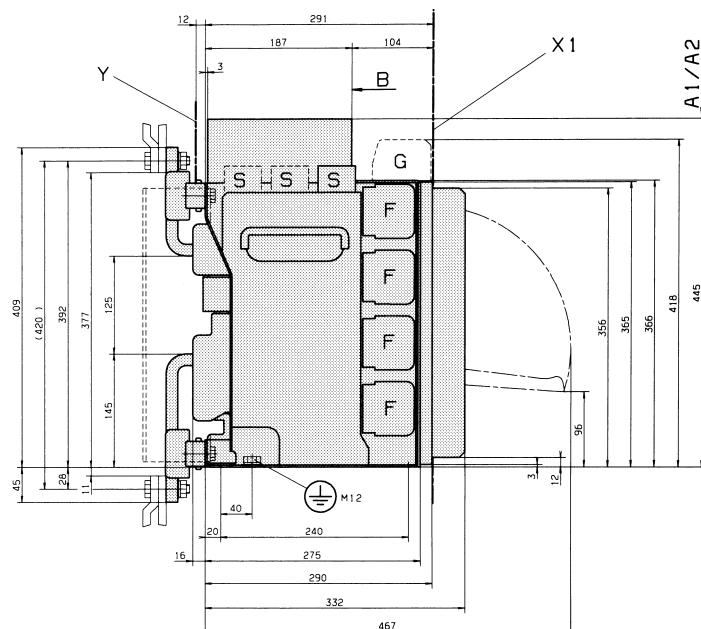
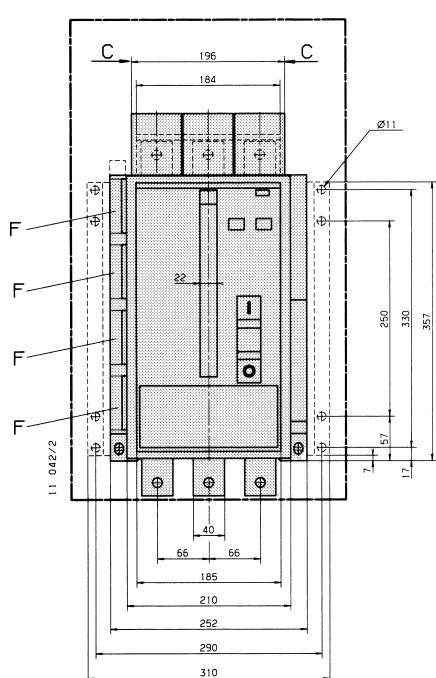
A2 = Arc chute with insert, special version for rated voltage up to 500V

ME07 - Overall dimensions

Types ME637 to ME1257 - Ranges N, S1, H

Vertical connections

3-pole, frame size 10 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails,
the distance from hole to beginning of
the rail should amount to max. 11 mm

Y = Insulating screen for vertical connections
Upper edge according to dimensions A1, A2
(not included in delivery scope),
angular spacer for attachment to vertical
traverses (not included in delivery scope)

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range	Vertical connections								
		Insulated parts				Grounded parts				
		A1	A2	B	C	A1	A2	B	C	
AC3 ~ 415V	N	Icn ≤ 30 kA	100	–	100	50	100	–	100	75
	H, S1	Icn ≤ 50 kA	200	150	100	50	200	200	100	100
	H	Icn ≤ 80 kA	300	150	100	50	300	250	100	100
	H	Icn ≤ 100 kA	300	300	100	100	–	300	100	100
AC3 ~ 500V	H, S1	Icn ≤ 50 kA	300	200	100	75	300	250	100	100
	H	Icn ≤ 70 kA	(1)	300	100	75	(1)	300	100	100
AC3 ~ 690V	H, S1	Icn ≤ 50 kA	–	200	100	75	–	250	100	100

A1 = Arc chute without insert, standard version.

A1 = Arc chute without insert, standard version.
A2 = Arc chute with insert, special version for rated voltage up to 500V

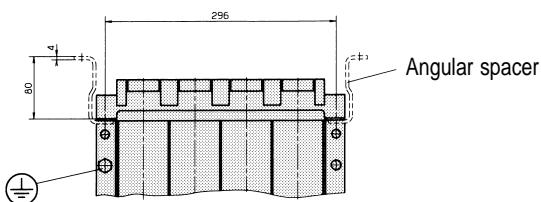
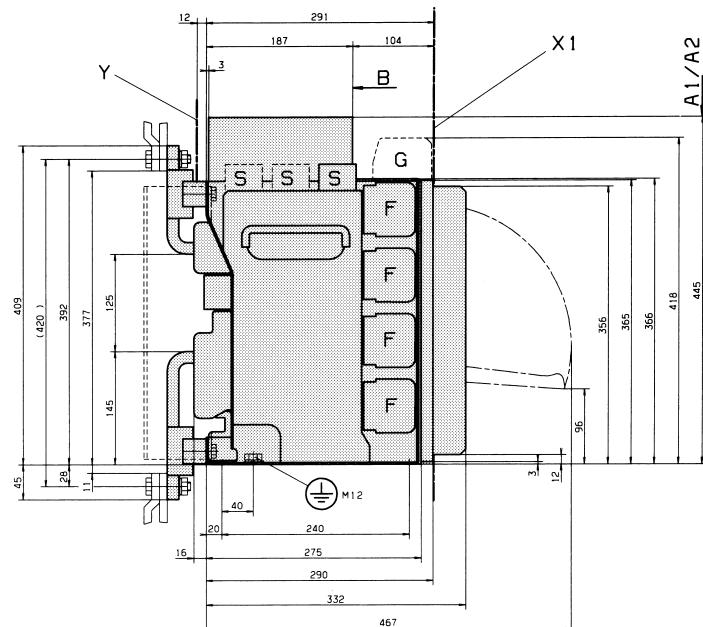
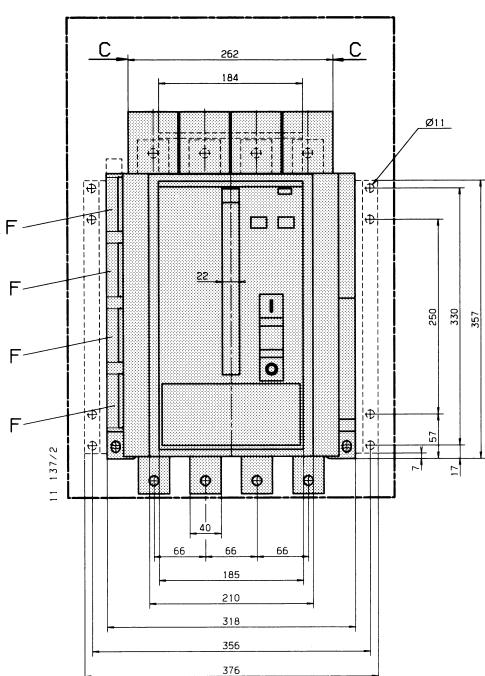
A2 - AIC chute
(1) On request.

ME07 - Overall dimensions

Types ME637 to ME1257 - Ranges N, S1, H

Vertical connections

4-pole, frame size 10 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails,
the distance from hole to beginning of
the rail should amount to max. 11 mm

Y = Insulating screen for vertical connections
Upper edge according to dimensions A1, A2
(not included in delivery scope), angular
spacer for attachment to vertical traverses
(not included in delivery scope)

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range		Vertical connections							
			Insulated parts				Grounded parts			
	A1	A2	B	C	A1	A2	B	C		
AC3 ~ 415V	N	Icn ≤ 30 kA	100	–	100	50	100	–	100	75
	H, S1	Icn ≤ 50 kA	200	150	100	50	200	200	100	100
	H	Icn ≤ 80 kA	300	150	100	50	300	250	100	100
	H	Icn ≤ 100 kA	300	250	100	100	–	300	100	100
AC3 ~ 500V	H, S1	Icn ≤ 50 kA	300	200	100	75	300	250	100	100
	H	Icn ≤ 70 kA	(1)	300	100	75	(1)	300	100	100
AC3 ~ 690V	H, S1	Icn ≤ 50 kA	–	200	100	75	–	250	100	100

A1 = Arc chute without insert, standard version.

A2 = Arc chute with insert, special version for rated voltage up to 500V

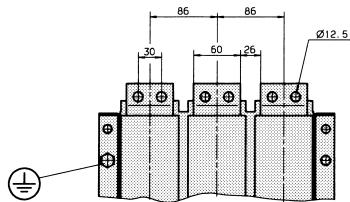
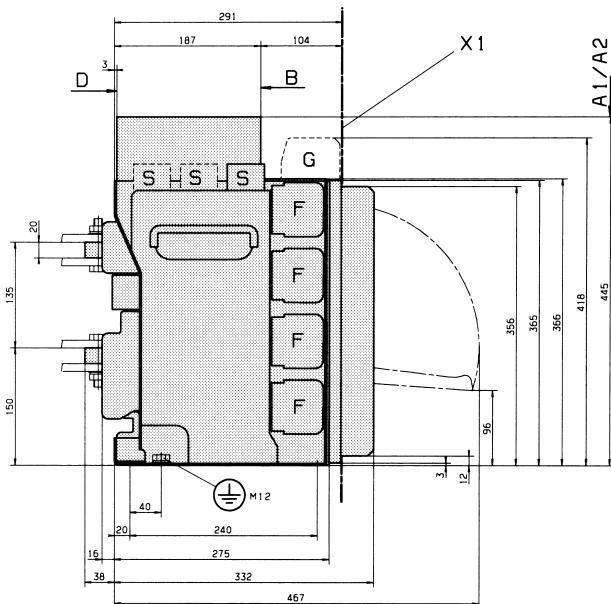
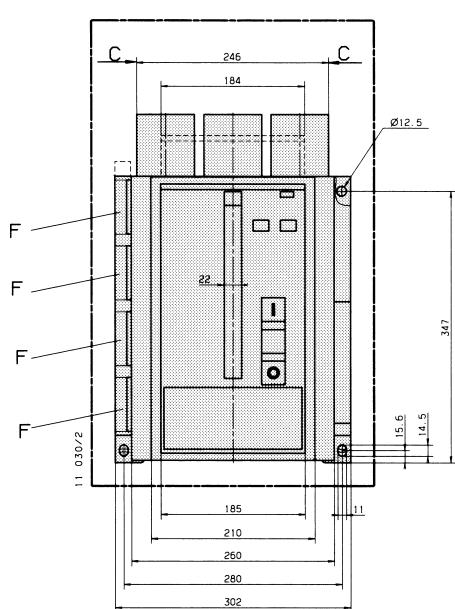
(1) On request.

ME07 - Overall dimensions

Types ME1607 to ME2007 - Ranges N, S1, H

Horizontal connections

3-pole, frame size 20 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails, the distance from hole to beginning of the rail should amount to max. 11 mm

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range	Horizontal connections										
		Insulated parts					Grounded parts					
		A1	A2	B	C	D	A1	A2	B	C	D	
AC3 ~ 415V	N	Icn ≤ 35 kA	75	—	50	50	50	100	—	100	75	100
	H, S1	Icn ≤ 55 kA	200	150	50	50	50	200	150	100	75	100
	H	Icn ≤ 80 kA	200	150	50	50	50	250	150	100	100	100
	H	Icn ≤ 100 kA	250	200	50	50	50	300	200	100	100	100
AC3 ~ 440V	H	Icn ≤ 100 kA	(1)	(1)	(1)	(1)	(1)	(1)	250	100	100	100
AC3 ~ 500V	H, S1	Icn ≤ 55 kA	200	150	100	75	75	200	150	100	100	100
	H	Icn ≤ 70 kA	250	150	100	75	75	250	150	100	100	100
	H	Icn ≤ 80 kA	300	250	100	75	75	300	250	100	100	100
AC3 ~ 690V	H, S1	Icn ≤ 55 kA	—	200	100	75	75	—	200	100	100	100
DC 220V	H	Icn ≤ 60 kA	—	(1)	(1)	(1)	(1)	—	150	100	100	100
DC 440V	H	Icn ≤ 45 kA	—	(1)	(1)	(1)	(1)	—	150	100	100	100
DC 750V	H	Icn ≤ 20 kA	—	(1)	(1)	(1)	(1)	—	150	100	100	100

A1 = Arc chute without insert, standard version.

A2 = Arc chute with insert, special version for rated voltage up to 500V

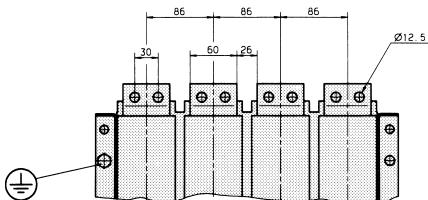
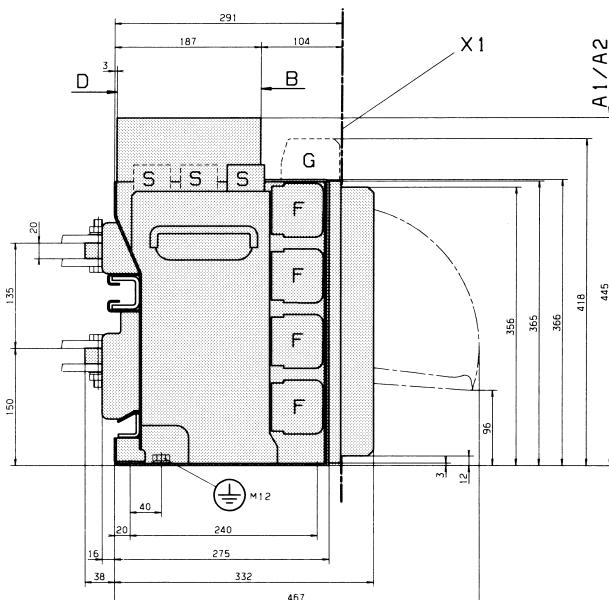
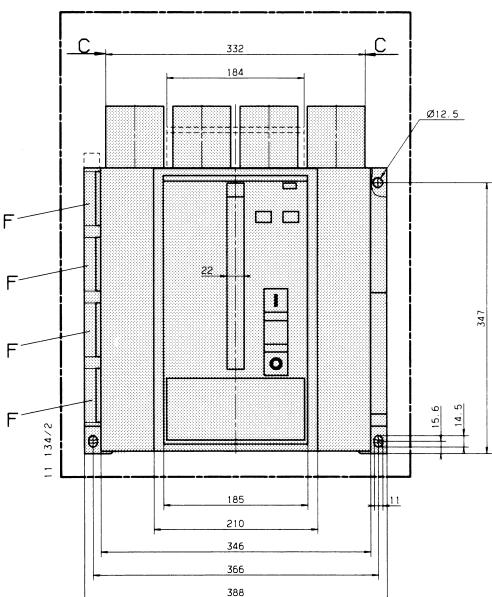
(1) On request.

ME07 - Overall dimensions

Types ME1607 to ME2007 - Ranges N, S1, H

Horizontal connections

4-pole, frame size 20 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails, the distance from hole to beginning of the rail should amount to max. 11 mm

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range	Horizontal connections										
		Insulated parts					Grounded parts					
		A1	A2	B	C	D	A1	A2	B	C	D	
AC3 ~ 415V	N	Icn ≤ 35 kA	75	—	50	50	50	100	—	100	75	100
	H, S1	Icn ≤ 55 kA	200	150	50	50	50	200	150	100	75	100
	H	Icn ≤ 80 kA	200	150	50	50	50	250	150	100	100	100
	H	Icn ≤ 100 kA	250	200	50	50	50	300	200	100	100	100
AC3 ~ 500V	H, S1	Icn ≤ 55 kA	200	150	100	75	75	200	150	100	100	100
	H	Icn ≤ 70 kA	250	150	100	75	75	250	150	100	100	100
	H	Icn ≤ 80 kA	300	250	100	75	75	300	250	100	100	100
AC3 ~ 690V	H, S1	Icn ≤ 55 kA	—	200	100	75	75	—	200	100	100	100

A1 = Arc chute without insert, standard version.

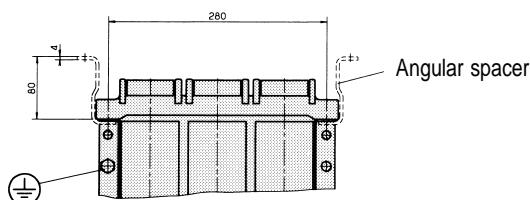
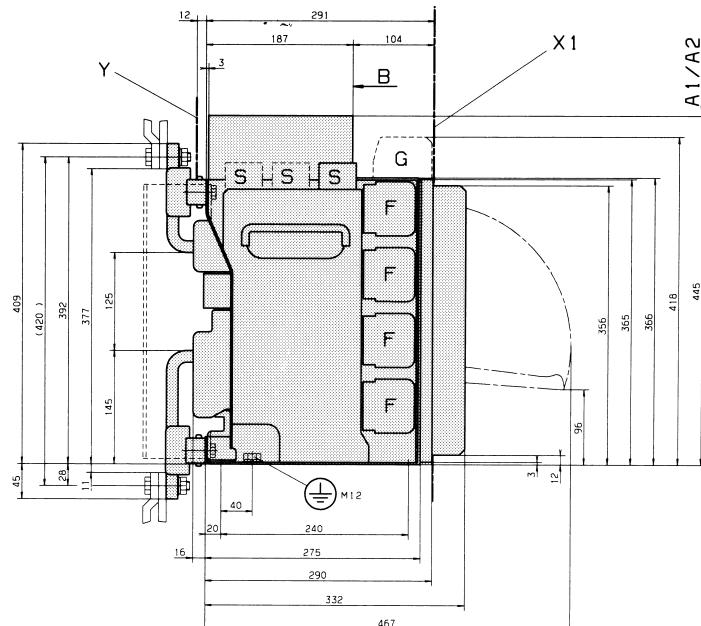
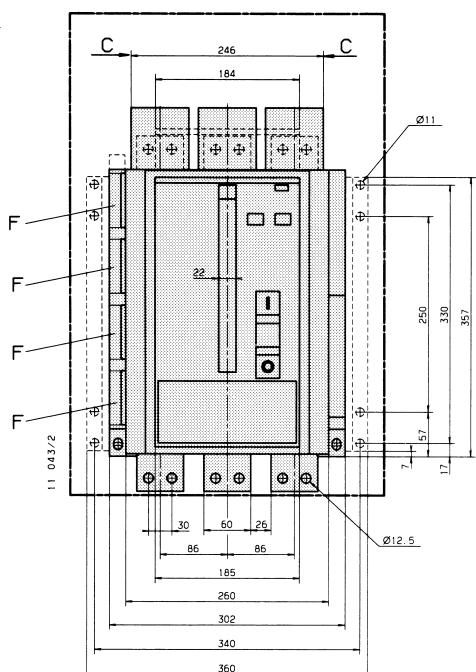
A2 = Arc chute with insert, special version for rated voltage up to 500V

ME07 - Overall dimensions

Types ME1607 to ME2007 - Ranges N, S1, H

Vertical connections

3-pole, frame size 20 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails, the distance from hole to beginning of the rail should amount to max. 11 mm

Y = Insulating screen for vertical connections
Upper edge according to dimensions A1, A2 (not included in delivery scope), angular spacer for attachment to vertical traverses (not included in delivery scope)

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range	Vertical connections							
		Insulated parts				Grounded parts			
		A1	A2	B	C	A1	A2	B	C
AC3 ~ 415V	N	Icn ≤ 35 kA	100	—	100	50	100	—	100
	H, S1	Icn ≤ 55 kA	200	150	100	50	200	150	100
	H	Icn ≤ 80 kA	300	150	100	50	300	250	100
	H	Icn ≤ 100 kA	300	250	100	100	—	300	100
									100
AC3 ~ 500V	H, S1	Icn ≤ 55 kA	250	200	100	75	250	250	100
	H	Icn ≤ 70 kA	300	200	100	75	300	250	100
		Icn ≤ 80 kA	300	250	100	75	(1)	(1)	100
AC3 ~ 690V	H, S1	Icn ≤ 55 kA	—	200	100	75	—	250	100

A1 = Arc chute without insert, standard version.

A2 = Arc chute with insert, special version for rated voltage up to 500V

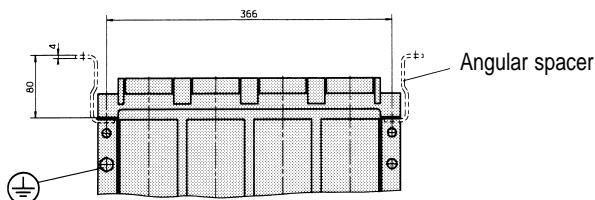
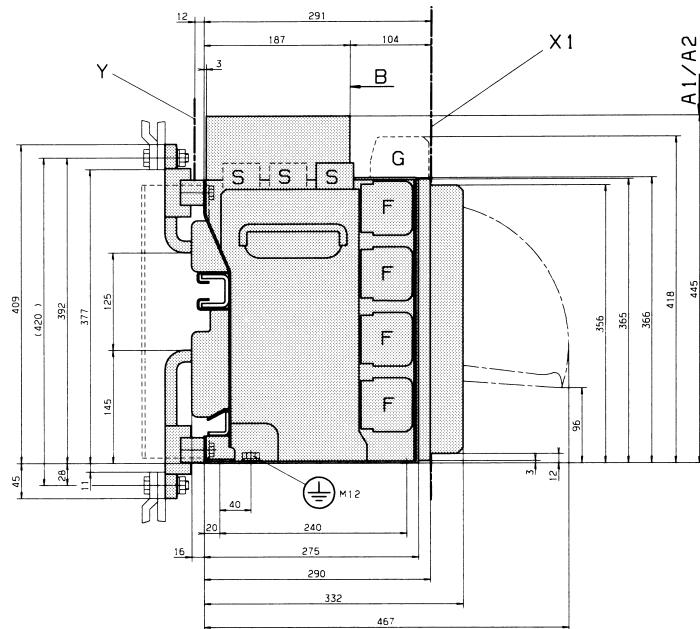
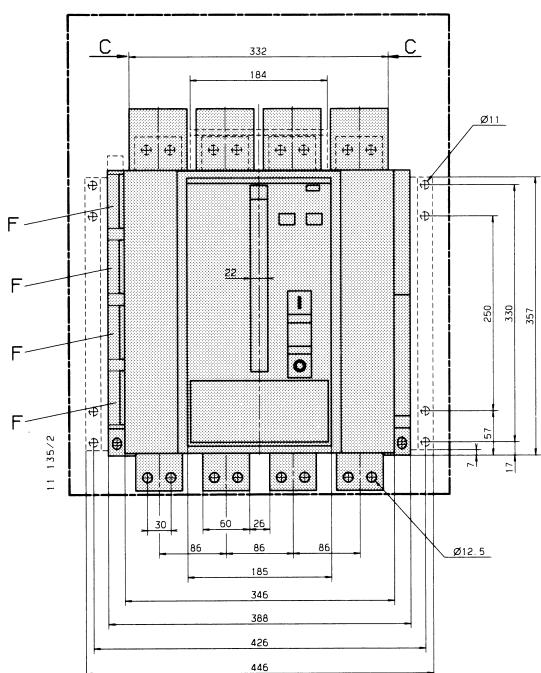
(1) On request.

ME07 - Overall dimensions

Types ME1607 to ME2007 - Ranges N, S1, H

Vertical connections

4-pole, frame size 20 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails, the distance from hole to beginning of the rail should amount to max. 11 mm

Y = Insulating screen for vertical connections
Upper edge according to dimensions A1, A2 (not included in delivery scope), angular spacer for attachment to vertical traverses (not included in delivery scope)

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range	Vertical connections								
		Insulated parts				Grounded parts				
		A1	A2	B	C	A1	A2	B	C	
AC3 ~ 415V	N	Icn ≤ 35 kA	100	—	100	50	100	—	100	75
	H, S1	Icn ≤ 55 kA	200	150	100	50	200	150	100	100
	H	Icn ≤ 80 kA	300	150	100	50	300	250	100	100
	H	Icn ≤ 100 kA	300	250	100	100	—	300	100	100
AC3 ~ 500V	H, S1	Icn ≤ 55 kA	250	200	100	75	250	250	100	100
	H	Icn ≤ 70 kA	300	200	100	75	300	250	100	100
	H	Icn ≤ 80 kA	300	250	100	75	(1)	(1)	100	100
AC3 ~ 690V	H, S1	Icn ≤ 55 kA	—	200	100	75	—	250	100	100

A1 = Arc chute without insert, standard version.

A2 = Arc chute with insert, special version for rated voltage up to 500V

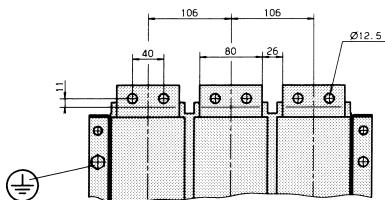
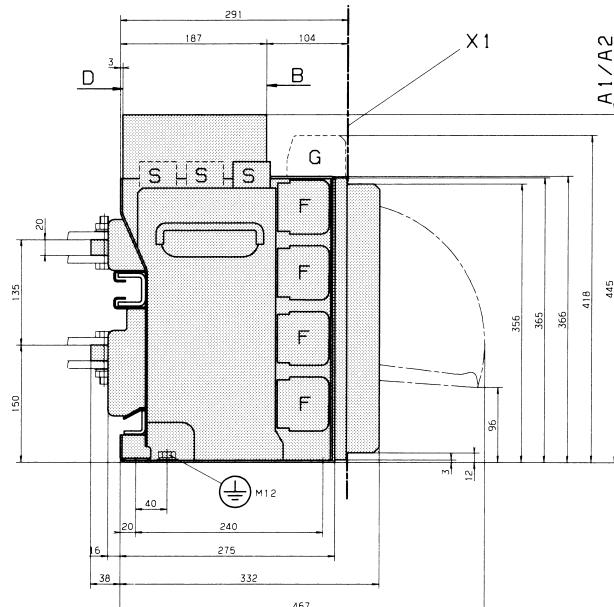
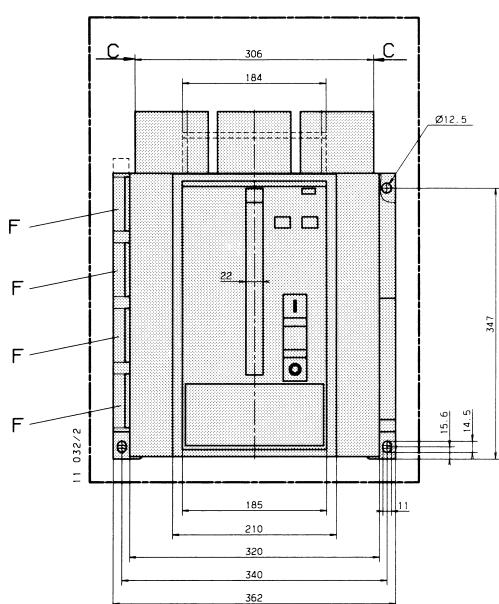
(1) On request.

ME07 - Overall dimensions

Types ME2507 - Ranges N, S1, H

Horizontal connections

3-pole, frame size 30 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails, the distance from hole to beginning of the rail should amount to max. 11 mm

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range	Horizontal connections										
		Insulated parts					Grounded parts					
		A1	A2	B	C	D	A1	A2	B	C	D	
AC3 ~ 415V	N	Icn ≤ 40 kA	75	—	50	50	50	100	—	100	75	100
	H, S1	Icn ≤ 65 kA	250	150	50	50	50	250	150	100	75	100
	H	Icn ≤ 80 kA	250	150	50	50	50	250	150	100	100	100
	H	Icn ≤ 100 kA	250	150	50	50	50	250	200	100	100	100
AC3 ~ 440V	H	Icn ≤ 100 kA	(1)	(1)	(1)	(1)	(1)	250	(1)	100	100	100
AC3 ~ 500V	H, S1	Icn ≤ 65 kA	250	150	100	75	75	250	150	100	100	100
	H	Icn ≤ 70 kA	250	150	100	75	75	250	150	100	100	100
	H	Icn ≤ 90 kA	300	250	100	75	75	300	250	100	100	100
AC3 ~ 690V	H, S1	Icn ≤ 65 kA	—	200	100	75	75	—	200	100	100	100
DC 220V	H	Icn ≤ 60 kA	—	(1)	(1)	(1)	(1)	—	200	100	100	100
DC 440V	H	Icn ≤ 45 kA	—	(1)	(1)	(1)	(1)	—	200	100	100	100
DC 750V	H	Icn ≤ 30 kA	—	(1)	(1)	(1)	(1)	—	200	100	100	100

A1 = Arc chute without insert, standard version.

A2 = Arc chute with insert, special version for rated voltage up to 500V

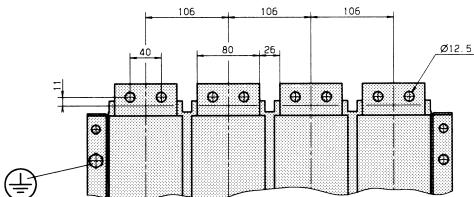
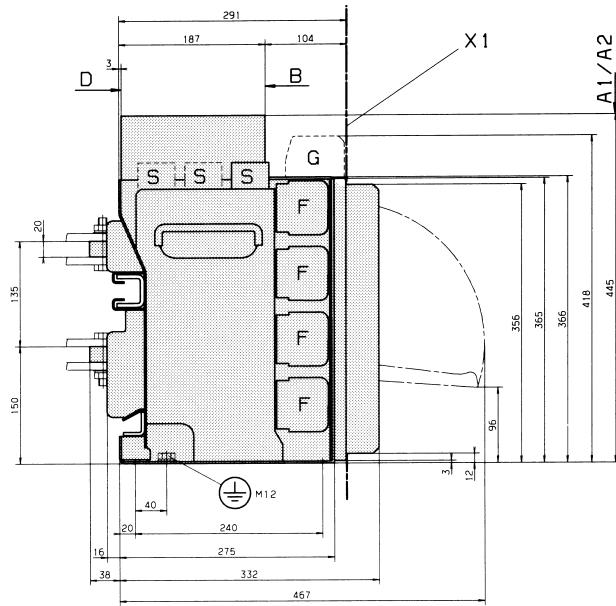
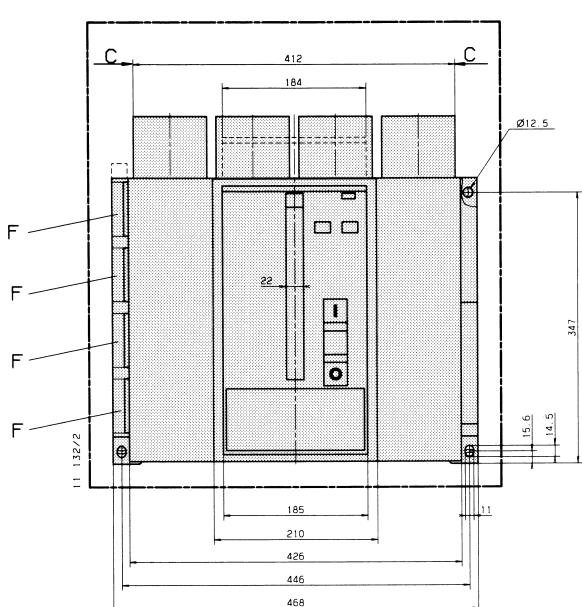
(1) On request.

ME07 - Overall dimensions

Types ME2507 - Ranges N, S1, H

Horizontal connections

4-pole, frame size 30 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails, the distance from hole to beginning of the rail should amount to max. 11 mm

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range	Horizontal connections										
		Insulated parts					Grounded parts					
		A1	A2	B	C	D	A1	A2	B	C	D	
AC3 ~ 415V	N	Icn ≤ 40 kA	75	—	50	50	50	100	—	100	75	100
	H, S1	Icn ≤ 65 kA	250	150	50	50	50	250	150	100	75	100
	H	Icn ≤ 80 kA	250	150	50	50	50	250	150	100	100	100
	H	Icn ≤ 100 kA	250	150	50	50	50	250	200	100	100	100
AC3 ~ 500V	H, S1	Icn ≤ 65 kA	250	150	100	75	75	250	150	100	100	100
	H	Icn ≤ 70 kA	250	200	100	75	75	250	150	100	100	100
	H	Icn ≤ 90 kA	300	250	100	75	75	300	250	100	100	100
AC3 ~ 690V	H, S1	Icn ≤ 65 kA	—	200	100	75	75	—	200	100	100	100

A1 = Arc chute without insert, standard version.

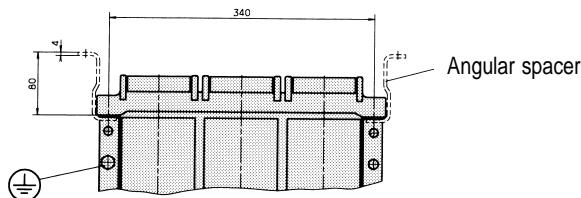
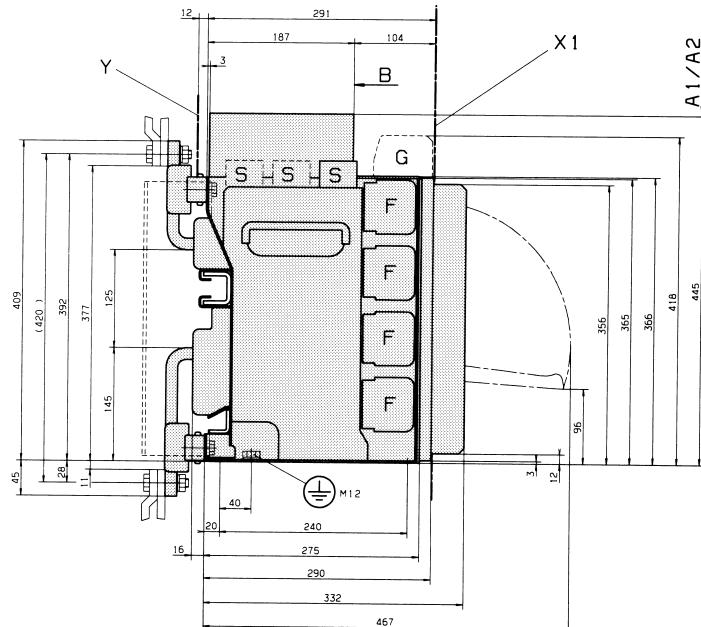
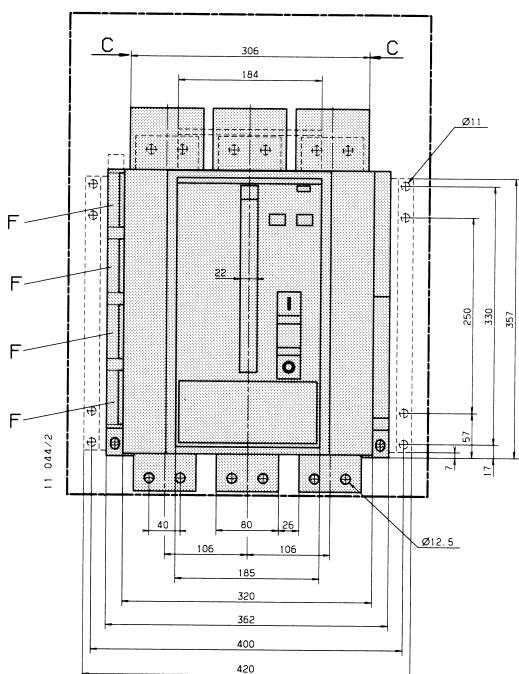
A2 = Arc chute with insert, special version for rated voltage up to 500V

ME07 - Overall dimensions

Types ME2507 - Ranges N, S1, H

Vertical connections

3-pole, frame size 30 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails, the distance from hole to beginning of the rail should amount to max. 11 mm

Y = Insulating screen for vertical connections
Upper edge according to dimensions A1, A2 (not included in delivery scope), angular spacer for attachment to vertical traverses (not included in delivery scope)

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range	Vertical connections							
		Insulated parts				Grounded parts			
		A1	A2	B	C	A1	A2	B	C
AC3 ~ 415V	N	Icn ≤ 40 kA	100	—	100	50	100	—	100
	H, S1	Icn ≤ 65 kA	250	150	100	50	250	150	100
	H	Icn ≤ 80 kA	300	150	100	50	300	200	100
	H	Icn ≤ 100 kA	300	250	100	100	—	300	100
AC3 ~ 500V	H, S1	Icn ≤ 65 kA	300	200	100	75	300	250	100
	H	Icn ≤ 70 kA	300	200	100	75	300	250	100
		(1)	300	100	75	(1)	300	100	100
AC3 ~ 690V	H, S1	Icn ≤ 65 kA	—	200	100	75	—	250	100

A1 = Arc chute without insert, standard version.

A2 = Arc chute with insert, special version for rated voltage up to 500V

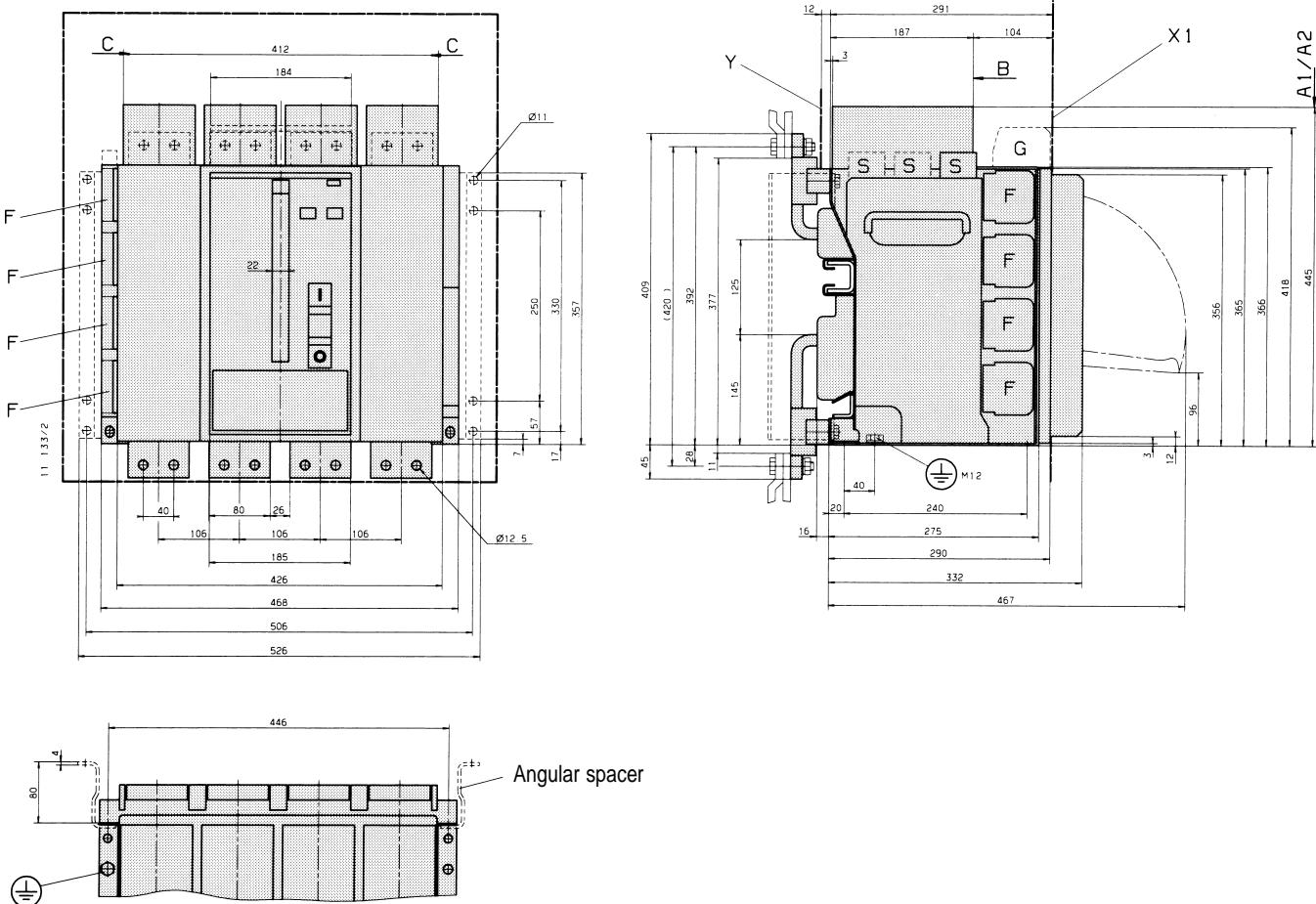
(1) On request.

ME07 - Overall dimensions

Types ME2507 - Ranges N, S1, H

Vertical connections

4-pole, frame size 30 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails, the distance from hole to beginning of the rail should amount to max. 11 mm

Y = Insulating screen for vertical connections
Upper edge according to dimensions A1, A2 (not included in delivery scope), angular spacer for attachment to vertical traverses (not included in delivery scope)

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range	Vertical connections							
		Insulated parts				Grounded parts			
		A1	A2	B	C	A1	A2	B	C
AC3 ~ 415V	N	Icn ≤ 40 kA	100	—	100	50	100	—	100
	H, S1	Icn ≤ 65 kA	250	150	100	50	250	150	100
	H	Icn ≤ 80 kA	300	150	100	50	300	250	100
	H	Icn ≤ 100 kA	300	250	100	100	—	300	100
AC3 ~ 500V	H, S1	Icn ≤ 65 kA	300	200	100	75	300	250	100
	H	Icn ≤ 70 kA	300	200	100	75	300	250	100
		Icn ≤ 90 kA	(1)	300	100	75	(1)	300	100
AC3 ~ 690V	H, S1	Icn ≤ 65 kA	—	200	100	75	—	250	100

A1 = Arc chute without insert, standard version.

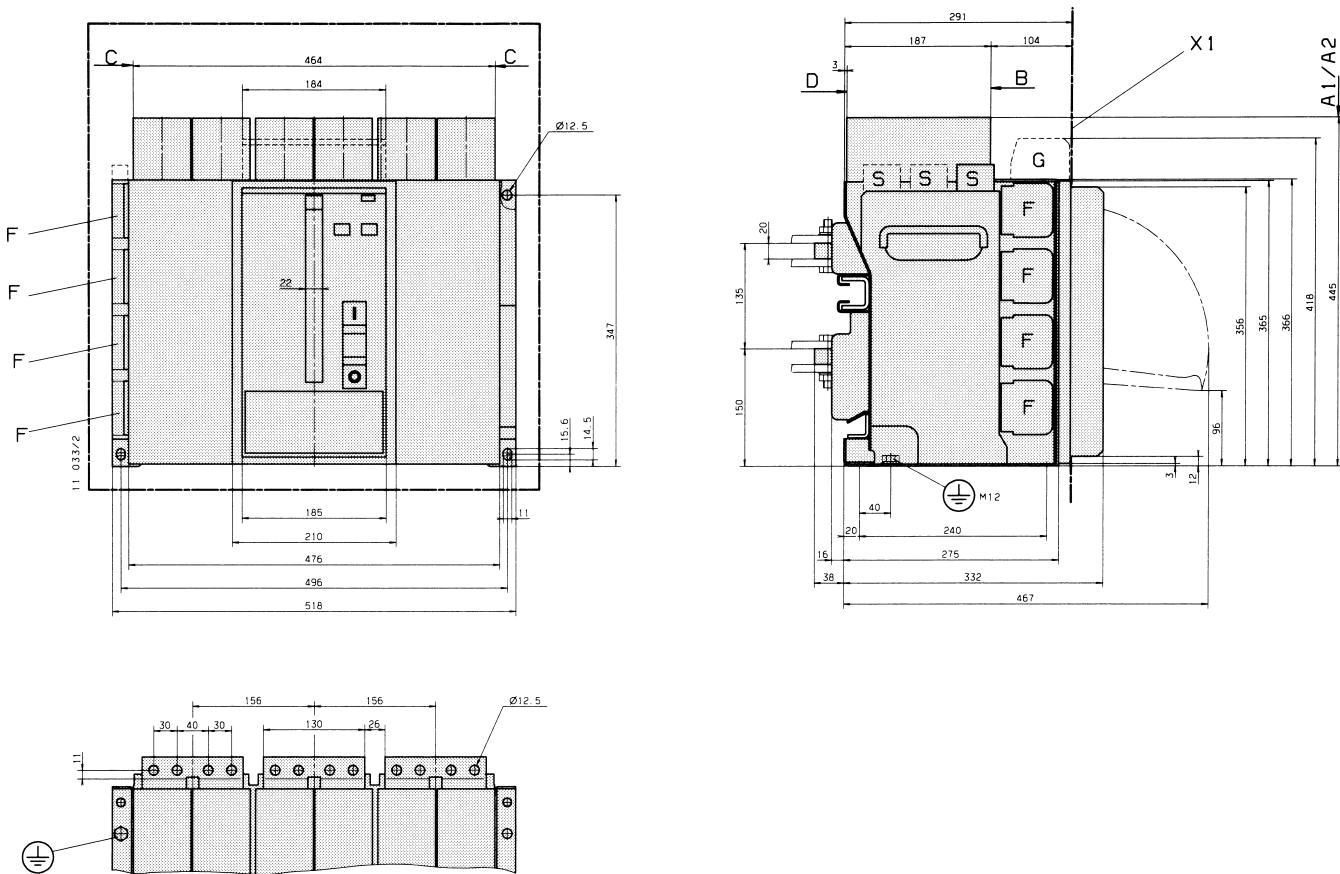
A2 = Arc chute with insert, special version for rated voltage up to 500V

(1) On request.

Types ME3207 - Ranges N, S1, H

Horizontal connections

3-pole, frame size 40 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails,
the distance from hole to beginning of
the rail should amount to max. 11 mm

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range	Horizontal connections										
		Insulated parts					Grounded parts					
		A1	A2	B	C	D	A1	A2	B	C	D	
AC3 ~ 415V	N	Icn ≤ 40 kA	100	–	50	50	50	100	–	100	75	100
	H, S1	Icn ≤ 70 kA	200	150	50	50	50	200	200	100	75	100
	H	Icn ≤ 80 kA	200	150	50	50	50	250	250	100	100	100
	H	Icn ≤ 100 kA	250	250	100	50	100	300	250	100	100	100
AC3 ~ 440V	H	Icn ≤ 100 kA	(1)	(1)	(1)	(1)	(1)	300	(1)	100	100	100
AC3 ~ 500V	H, S1	Icn ≤ 70 kA	250	200	100	75	75	250	200	100	100	100
	H	Icn ≤ 80 kA	250	200	100	75	75	300	200	100	100	100
	H	Icn ≤ 90 kA	300	300	100	75	75	(1)	(1)	100	100	100
AC3 ~ 690V	H, S1	Icn ≤ 70 kA	–	200	100	75	100	–	200	100	100	100
	H	Icn ≤ 80 kA	–	200	100	75	100	–	250	100	100	100
DC 220V	H	Icn ≤ 65 kA	–	300	100	100	100	–	–	–	–	–
DC 440V	H	Icn ≤ 50 kA	–	(1)	(1)	(1)	(1)	–	200	100	100	100
DC 750V	H	Icn ≤ 30 kA	–	(1)	(1)	(1)	(1)	–	300	100	100	100

A1 = Arc chute without insert, standard version.

A2 = Arc chute with insert, standard version

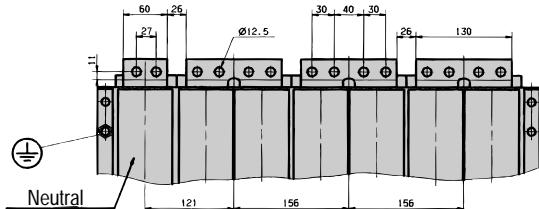
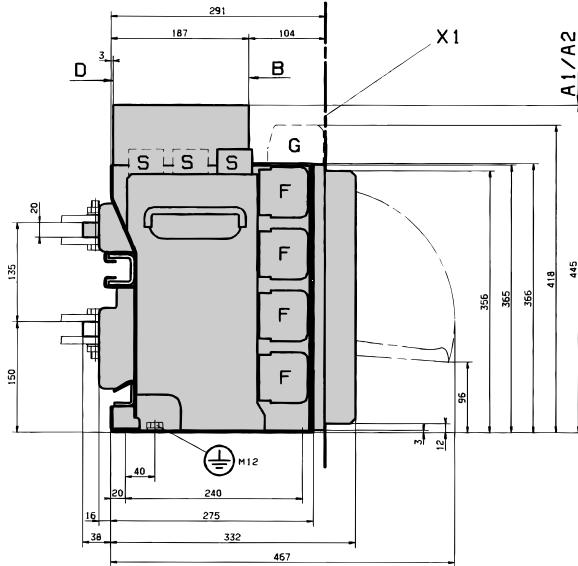
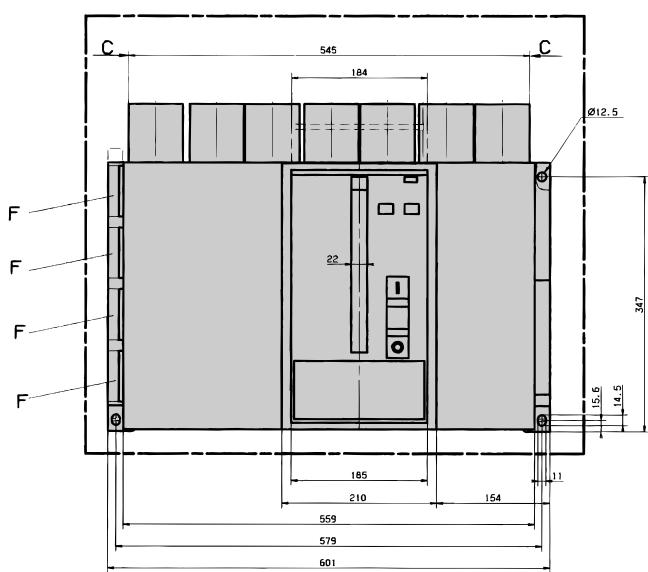
(1) On request.

ME07 - Overall dimensions

Types ME3207 - Ranges S1, H

Horizontal connections

4-pole, frame size 40 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails, the distance from hole to beginning of the rail should amount to max. 11 mm

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range	Horizontal connections										
		Insulated parts					Grounded parts					
		A1	A2	B	C	D	A1	A2	B	C	D	
AC3 ~ 415V	S1	Icn ≤ 65 kA	200	150	50	50	50	200	200	100	75	100
	H	Icn ≤ 80 kA	200	150	50	50	50	250	250	100	100	100
	H	Icn ≤ 100 kA	250	250	100	50	100	300	250	100	100	100
AC3 ~ 440V	H	Icn ≤ 100 kA	(1)	(1)	(1)	(1)	(1)	300	(1)	100	100	100
AC3 ~ 500V	S1	Icn ≤ 65 kA	250	200	100	75	75	250	200	100	100	100
	H	Icn ≤ 80 kA	250	200	100	75	75	300	200	100	100	100
	H	Icn ≤ 90 kA	300	300	100	75	75	(1)	100	100	100	100
AC3 ~ 690V	S1	Icn ≤ 65 kA	—	200	100	75	100	—	200	100	100	100
	H	Icn ≤ 80 kA	—	200	100	75	100	—	250	100	100	100

A1 = Arc chute without insert, standard version.

A2 = Arc chute with insert, special version for rated voltage up to 500V

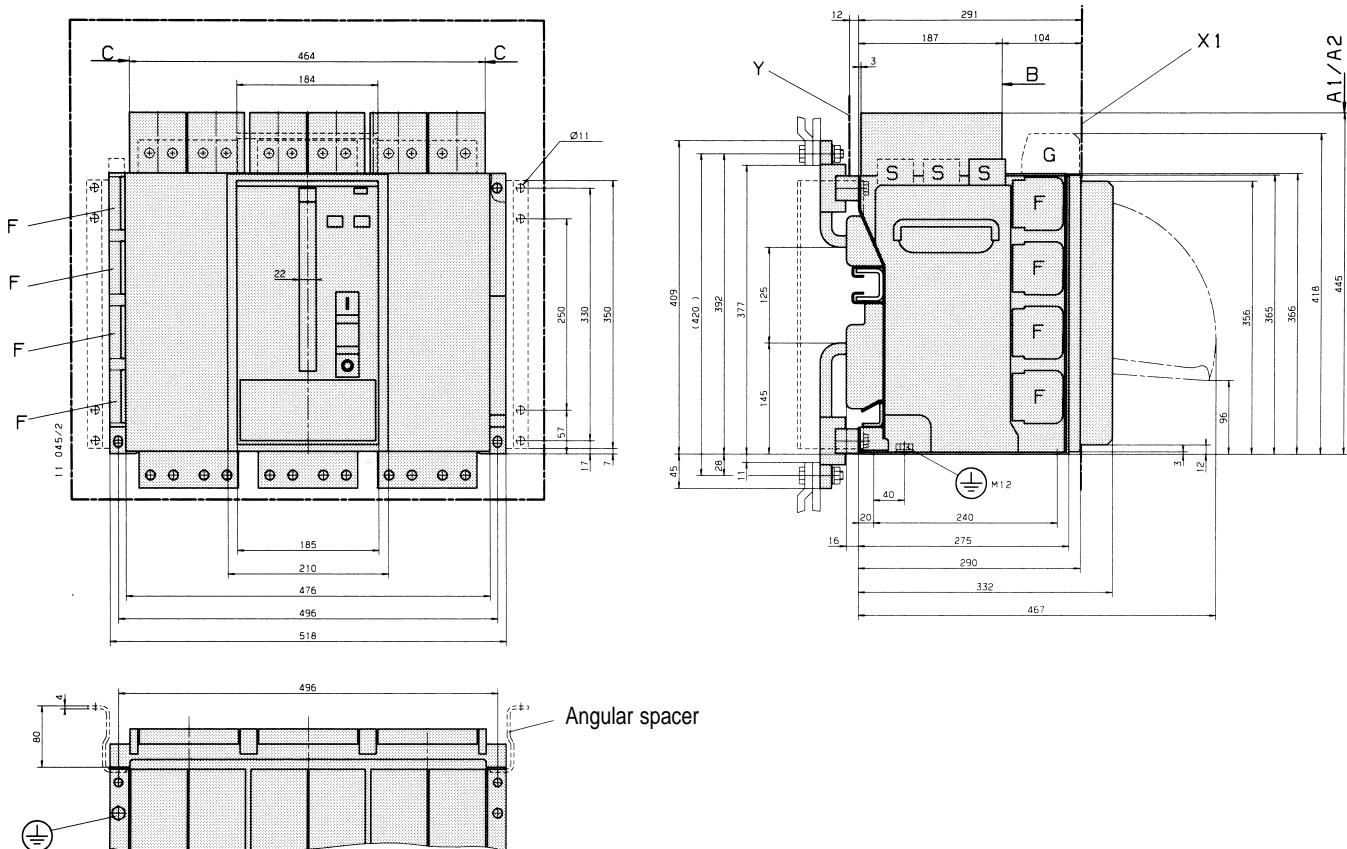
(1) On request.

ME07 - Overall dimensions

Types ME3207 - Ranges N, S1, H

Vertical connections

3-pole, frame size 40 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails, the distance from hole to beginning of the rail should amount to max. 11 mm

Y = Insulating screen for vertical connections
Upper edge according to dimensions A1, A2 (not included in delivery scope),
angular spacer for attachment to vertical traverses (not included in delivery scope)

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range	Vertical connections							
		Insulated parts				Grounded parts			
		A1	A2	B	C	A1	A2	B	C
AC3 ~ 415V	N	Icn ≤ 40 kA	100	—	100	50	100	—	100
	H, S1	Icn ≤ 70 kA	250	150	100	50	250	200	100
	H	Icn ≤ 80 kA	250	150	100	50	300	250	100
	H	Icn ≤ 100 kA	300	250	100	100	—	300	100
									100
AC3 ~ 500V	H, S1	Icn ≤ 70 kA	250	200	100	75	300	250	100
	H	Icn ≤ 80 kA	250	200	100	75	300	250	100
		(1)	300	100	100	100	(1)	100	100
AC3 ~ 690V	H, S1	Icn ≤ 70 kA	—	200	100	100	—	250	100
	H	Icn ≤ 80 kA	—	250	100	100	—	300	100

A1 = Arc chute without insert, standard version.

A2 = Arc chute with insert, special version for rated voltage up to 500V

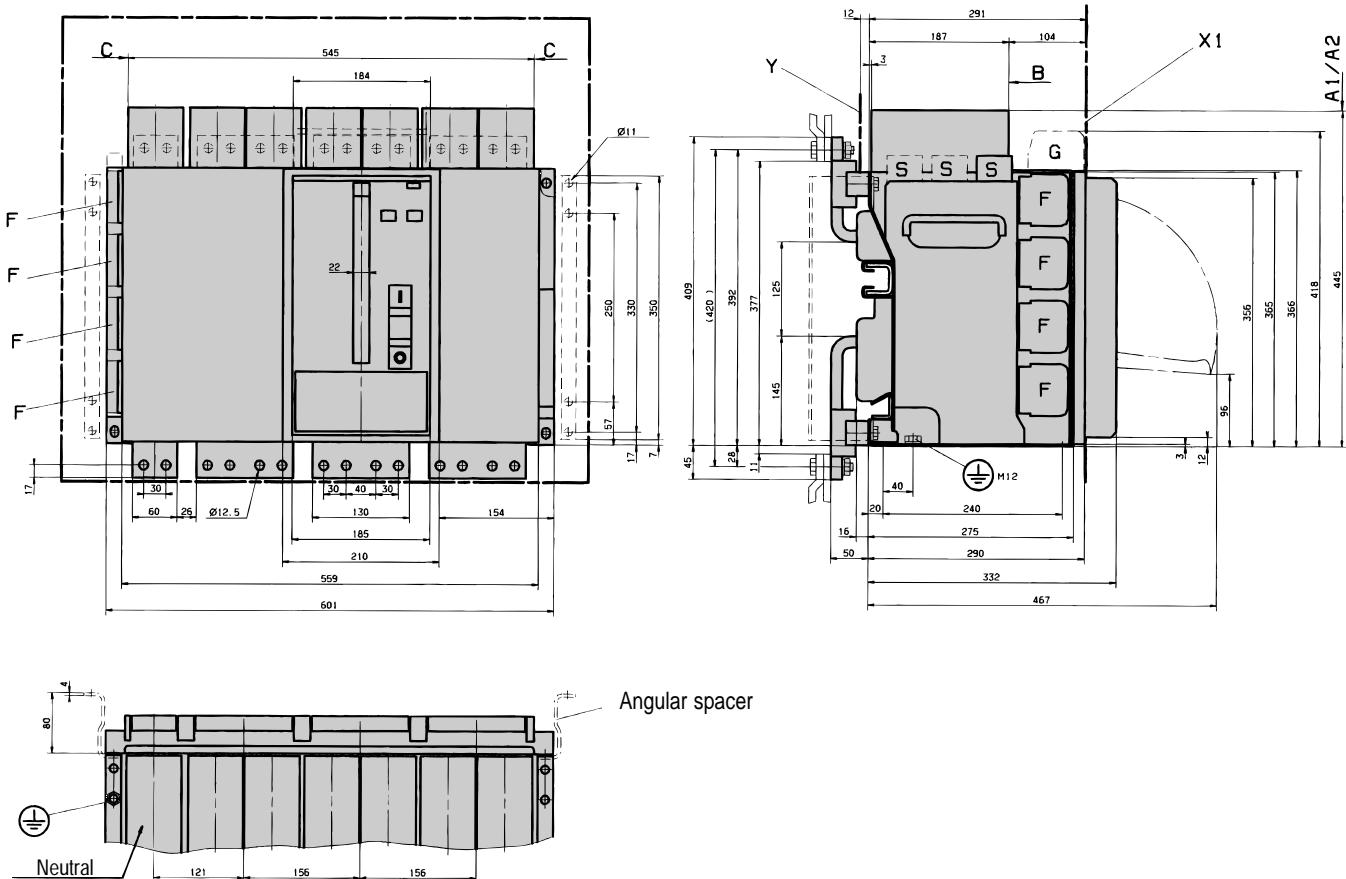
(1) On request.

ME07 - Overall dimensions

Types ME3207 - Ranges S1, H

Vertical connections

4-pole, frame size 40 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails, the distance from hole to beginning of the rail should amount to max. 11 mm

Y = Insulating screen for vertical connections
Upper edge according to dimensions A1, A2 (not included in delivery scope), angular spacer for attachment to vertical traverses (not included in delivery scope)

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range	Vertical connections							
		Insulated parts				Grounded parts			
		A1	A2	B	C	A1	A2	B	C
AC3 ~ 415V	S1	Icn ≤ 65 kA	250	150	100	50	250	200	100
	H	Icn ≤ 80 kA	250	150	100	50	300	250	100
	H	Icn ≤ 100 kA	300	250	100	100	—	300	100
AC3 ~ 500V	S1	Icn ≤ 65 kA	250	200	100	75	300	250	100
	H	Icn ≤ 80 kA	250	200	100	75	300	250	100
		Icn ≤ 90 kA	(1)	300	100	100	(1)	(1)	100
AC3 ~ 690V	S1	Icn ≤ 65 kA	—	200	100	100	—	250	100
	H	Icn ≤ 80 kA	—	250	100	100	—	300	100

A1 = Arc chute without insert, standard version.

A2 = Arc chute with insert, special version for rated voltage up to 500V

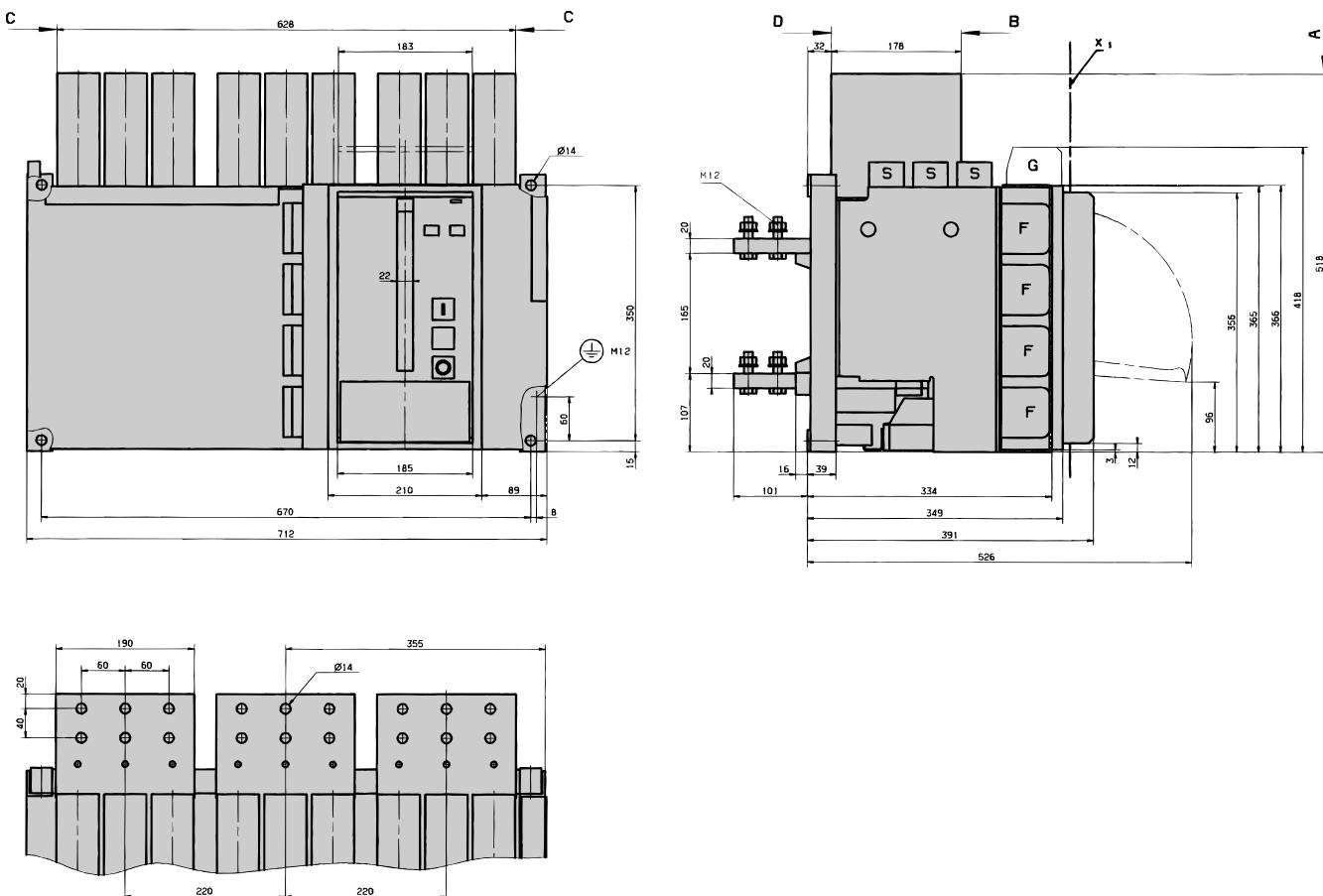
(1) On request.

ME07 - Overall dimensions

Type ME4007S

Horizontal connections

3-pole, frame size 50 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails, the distance from hole to beginning of the rail should amount to max. 11 mm

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

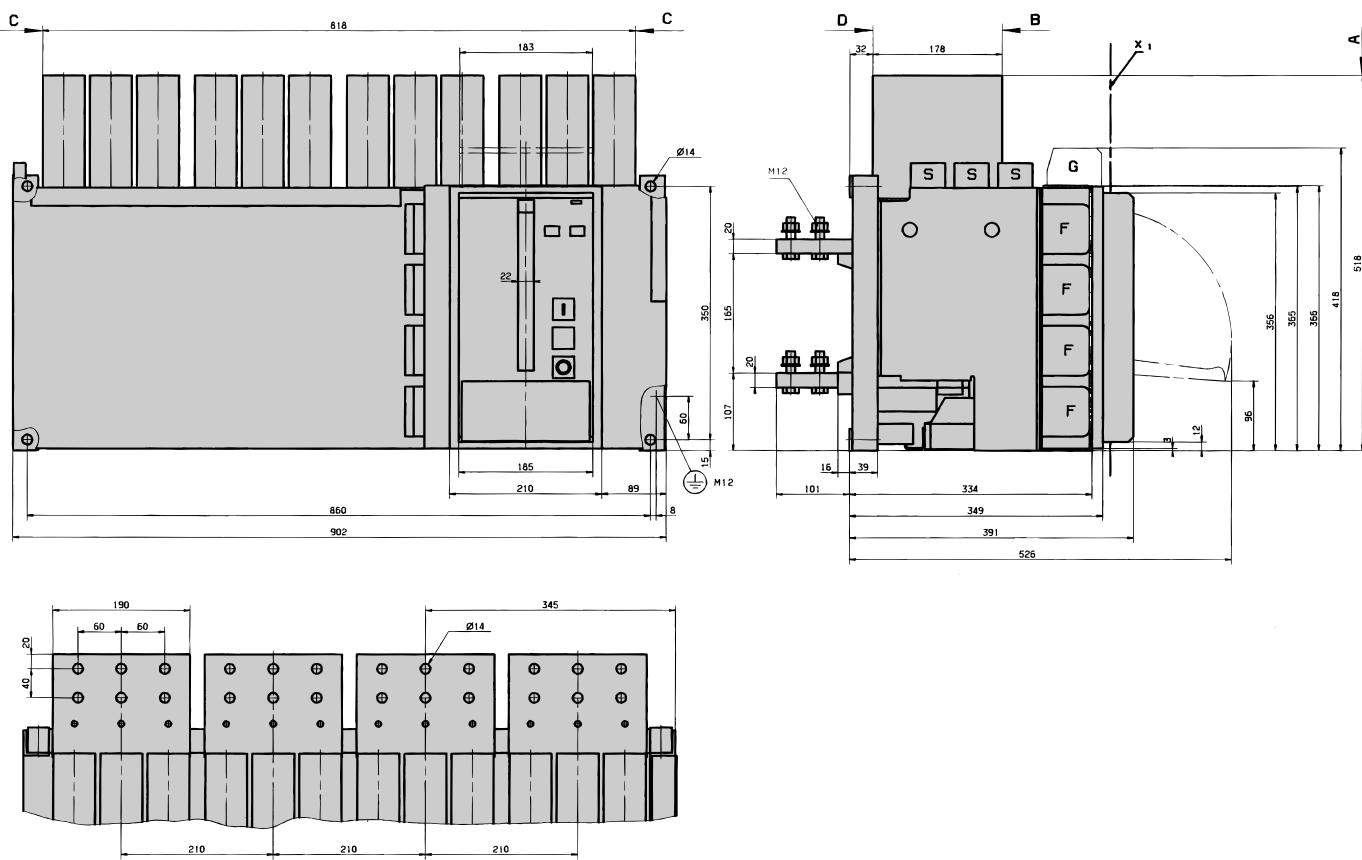
Operating voltage	Range	Horizontal connections							
		Insulated parts				Grounded parts			
		A	B	C	D	A	B	C	D
AC3 ~ 415V	S	Icn ≤ 100 kA	250	100	100	100	250	100	100
AC3 ~ 440V	S	Icn ≤ 100 kA	250	100	100	100	250	100	100
AC3 ~ 500V	S	Icn ≤ 100 kA	250	100	100	100	250	100	100
AC3 ~ 690V	S	Icn ≤ 100 kA	250	100	100	100	250	100	100

ME07 - Overall dimensions

Type ME4007S

Horizontal connections

4-pole, frame size 50 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails, the distance from hole to beginning of the rail should amount to max. 11 mm

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

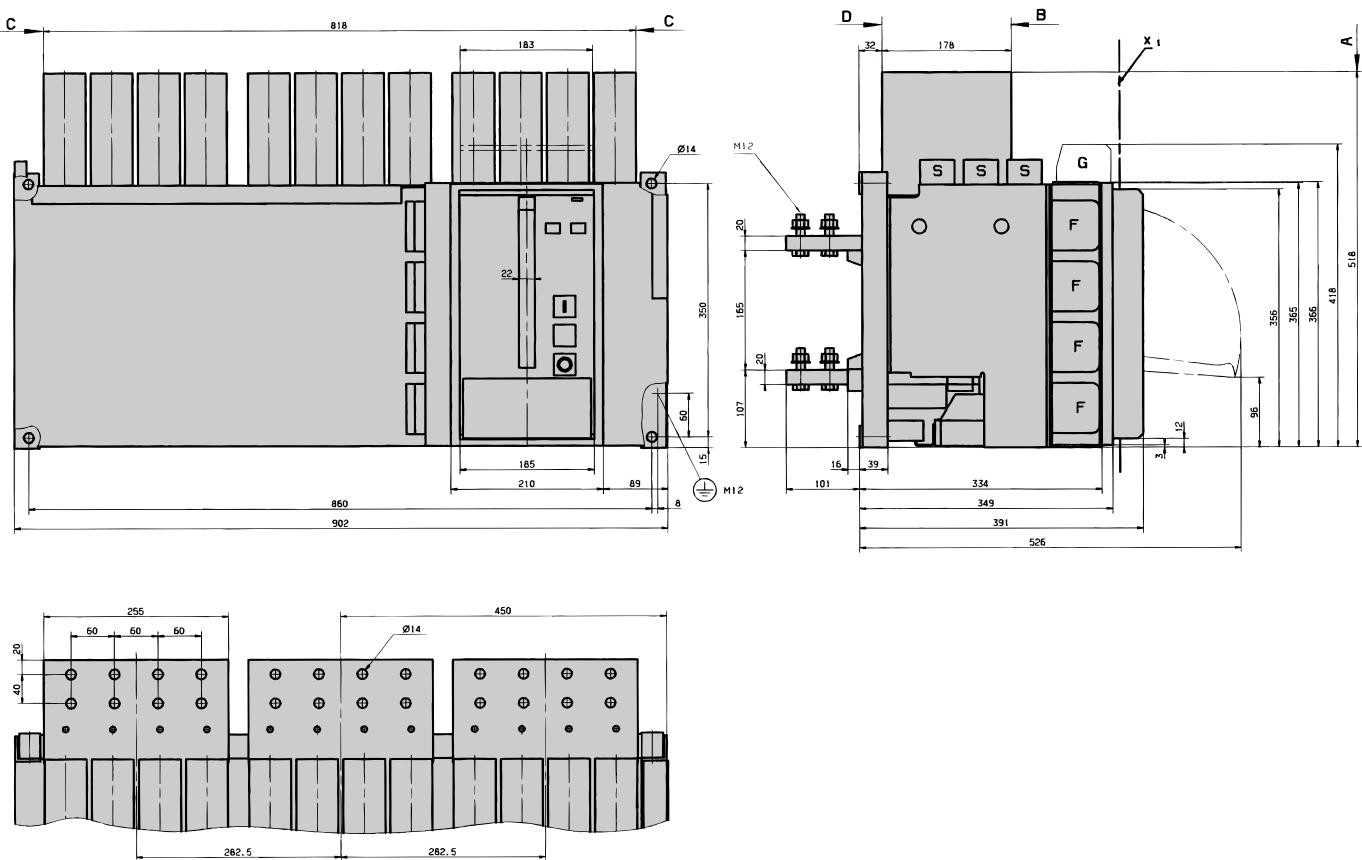
Operating voltage	Range	Horizontal connections							
		Insulated parts				Grounded parts			
		A	B	C	D	A	B	C	D
AC3 ~ 415V	S	Icn ≤ 100 kA	250	100	100	100	250	100	100
AC3 ~ 500V	S	Icn ≤ 100 kA	250	100	100	100	250	100	100
AC3 ~ 690V	S	Icn ≤ 100 kA	250	100	100	100	250	100	100

ME07 - Overall dimensions

Types ME5007S/6307S⁽¹⁾

Horizontal connections

3-pole, frame size 60/70 - Dimensions in mm



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

X2 = When punching the connecting rails, the distance from hole to beginning of the rail should amount to max. 11 mm

Safety clearances

Minimum clearances of arc chute to insulated or grounded parts

Operating voltage	Range	Horizontal connections							
		Insulated parts				Grounded parts			
		A	B	C	D	A	B	C	D
AC3 ~ 415V	S	Icn ≤ 100 kA	200	100	100	100	200	100	100
AC3 ~ 440V	S	Icn ≤ 100 kA	200	100	100	100	200	100	100
AC3 ~ 500V	S	Icn ≤ 100 kA	200	100	100	100	200	100	100
AC3 ~ 690V	S	Icn ≤ 100 kA	200	100	100	100	200	100	100

(1) ME/MET 6307S: only available with withdrawable technique.

ME07 - Overall dimensions

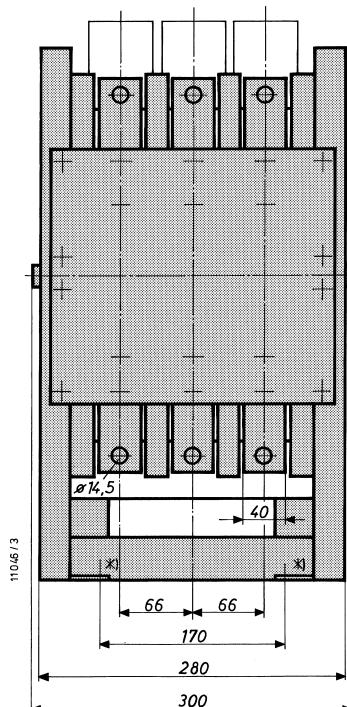
Type ME637 to ME1257 - Ranges N, S1, H

3-pole

Frame size 10, type T10v1, T10v2

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



* Base fixing

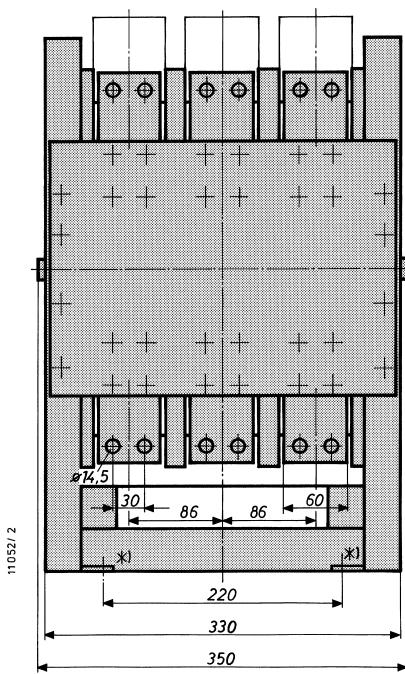
Type ME1607 to ME2007 - Ranges N, S1, H

3-pole

Frame size 20, type T20v1, T20v2

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



* Base fixing

ME07 - Overall dimensions

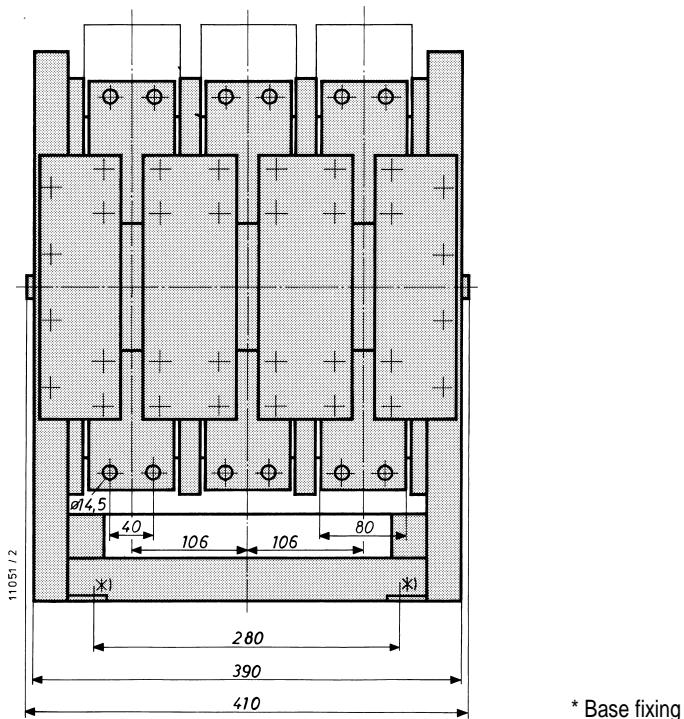
Type ME2507 - Ranges N, S1, H

3-pole

Frame size 30, type T30v

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



* Base fixing

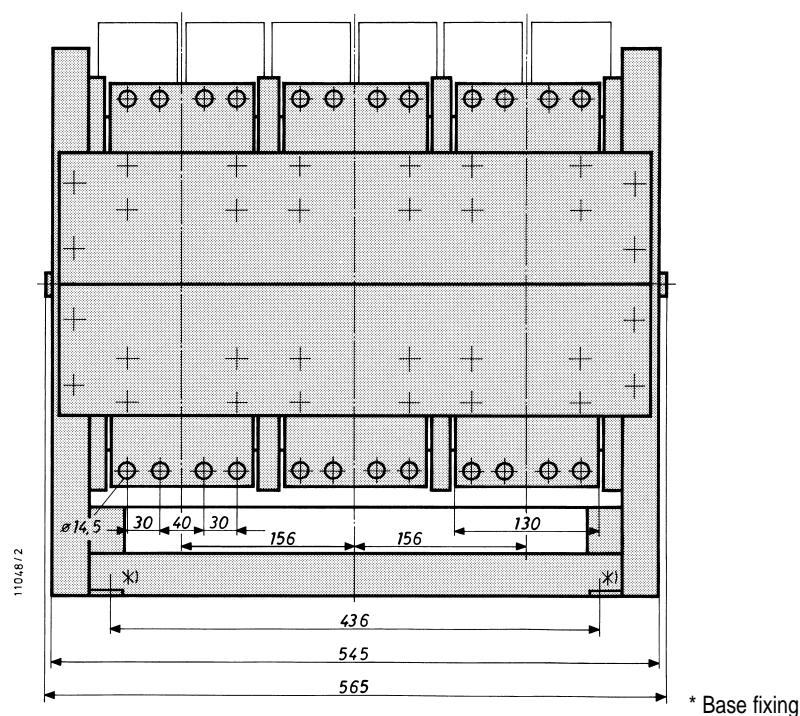
Type ME3207 - Ranges N, S1, H

3-pole

Frame size 40, type T40v

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



* Base fixing

ME07 - Overall dimensions

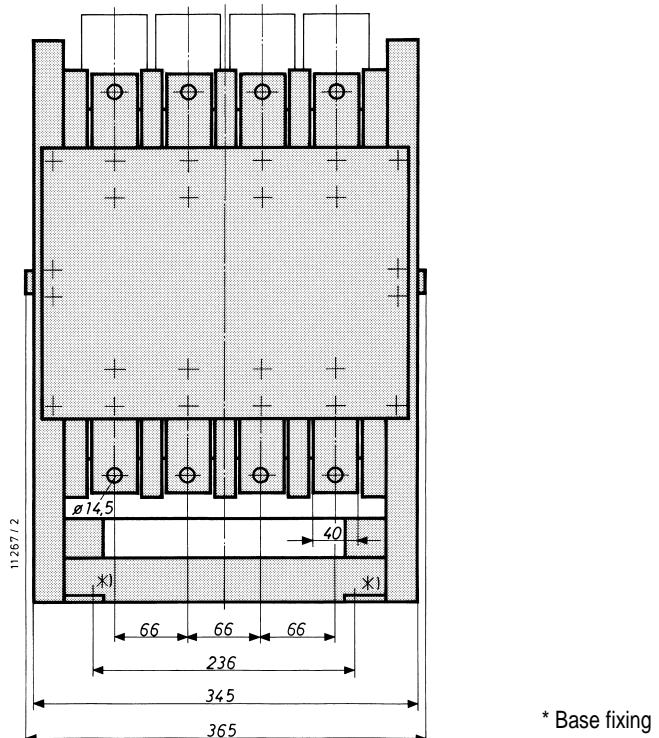
Type ME637 to ME1257 - Ranges N, S1, H/IV

4-pole

Frame size 10/IV, type T10v1/IV, T10v2/IV

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



* Base fixing

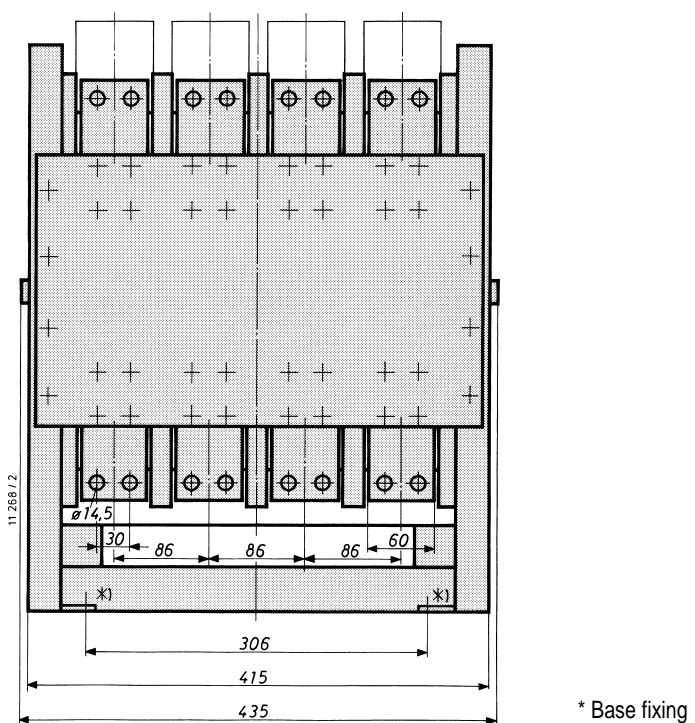
Type ME1607 to ME2007 - Ranges N, S1, H/IV

4-pole

Frame size 20/IV, type T20v1/IV, T20v2/IV

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



* Base fixing

ME07 - Overall dimensions

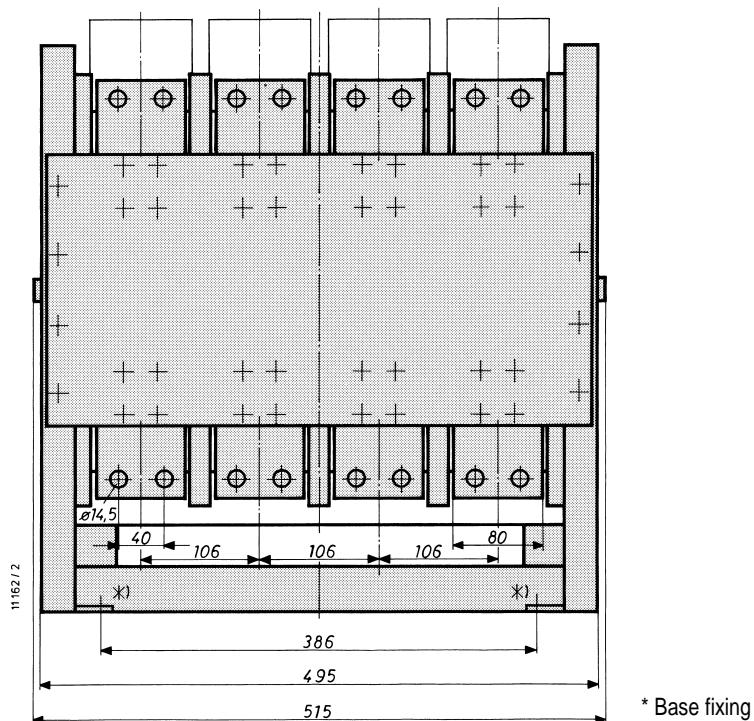
Type ME2507 - Ranges N, S1, H/IV

4-pole

Frame size 30/IV, type T30v/IV

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



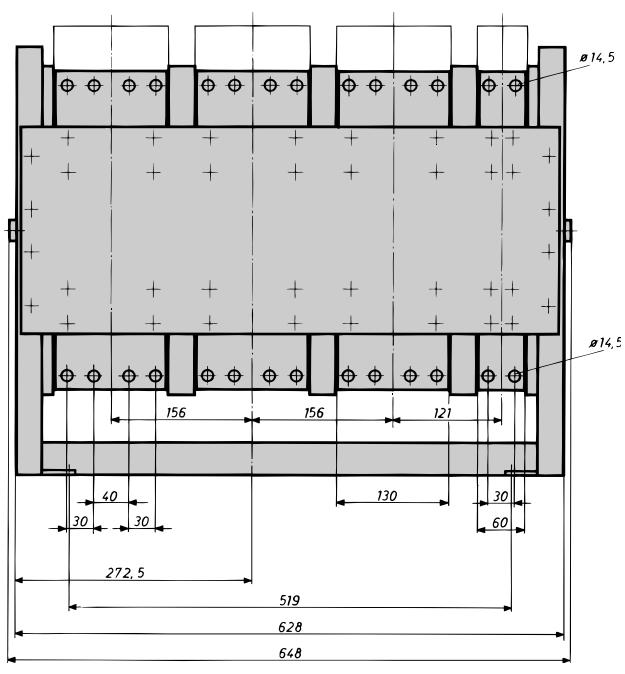
Type ME3207 - Ranges S1, H/IV

4-pole

Frame size 40/IV, type T40v/IV

Rear view - Dimensions in mm

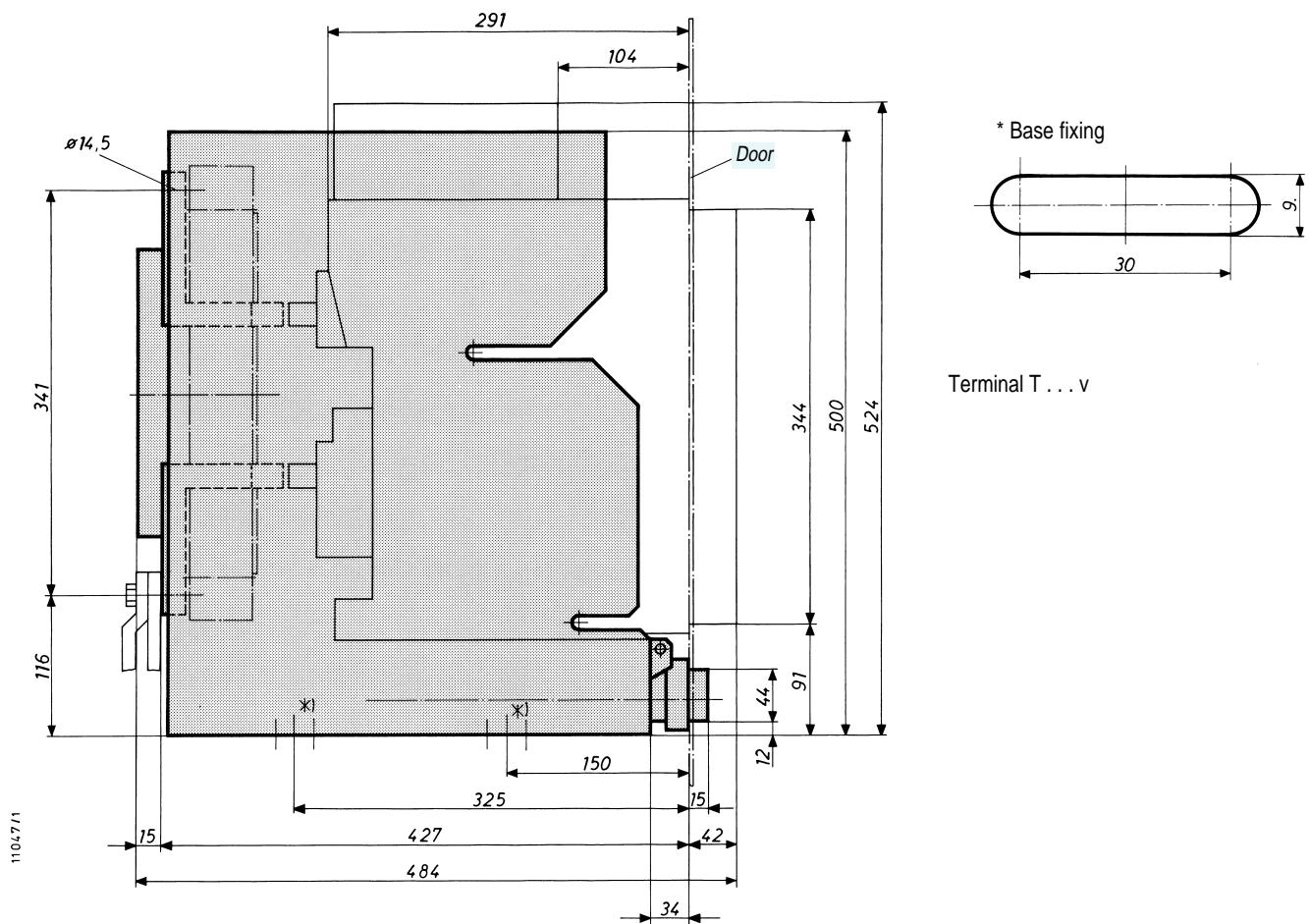
Safety clearance see dimensional drawings of breaker



ME07 - Overall dimensions

Type ME637 to ME3207 - Ranges N, S1, H

Side view - Dimensions in mm



ME07 - Overall dimensions

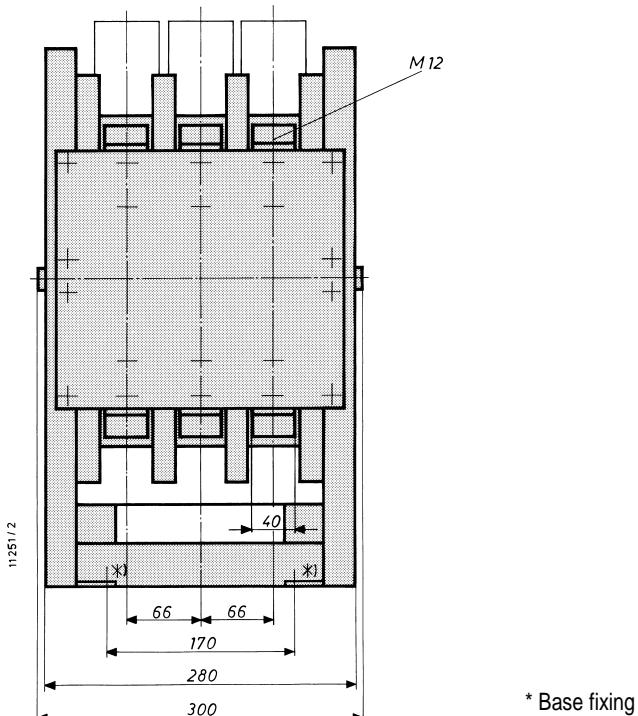
Type ME637 to ME1257 - Ranges N, S1, H

3-pole

Frame size 10, type T10w1, T10w2

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



* Base fixing

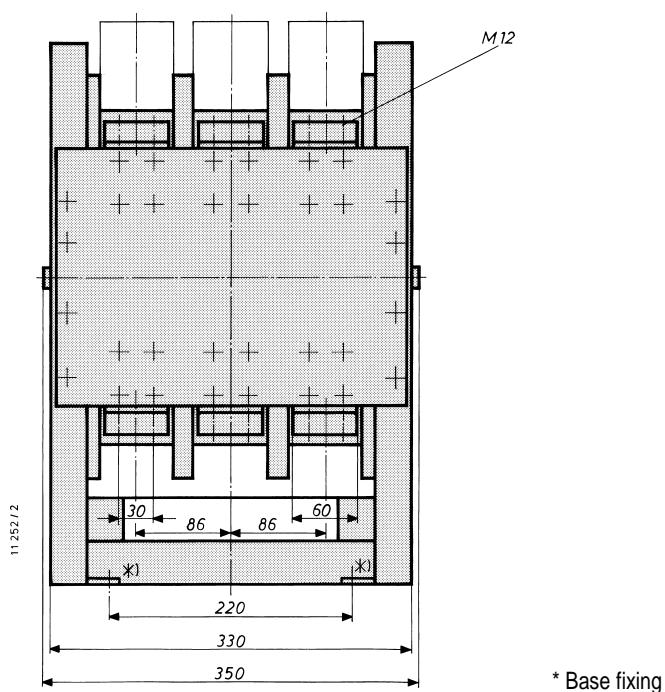
Type ME1607 to ME2007 - Ranges N, S1, H

3-pole

Frame size 20, type T20w1, T20w2

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



* Base fixing

ME07 - Overall dimensions

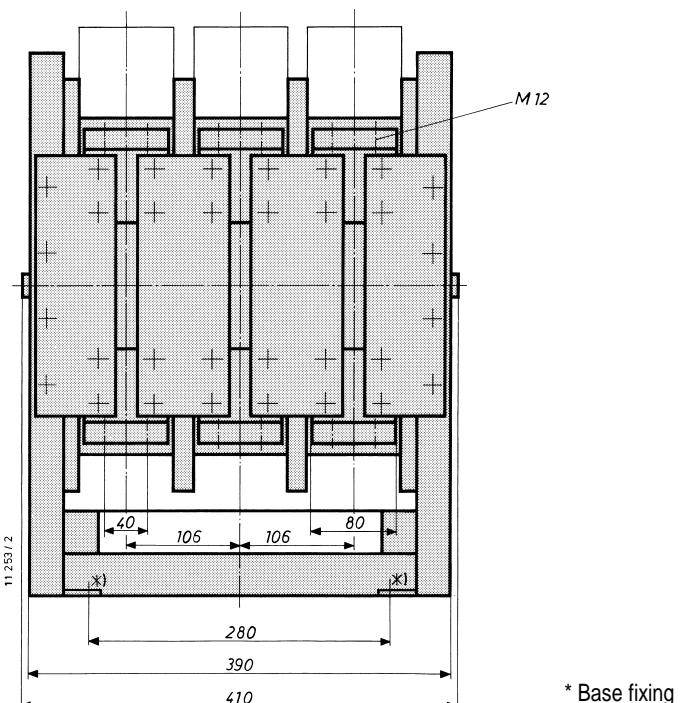
Type ME2507 - Ranges N, S1, H

3-pole

Frame size 30, type T30w

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



* Base fixing

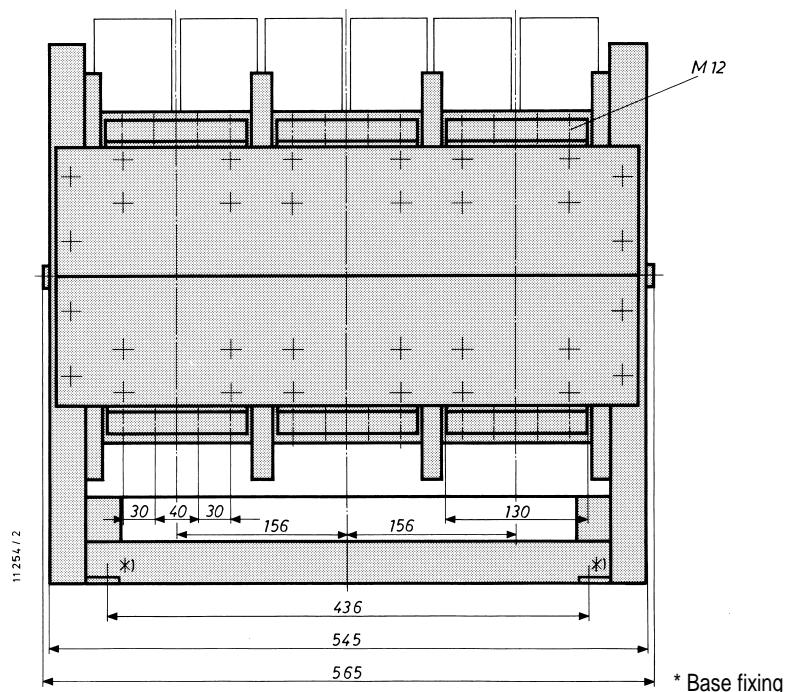
Type ME3207 - Ranges N, S1, H

3-pole

Frame size 40, type T40w

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



* Base fixing

ME07 - Overall dimensions

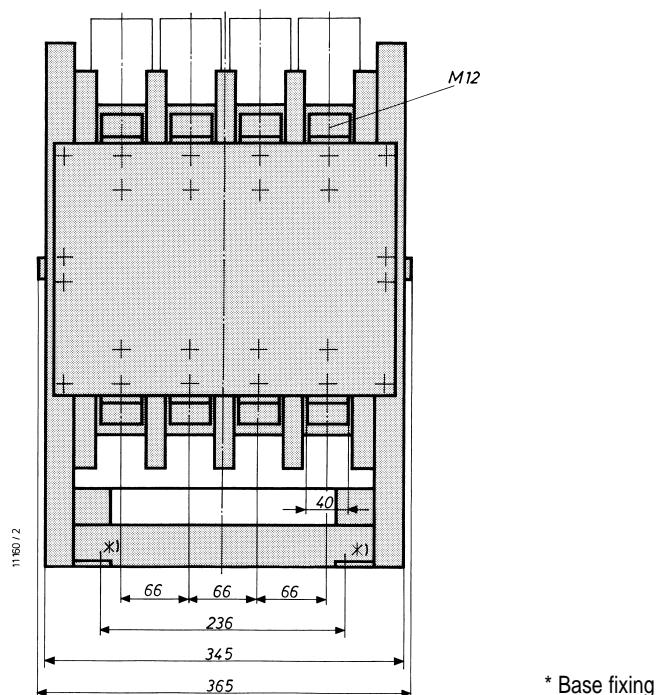
Type ME637 to ME1257 - Ranges N, S1, H/IV

4-pole

Frame size 10/IV, type T10w1/IV, T10w2/IV

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



* Base fixing

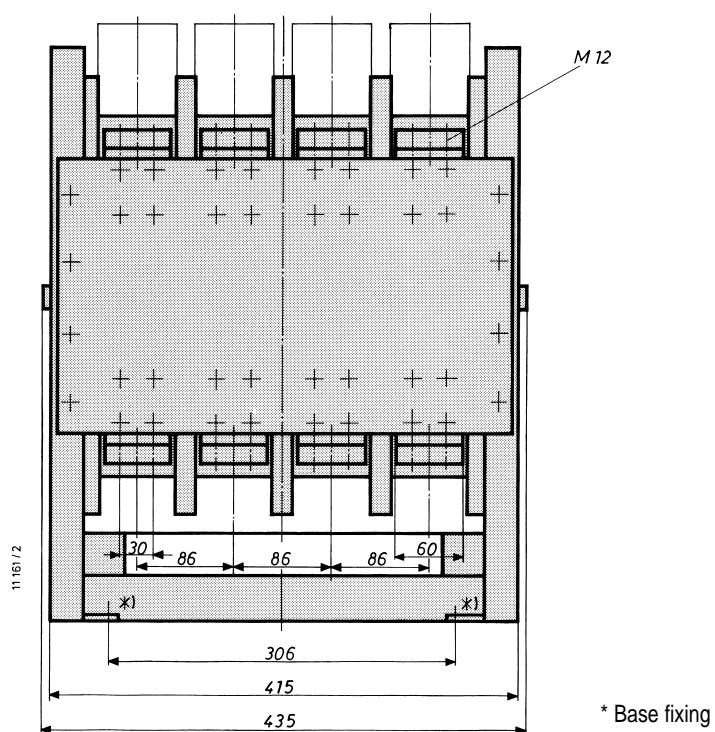
Type ME1607 to ME2007 - Ranges N, S1, H/IV

4-pole

Frame size 20/IV, type T20w1/IV, T20w2/IV

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



* Base fixing

ME07 - Overall dimensions

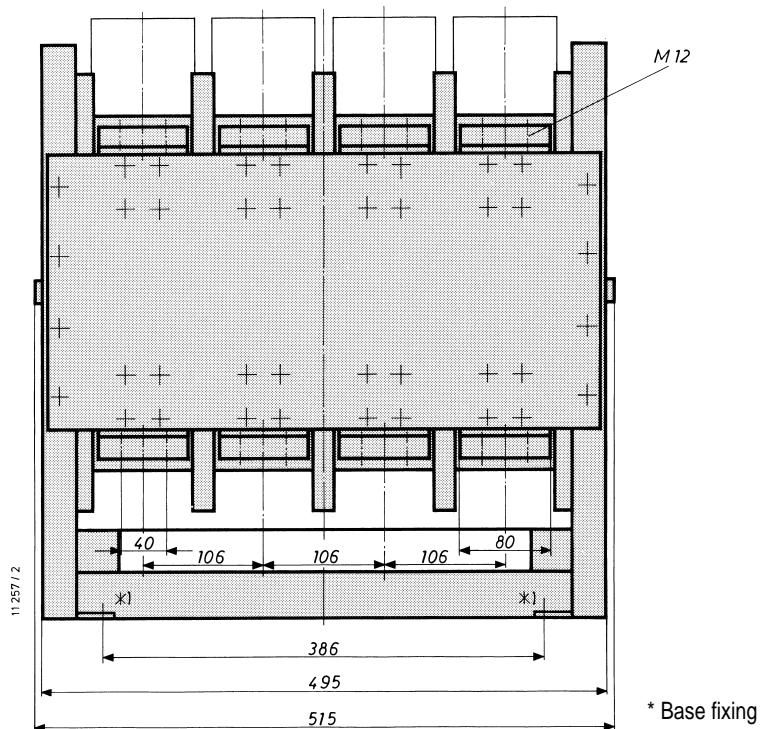
Type ME2507 - Ranges N, S1, H/IV

4-pole

Frame size 30/IV, type T30w/IV

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



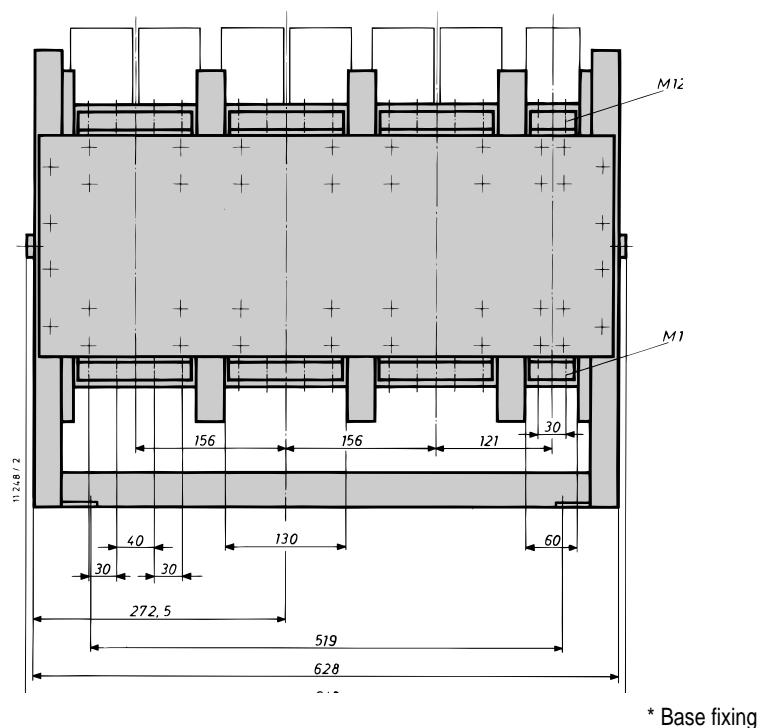
Type ME3207 - Ranges S1, H/IV

4-pole

Frame size 40/IV, type T40w/IV

Rear view - Dimensions in mm

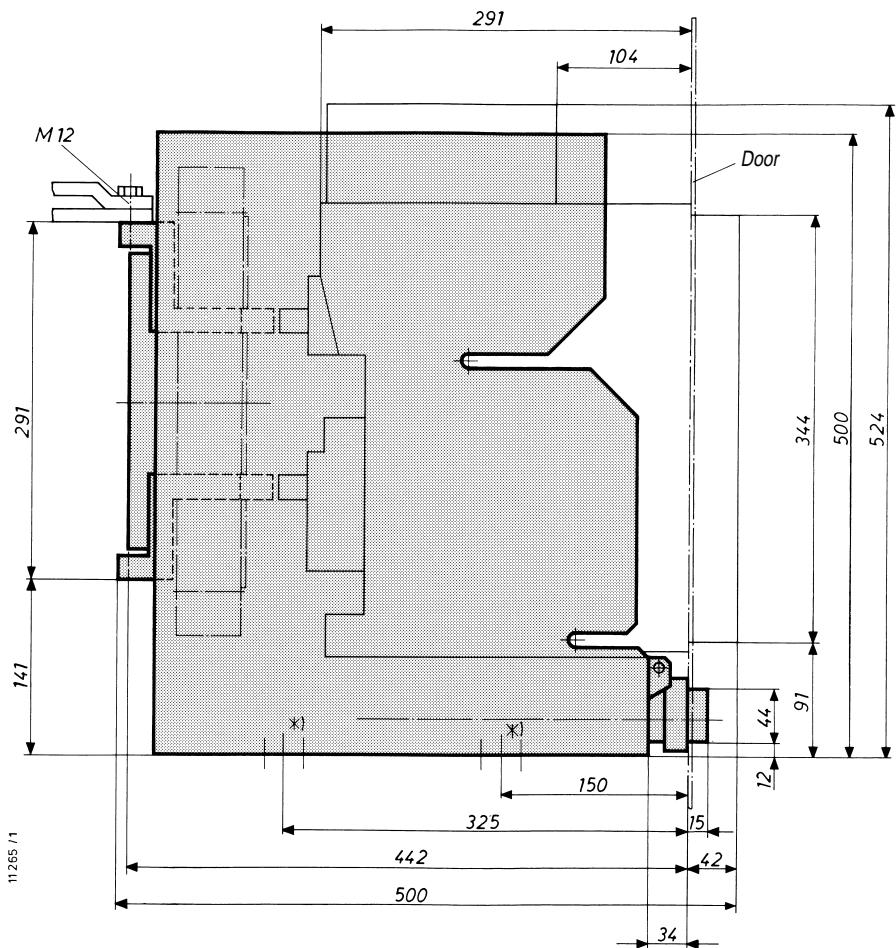
Safety clearance see dimensional drawings of breaker



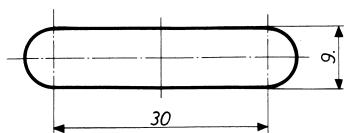
ME07 - Overall dimensions

Type ME637 to ME3207 - Ranges N, S1, H

Side view - Dimensions in mm



* Base fixing



Terminal T . . . w

ME07 - Overall dimensions

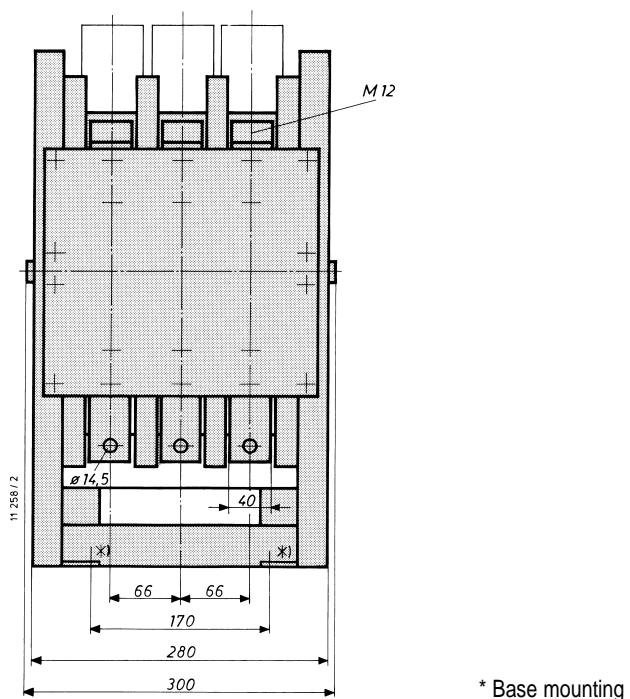
Type ME637 to ME1257 - Ranges N, S1, H

3-pole

Frame size 10, type T10k1, T10k2

Rear view - Dimensions in mm

Safety clearance see dimensions drawings of breaker



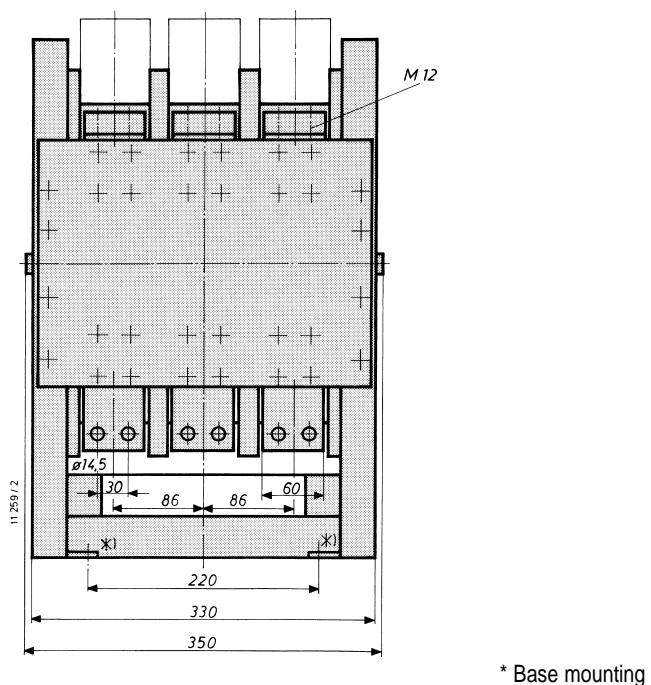
Type ME1607 to ME2007 - Ranges N, S1, H

3-pole

Frame size 20, type T20k1, T20k2

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



ME07 - Overall dimensions

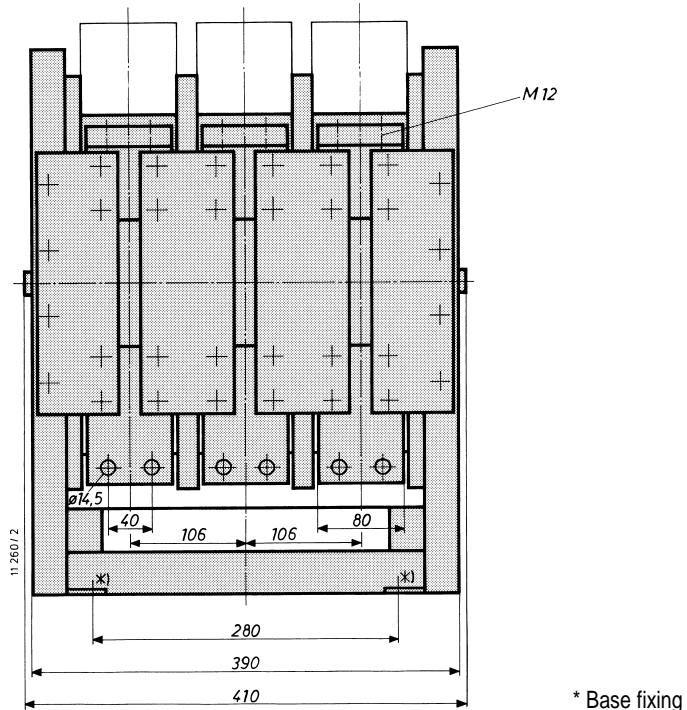
Type ME2507 - Ranges N, S1, H

3-pole

Frame size 30, type T30k

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



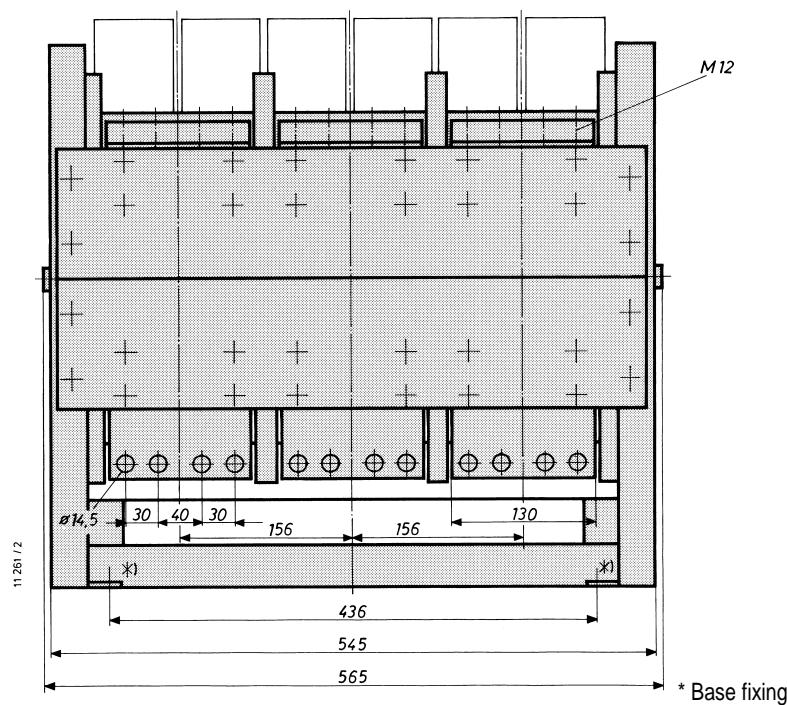
Type ME3207 - Ranges N, S1, H

3-pole

Frame size 40, type T40k

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



ME07 - Overall dimensions

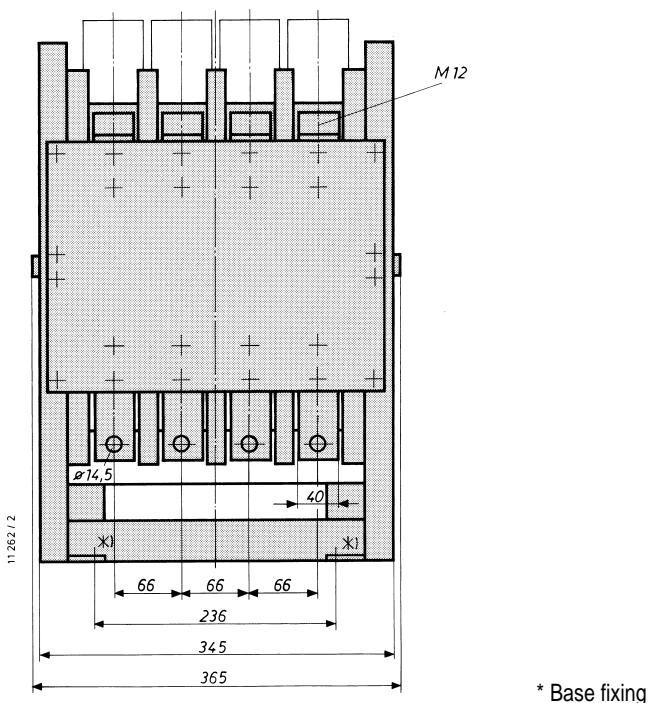
Type ME637 to ME1257 - Ranges N, S1, H/IV

4-pole

Frame size 10/IV, type T10k1/IV, T10k2/IV

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



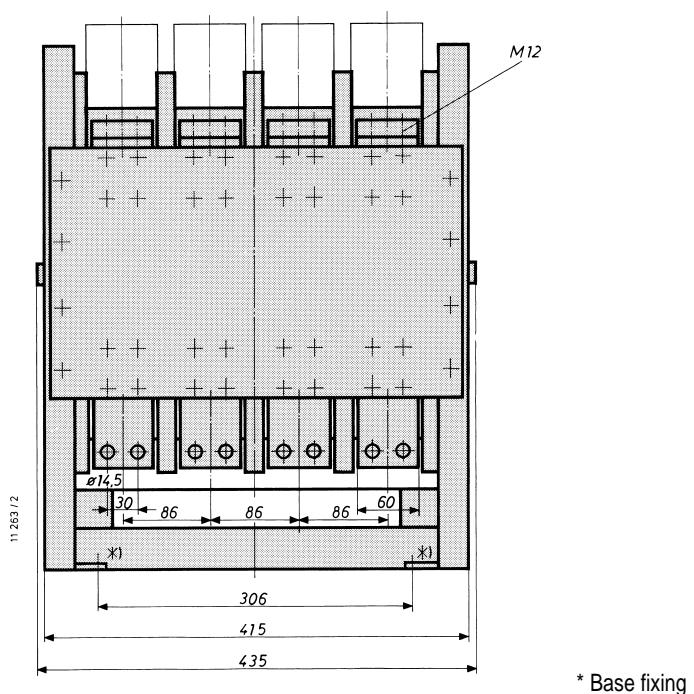
Type ME1607 to ME2007 - Ranges N, S1, H/IV

4-pole

Frame size 20/IV, type T20k1/IV, T20k2/IV

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



ME07 - Overall dimensions

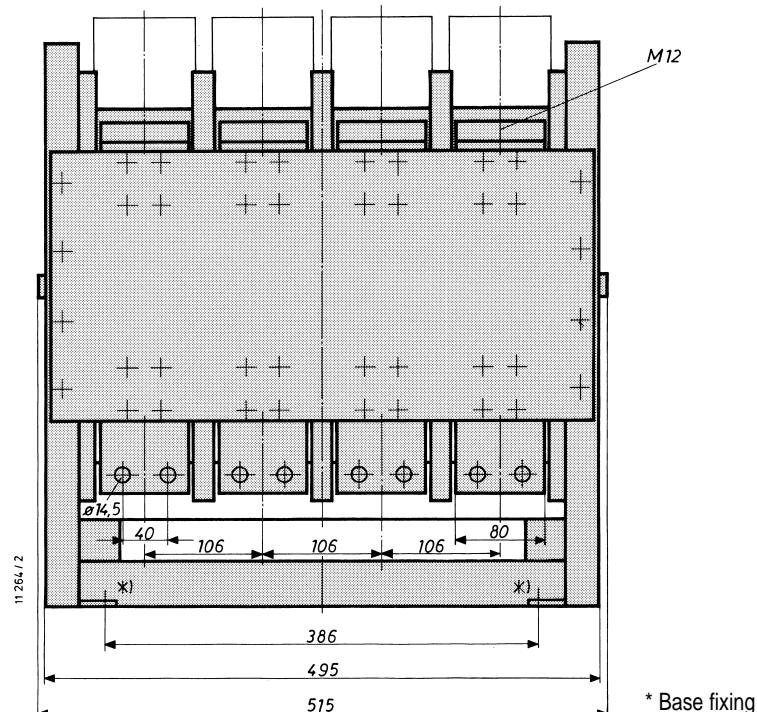
Type ME2507 - Ranges N, S1, H/IV

4-pole

Frame size 30/IV, type T30k/IV

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



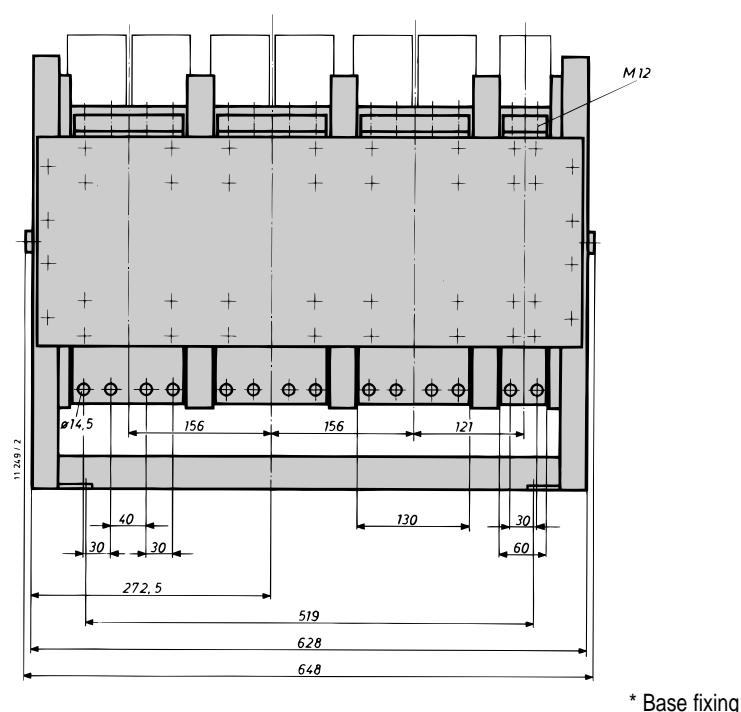
Type ME3207 - Ranges S1, H/IV

4-pole

Frame size 40/IV, type T40k/IV

Rear view - Dimensions in mm

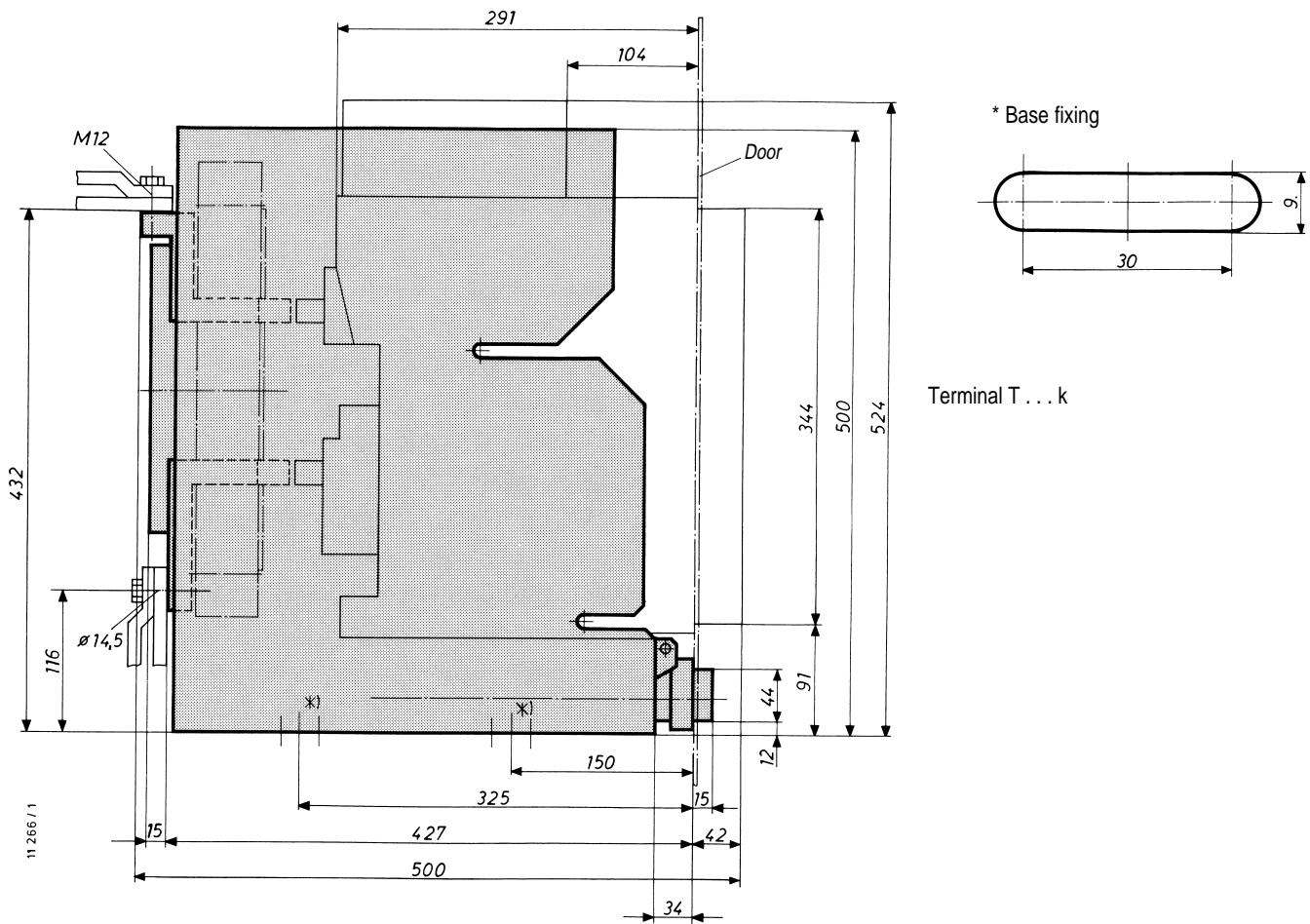
Safety clearance see dimensional drawings of breaker



ME07 - Overall dimensions

Type ME637 to ME3207 - Ranges N, S1, H

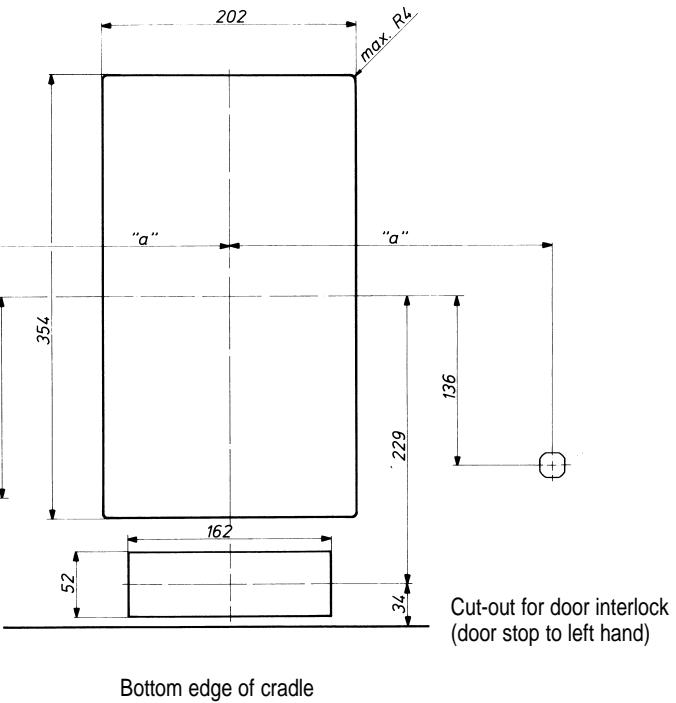
Side view - Dimensions in mm



ME07 - Overall dimensions

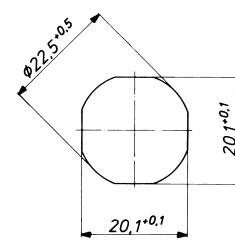
Door cut-outs

Frame size 10 ... 40 3-pole / Frame size 10 ... 30 4-pole - Dimensions in mm

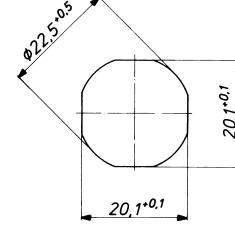
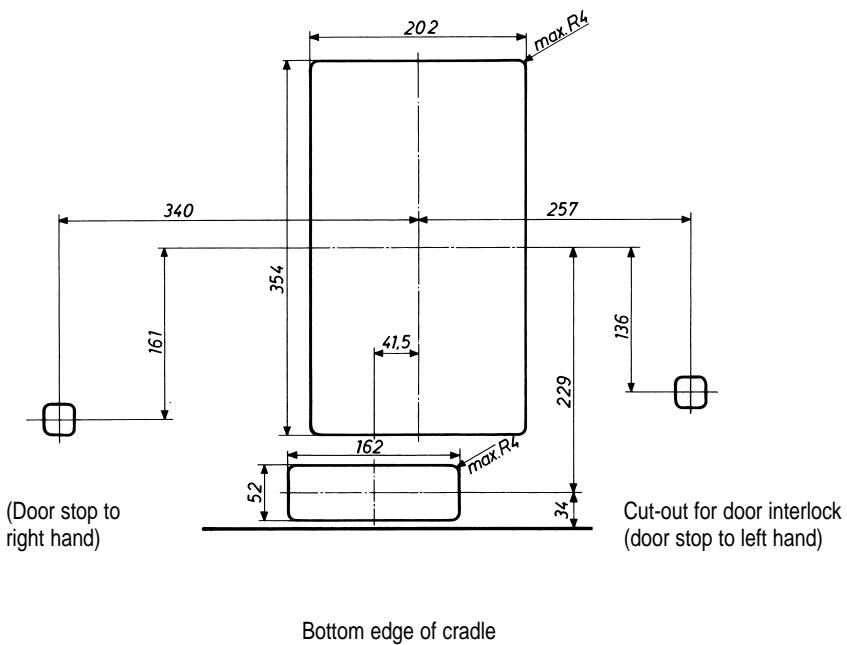


Frame size Withdrawable technique	10	20	30	40
Dimension "a"	124 (157)	149 (193)	179 (232)	257

4-pole withdrawable technique between brackets



Frame size 40 4-pole - Dimensions in mm



ME07 - Overall dimensions

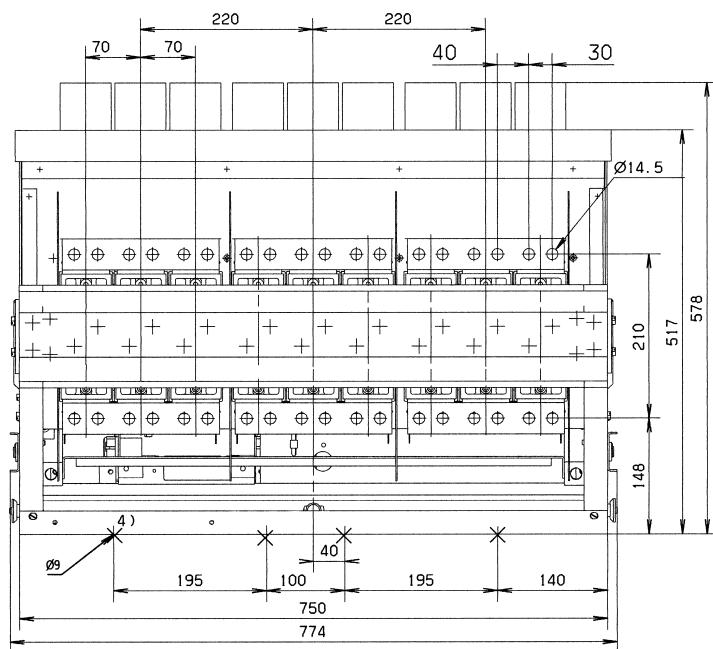
Type ME4007 S

3-pole

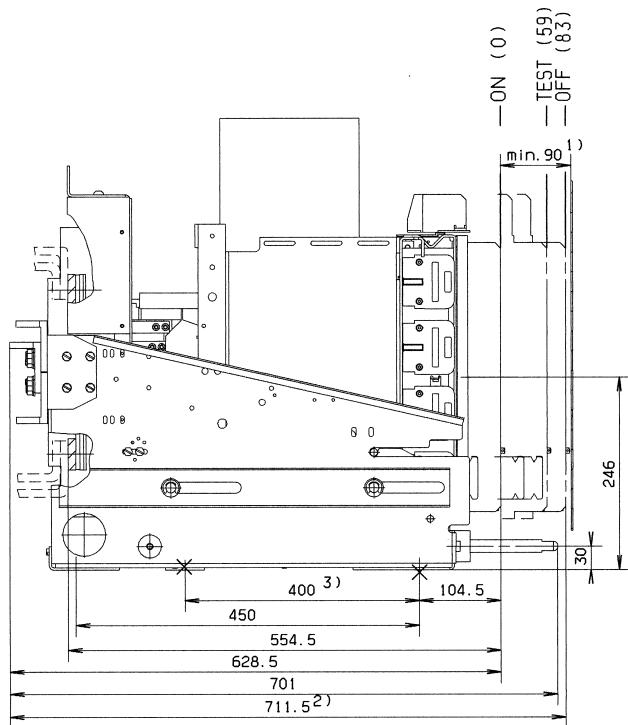
Frame size 50, type T50

Rear view - Dimensions in mm

Safety clearance see dimensions drawings of breaker



1. With closed door draw-out feature door sealing frame required
2. In position OFF
3. Version with vertical terminals



ME07 - Overall dimensions

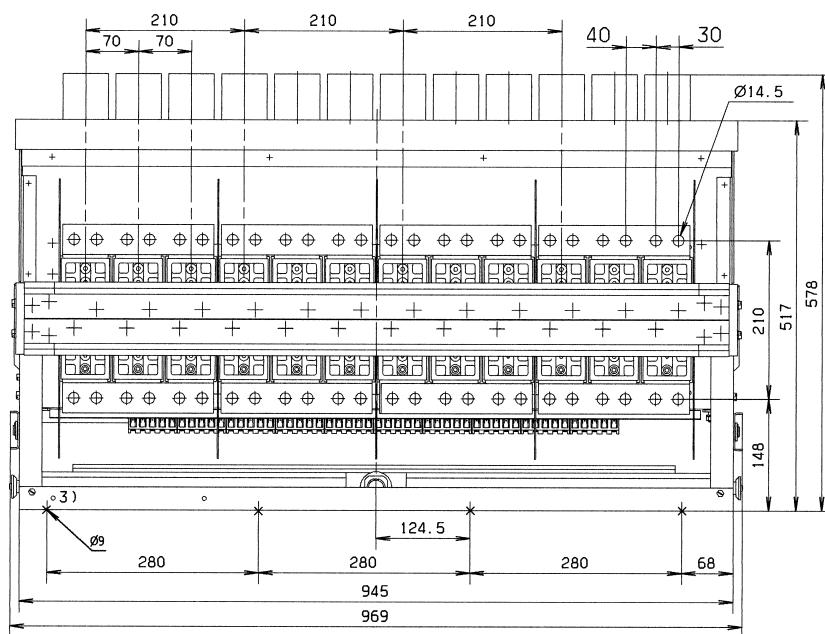
Type ME4007 S/IV

4-pole

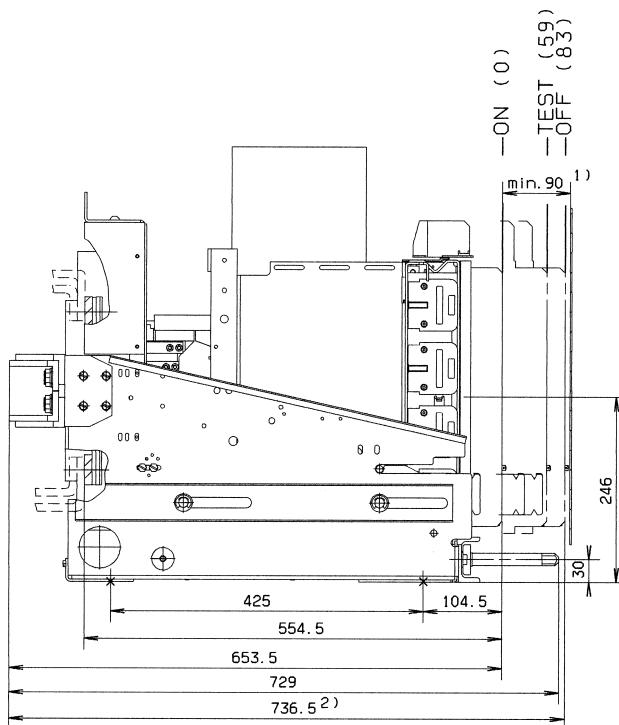
Frame size 50, type T50/IV

Rear view - Dimensions in mm

Safety clearance see dimensions drawings of breaker



1. With closed door draw-out feature door sealing frame required
2. In position OFF



ME07 - Overall dimensions

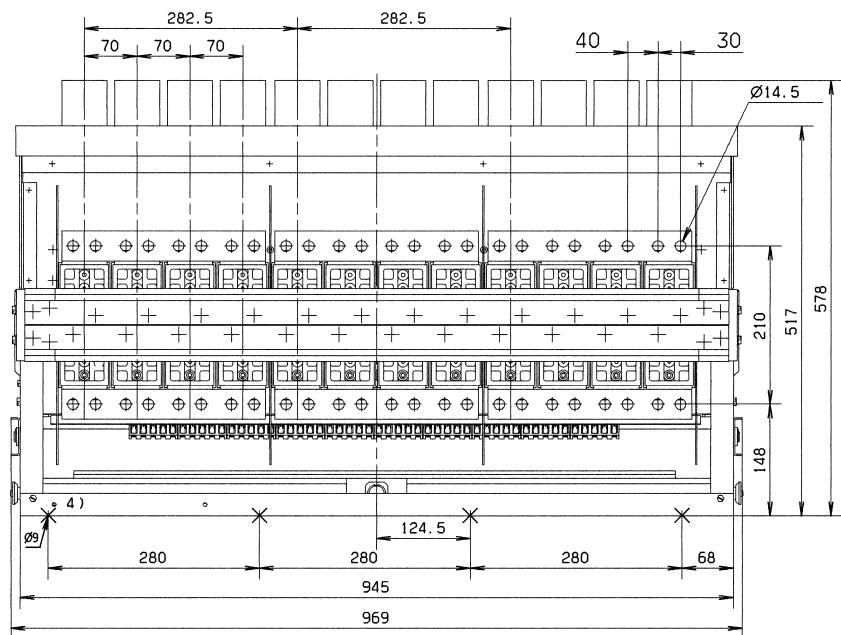
Type ME5007 S

3-pole

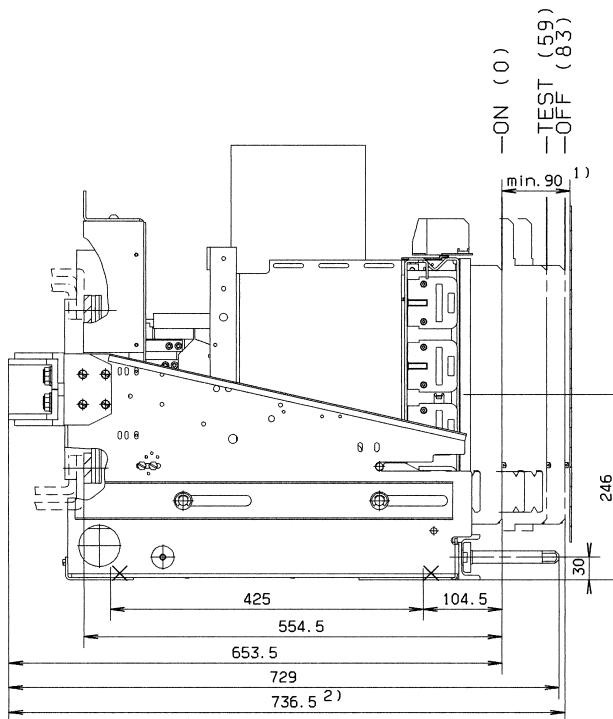
Frame size 60, type T60

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



1. With closed door draw-out feature door sealing frame required
2. In position OFF



ME07 - Overall dimensions

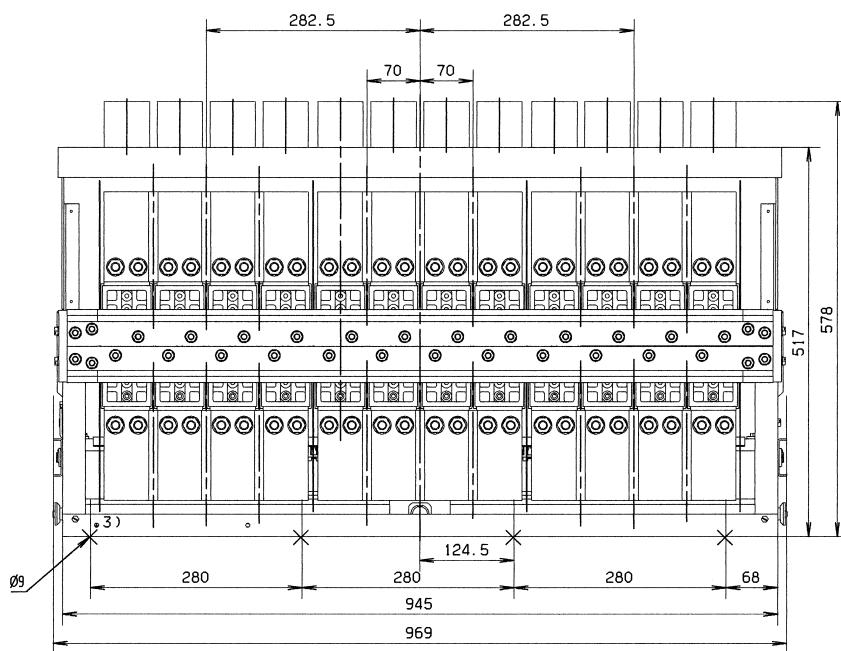
Type ME6307 S

3-pole

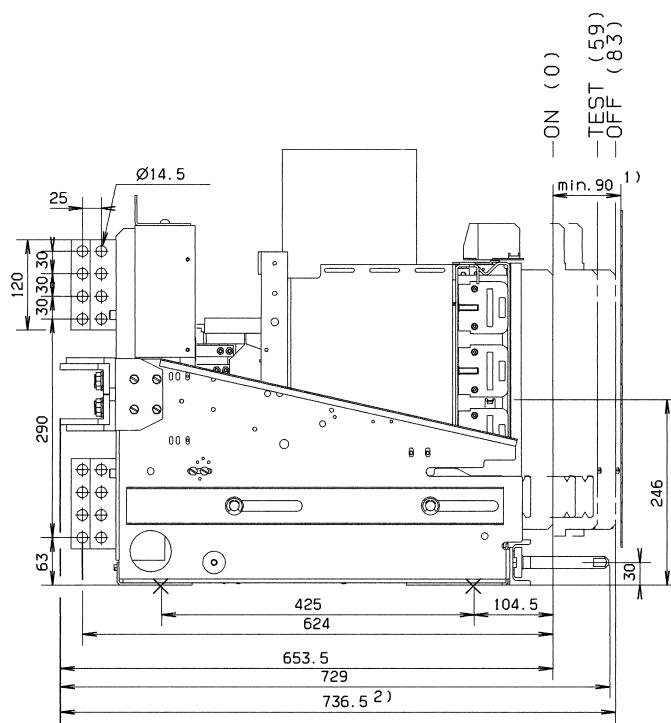
Frame size 70, type T70

Rear view - Dimensions in mm

Safety clearance see dimensional drawings of breaker



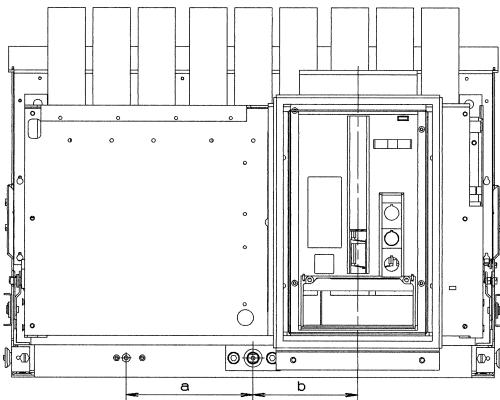
1. With closed door draw-out feature door sealing frame required
2. In position OFF



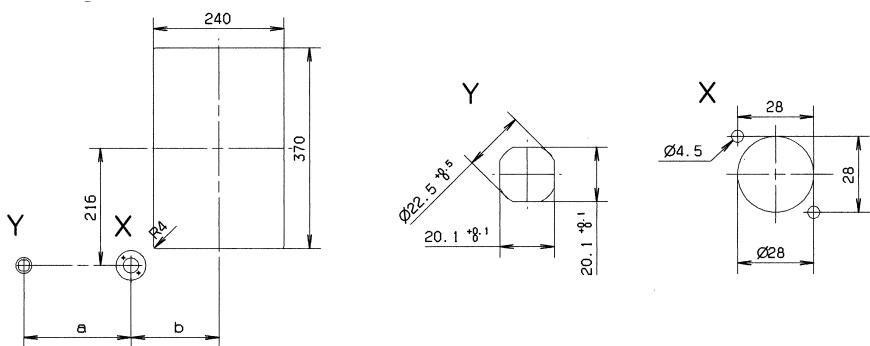
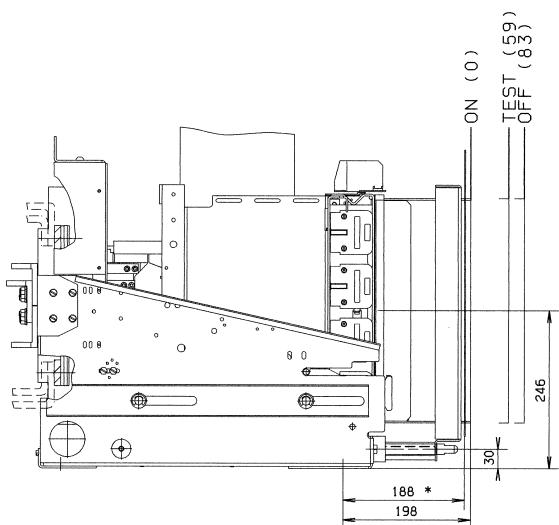
ME07 - Overall dimensions

Type ME4007 to ME6307

Door cut-outs
Frame size 50 to 70



Frame size 70	50	50/4	60/
Withdrawable technique			
Dimension "a"	197	297	297
Dimension "b" * Inside door	163	258	258

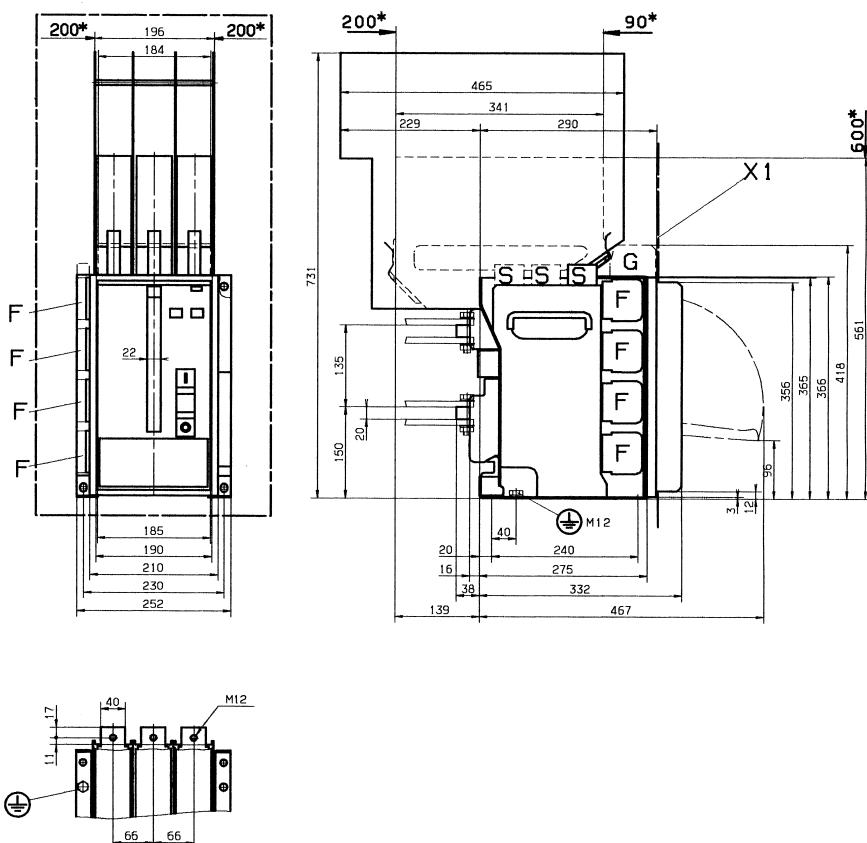


ME07 - Overall dimensions

Type ME637 to ME1257H

1000V AC

3-pole, frame size 10



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

*) Safety clearances

Minimum clearances of arc chutes to insulated or grounded parts.

Clearances to front and back are valid only for insulated parts.

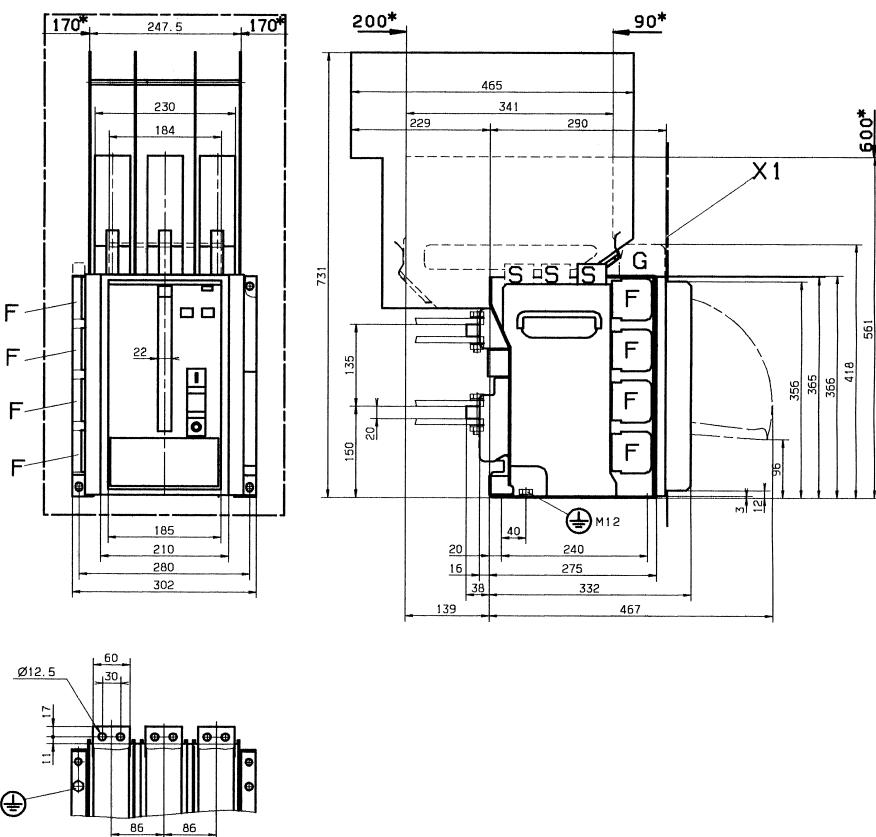
Only fixed version with base mounting.

ME07 - Overall dimensions

Type ME1607 to ME2007H

1000V AC

3-pole, frame size 20



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

*) Safety clearances

Minimum clearances of arc chutes to insulated or grounded parts.

Clearances to front and back are valid only for insulated parts.

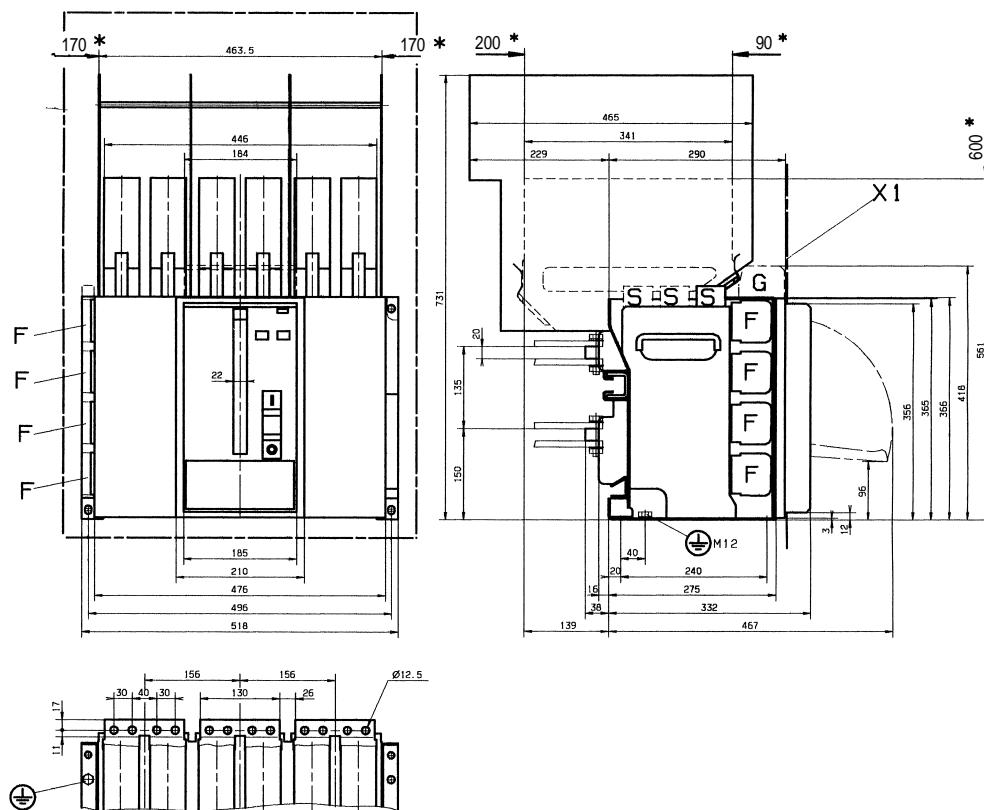
Only fixed version with base mounting.

ME07 - Overall dimensions

Type ME3207H

1000V AC

3-pole, frame size 40



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

*) Safety clearances

Minimum clearances of arc chutes to insulated or grounded parts.

Clearances to front and back are valid only for insulated parts.

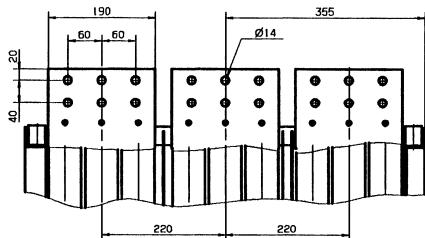
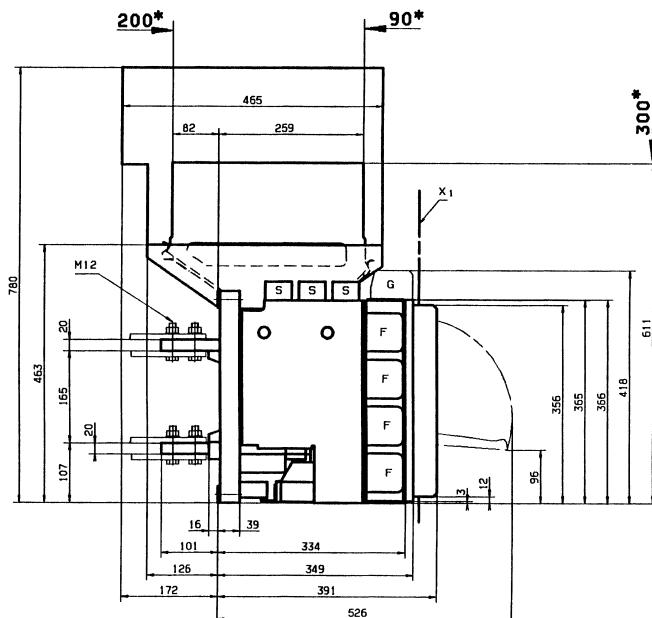
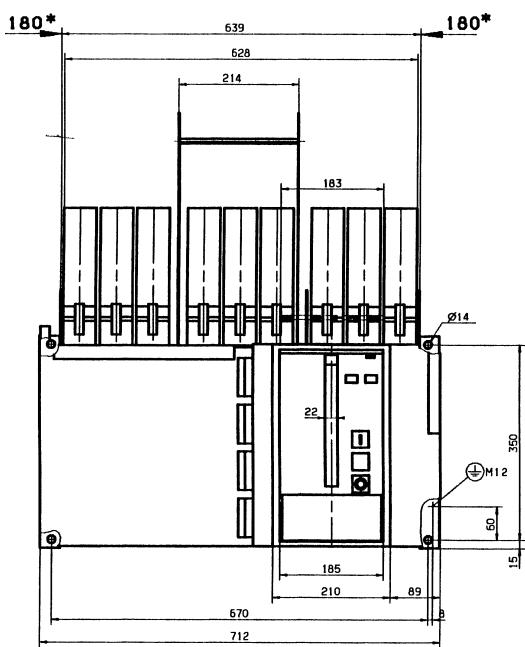
Only fixed version with base mounting.

ME07 - Overall dimensions

Type ME4007S

1000V AC

3-pole, frame size 50



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

*) Safety clearances

Minimum clearances of arc chutes to insulated or grounded parts.

Clearances to front and back are valid only for insulated parts.

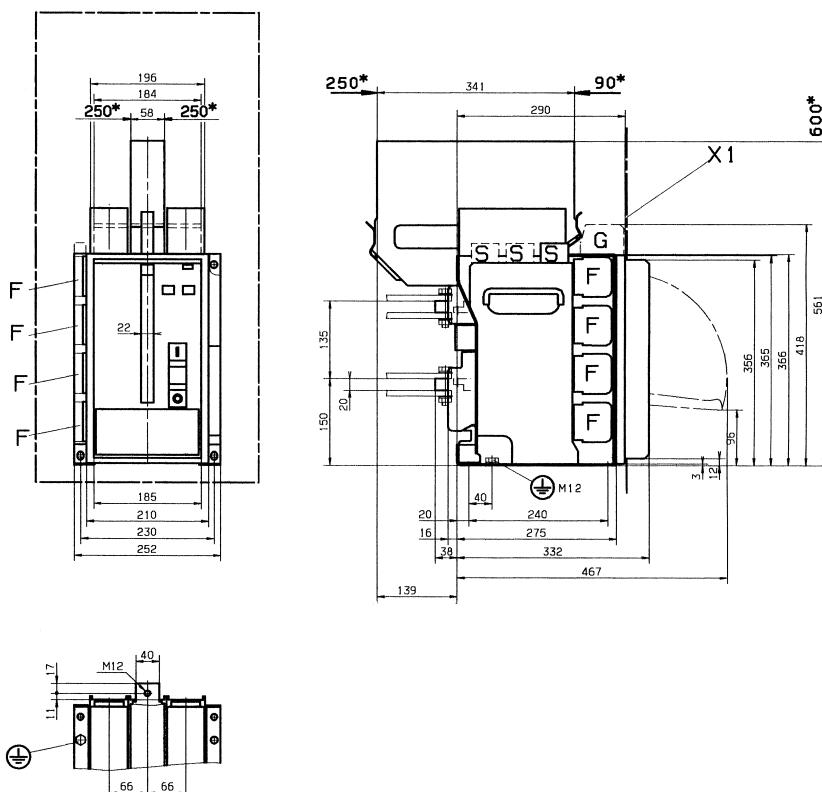
Only fixed version with rear mounting.

ME07 - Overall dimensions

Type MEG1257

1200V DC

1-pole, frame size 10



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

*) Safety clearances

Minimum clearances of arc chutes to insulated or grounded parts.

Clearances to front and back are valid only for insulated parts.

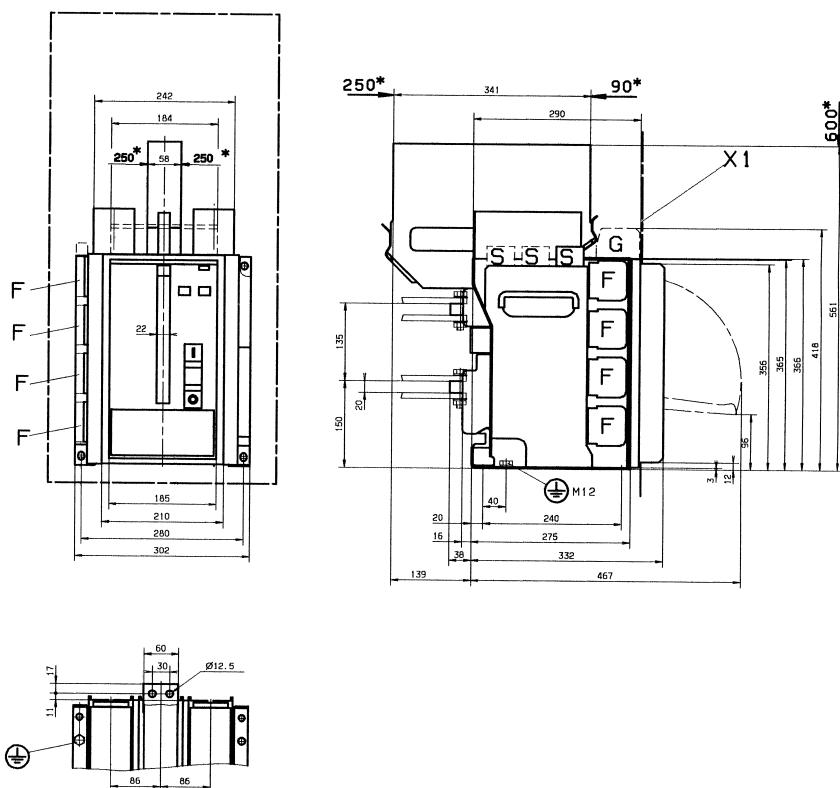
Only fixed version with base mounting.

ME07 - Overall dimensions

Type MEG2007

1200V DC

1-pole, frame size 20



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

*) Safety clearances

Minimum clearances of arc chutes to insulated or grounded parts.

Clearances to front and back are valid only for insulated parts.

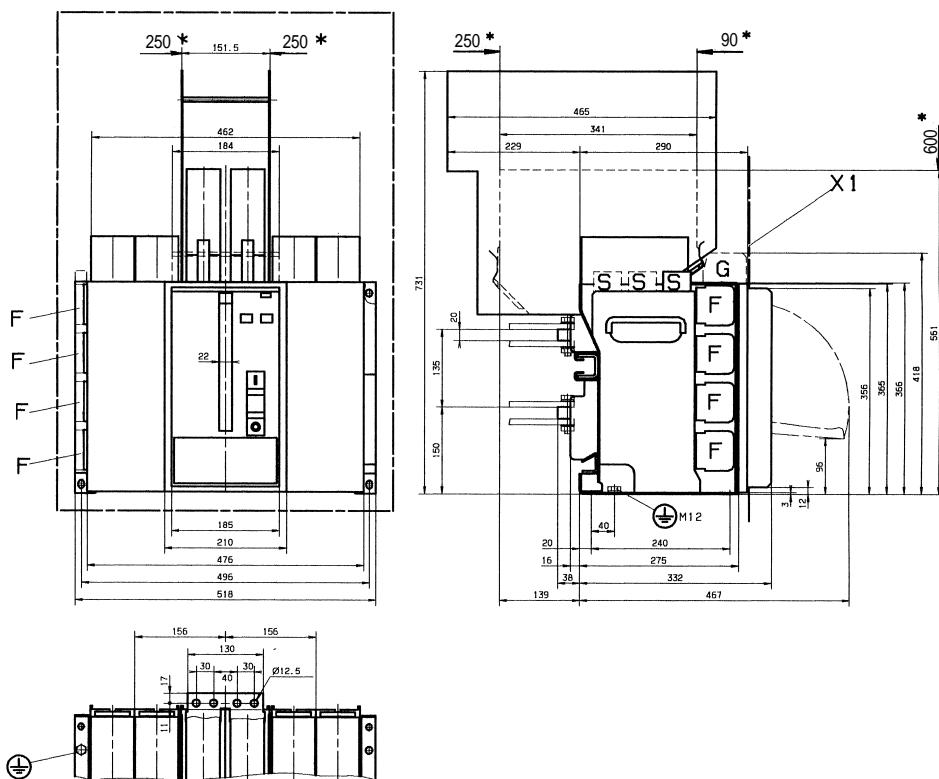
Only fixed version with base mounting.

ME07 - Overall dimensions

Type MEG3207

1200V DC

1-pole, frame size 40



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

*) Safety clearances

Minimum clearances of arc chutes to insulated or grounded parts.

Clearances to front and back are valid only for insulated parts.

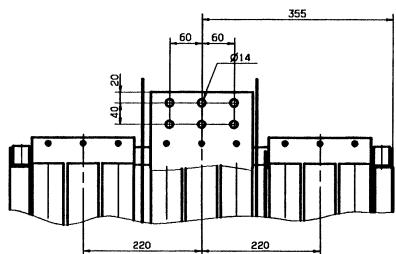
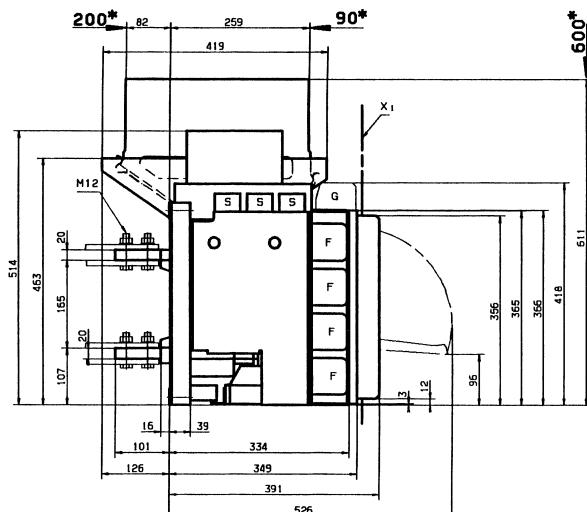
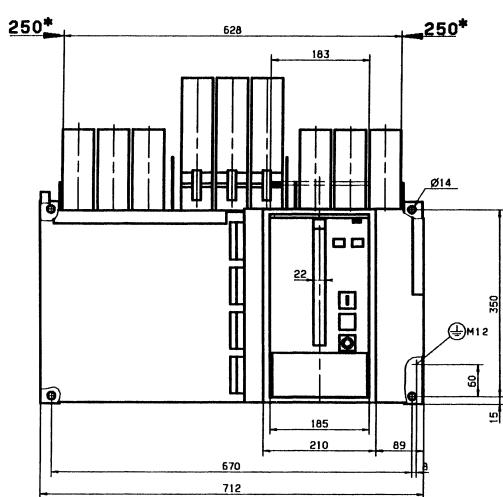
Only fixed version with base mounting.

ME07 - Overall dimensions

Type MEG4007

1200V DC

1-pole, frame size 50



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

*) Safety clearances

Minimum clearances of arc chutes to insulated or grounded parts.

Clearances to front and back are valid only for insulated parts.

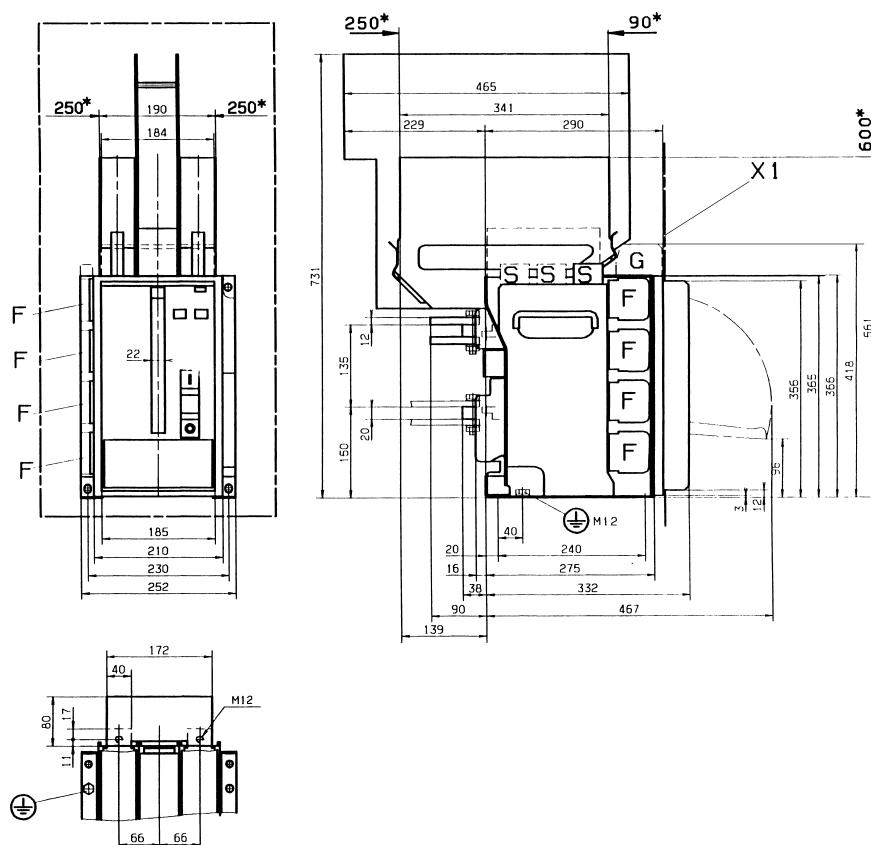
Only fixed version with rear mounting.

ME07 - Overall dimensions

Type MEG1257

1500V DC

1-pole, frame size 10



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

*) Safety clearances

Minimum clearances of arc chutes to insulated or grounded parts.

Clearances to front and back are valid only for insulated parts.

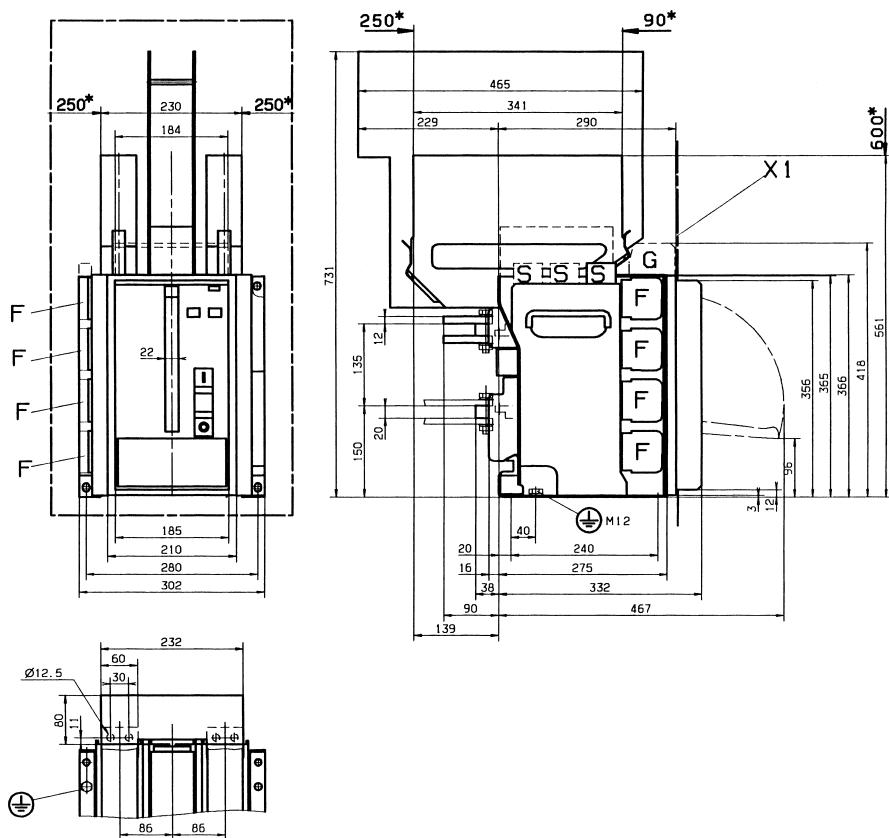
Only fixed version with base mounting.

ME07 - Overall dimensions

Type MEG2007

1500V DC

1-pole, frame size 20



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

*) Safety clearances

Minimum clearances of arc chutes to insulated or grounded parts.

Clearances to front and back are valid only for insulated parts.

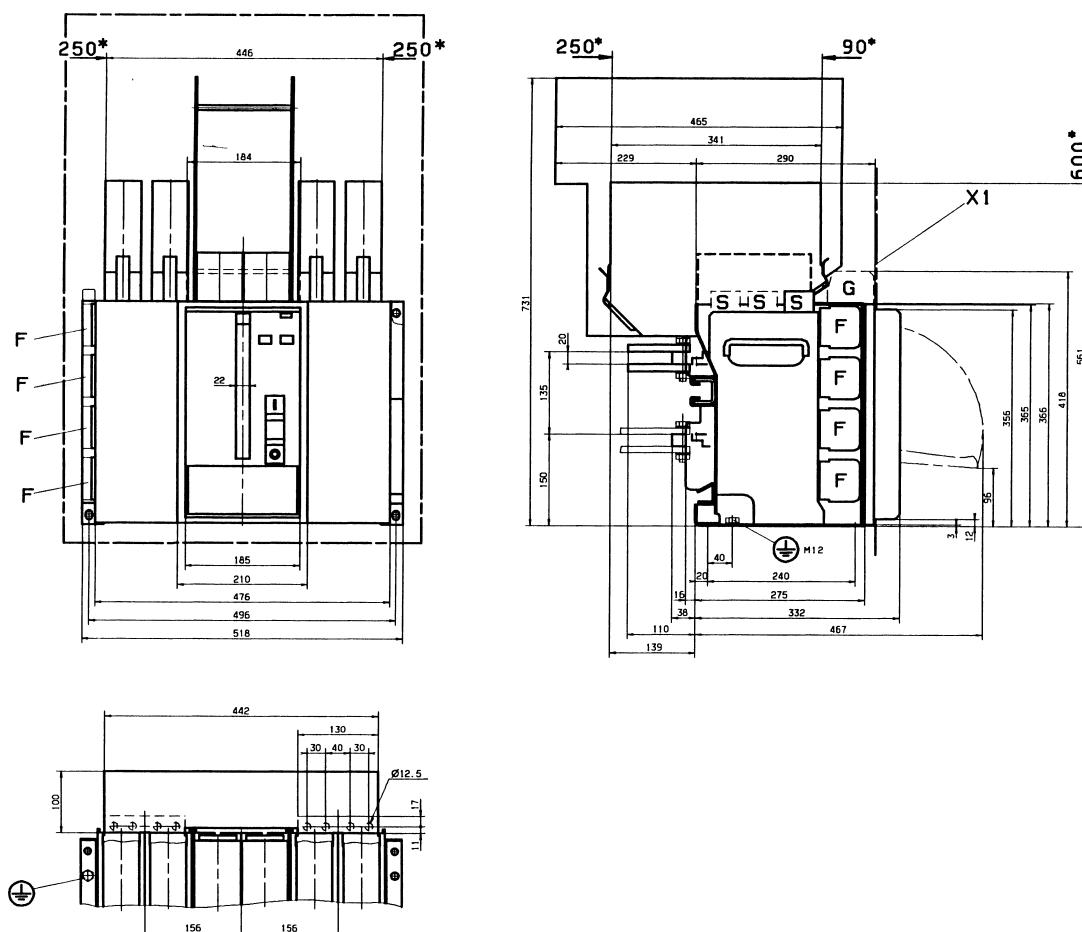
Only fixed version with base mounting.

ME07 - Overall dimensions

Type MEG3207

1500V DC

1-pole, frame size 40



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

*) Safety clearances

Minimum clearances of arc chutes to insulated or grounded parts.

Clearances to front and back are valid only for insulated parts.

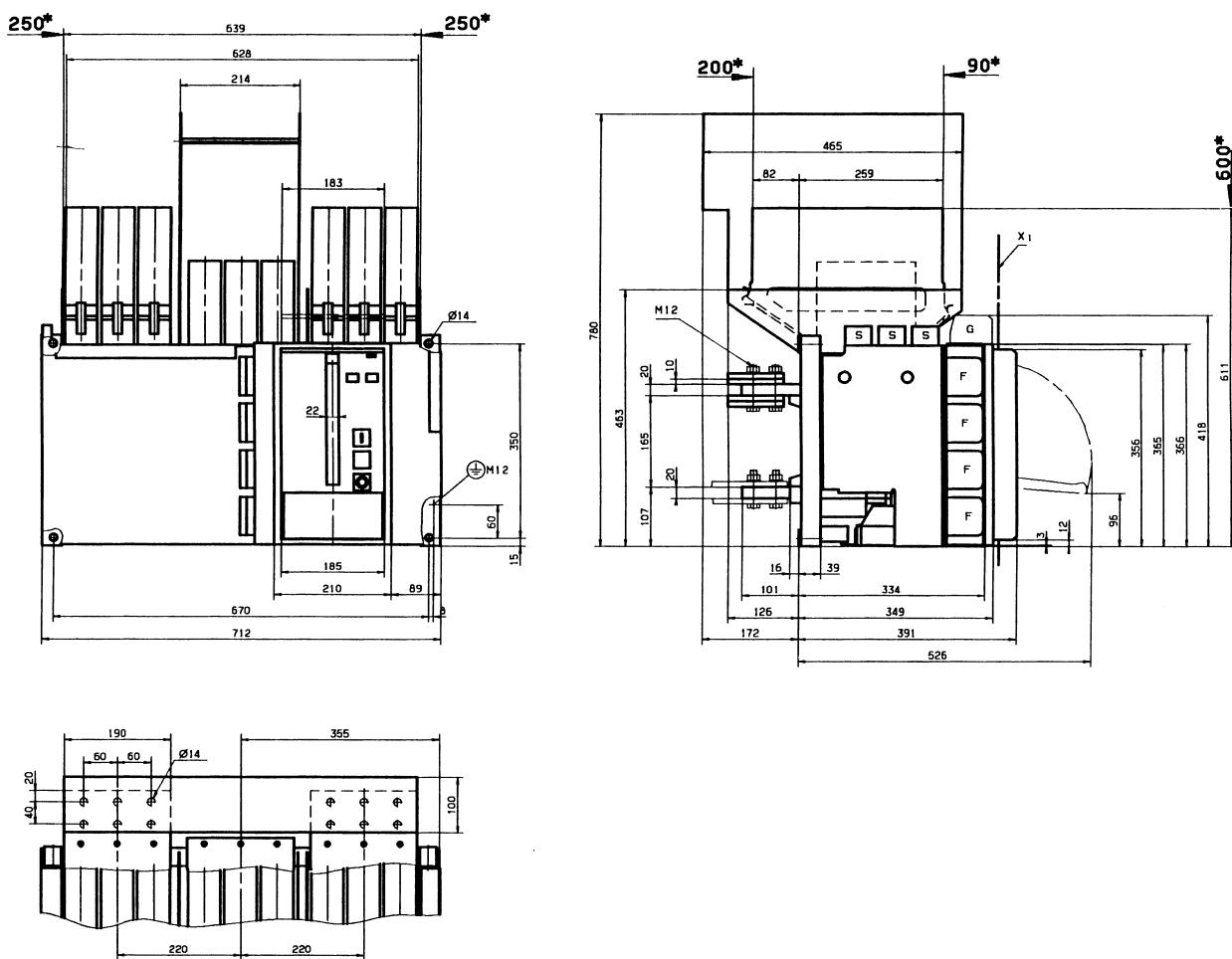
Only fixed version with base mounting.

ME07 - Overall dimensions

Type MEG4007

1500V DC

1-pole, frame size 50



F = Auxiliary switch

G = Automatic control unit (SU)

X1 = Switch cabinet door; if not available, a cover which protects the operator must be provided

*) Safety clearances

Minimum clearances of arc chutes to insulated or grounded parts.

Clearances to front and back are valid only for insulated parts.

Only fixed version with rear mounting.

Type MEGT3207/10

750V DC⁽¹⁾

1-pole, frame size 10
3-pole in parallel

T = Separator
F = Auxiliary switch
S = Plug
G = SU control unit

Plus pole on top rear connector!

Safety clearances	Without separator 'T'	With separator 'T'
A against grounded parts	170	200
B against insulated parts	95	95
C against grounded parts	50	0
D against insulated parts	100	100

(1) Dimensions and safety clearances for MEG/MEGT 3207/10 for DC 1200V on request

Type MEGT 5007/20

750V DC⁽¹⁾

1-pole, frame size 20
3-pole in parallel

T = Separator

F = Auxiliary switch

S = Plug

G = SU control unit

Plus pole on top rear connector!

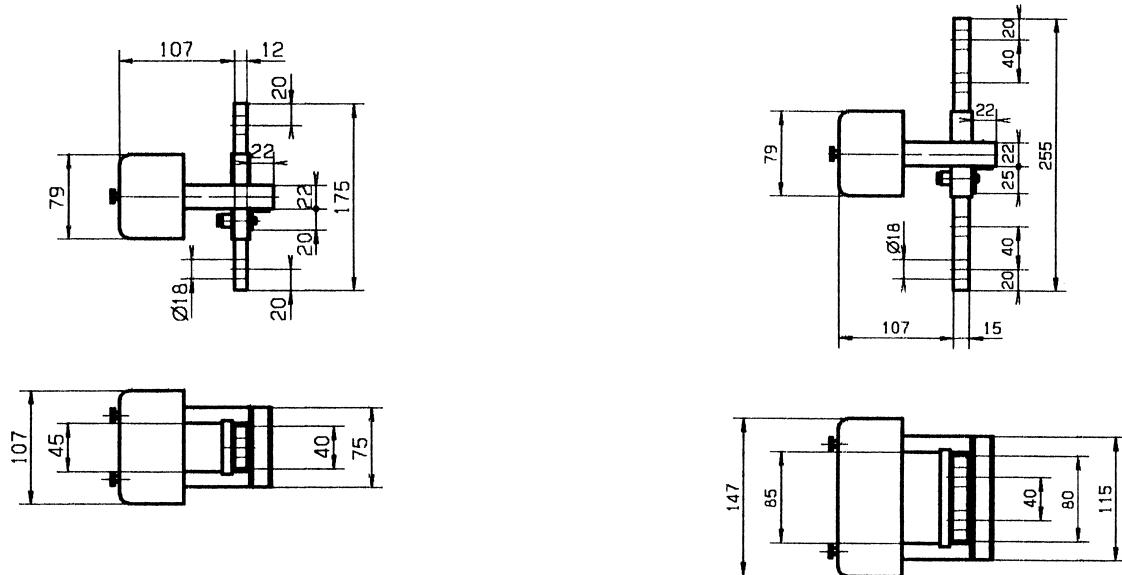
Safety clearances	Without separator 'T'	With separator 'T'
A against grounded parts	170	200
B against insulated parts	95	95
C against grounded parts	50	0
D against insulated parts	100	100

(1) Dimensions and safety clearances for MEG/MEGT 5007/20 for DC 1200V on request

ME07 - Overall dimensions

Type MEG07

External overcurrent release



For rated current 630-1250A

For rated current 1800-3600A