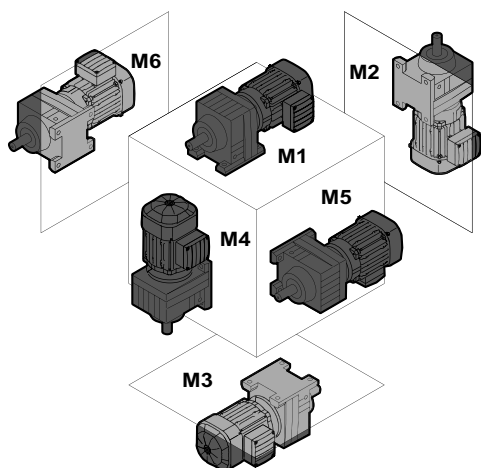




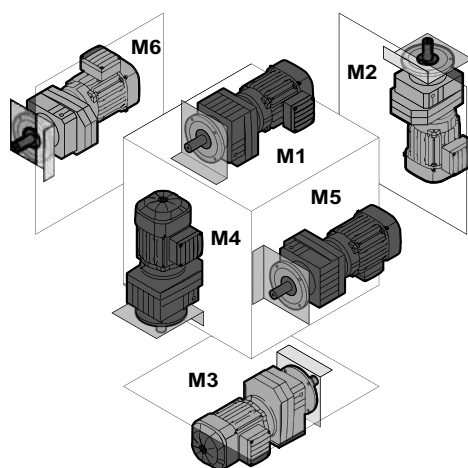
5 Gear unit mounting positions and order information

5.1 General mounting position information – R, F, K, S, W gear units

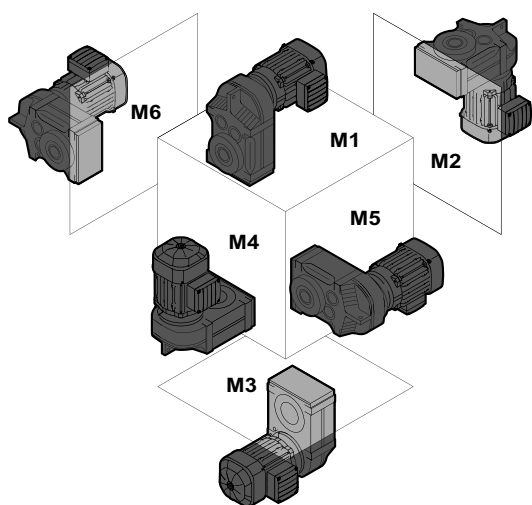
SEW-EURODRIVE distinguishes between the 6 gear unit mounting positions M1 – M6. The following illustration shows the mounting positions of the gear units:



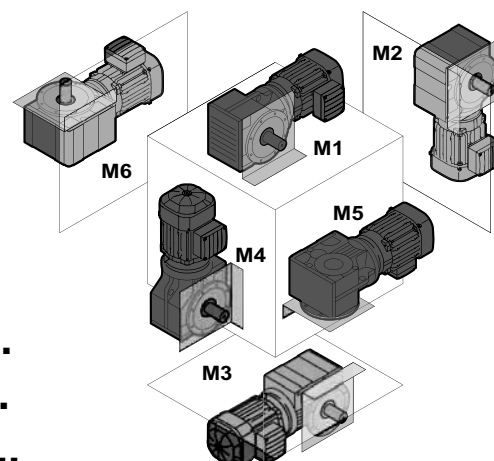
R..



F..



K..
S..
W..



27021597783032715



5.2 Order information



INFORMATION

The following order information is required for R, F, K and S gear units or gearmotors in addition to the mounting position to exactly determine the type of drive.

This information is also required for SPIROPLAN® gearmotors (W gearmotors) that do not depend on a particular mounting position.

5.2.1 The following applies to all gear units and gearmotors

Observe the following notes for all gear units and gearmotors from SEW-EURODRIVE.

Output direction of rotation with backstop

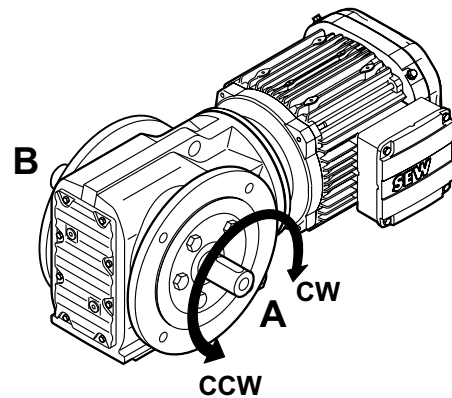
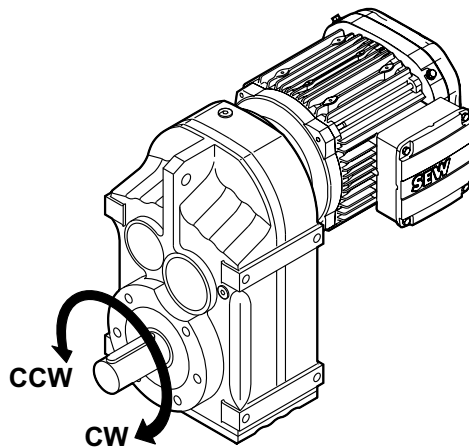
If the drive has an RS backstop, you have to indicate the direction of rotation of the output for the drive. The following definition applies:

As viewed onto the output shaft:

Clockwise (CW)

= Rotating clockwise

Counterclockwise (CCW) = Rotating counterclockwise



In right-angle gear units, you also have to indicate whether the direction of rotation is given looking onto the A or B end.



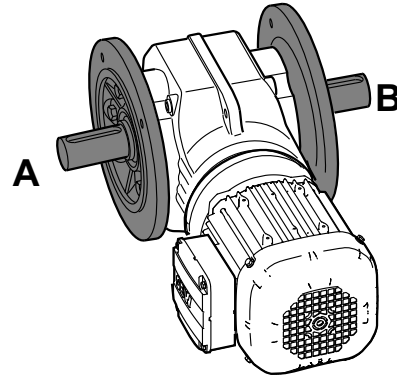
Gear unit mounting positions and order information

Order information

Position of the output shaft and the output flange

In right-angle gear units, you also have to indicate the position of the output shaft and the output flange:

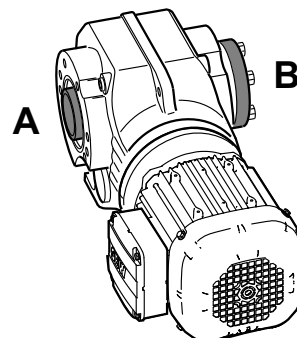
- A or B or AB



Position of the output end in right-angle gear units

In shaft mounted right-angle gear units with a shrink disk, you also have to indicate whether the A or B end is the output end. In the figure below, the A end is the output end. The shrink disk is located opposite the output end.

In shaft mounted right-angle gear units, the output end is equivalent to the shaft position of right-angle gear units with solid shaft.



INFORMATION

For the permitted mounting surfaces (= hatched area), refer to the mounting position sheets.

Example: Only the mounting surface at the bottom is possible with helical-bevel gear units K167/K187 in mounting positions M5 and M6.

5.2.2 Position of motor terminal box and cable entry

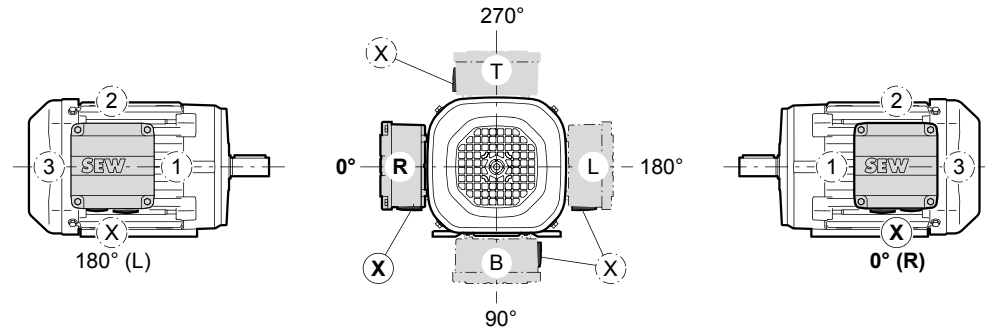
The position of the motor terminal box has so far been specified indicated with 0°, 90°, 180° or 270° as viewed onto the fan guard = B-end, see the following figure. A change in the product standard EN 60034 specifies that the following designations will have to be used for terminal box positions for foot-mounted motors in the future:

- As viewed onto the output shaft = A-end
- Designation as R (right), B (bottom), L (left) and T (top)



This new designation applies to foot-mounted motors without a gear unit in mounting position B3 (= M1). For gearmotors, the previous designation is retained. The following figure shows both designations. Where the mounting position of the motor changes, R, B, L and T are rotated accordingly. In motor mounting position B8 (= M3), T is at the bottom.

The position of the cable entry can be selected as well. "X" (= normal position), "1", "2" or "3" are possible, see following figure.



Unless indicated otherwise, you will receive the terminal box type 0° with "X" cable entry. For mounting position M3, we recommend that you select cable entry "2".



INFORMATION

Only cable entries and "2" are possible for DR63 motors. Exception: This limitation does not apply with IS plug connectors.



INFORMATION

When the **terminal box is in the 90° (B) position**, check to see if the gearmotor has to be supported.

Software support

Not all cable entry positions X, 1, 2, 3 and terminal box positions 0°(R), 90°(B), 180°(L), 270°(T) are possible in any case. Some additional features for the motor require a connection inside the terminal box, which means this terminal box is larger than the standard terminal box due to the normative air gaps and creepage distances. The dimension sheets only depict the standard terminal box.

Dimensions not listed in the dimension sheets can be determined with the DRIVECAD software, which is available from DriveGate® on the SEW-EURODRIVE website.

- For registered DriveGate® users: <https://portal.drivegate.biz/drivecad>
- For new users: www.sew-eurodrive.com → DriveGate® login



5.2.3 Sample orders

Type (examples)	Mounting position	Shaft position	Flange position	Terminal box position	Cable entry position	Direction of rotation of output
K47DRS71M4/RS	M2	A	-	0°	"X"	CW
SF77DRE100L4	M6	AB	AB	90°	"3"	-
KA97DRE132M4	M4	B	-	270°	"2"	-
KH107DRP160M4	M1	A	-	180°	"3"	-
KAF67A	M3	A	B	-	-	-

5.2.4 Changing the mounting position

It is important that you read the following information when you operate the gearmotor in a mounting position other than indicated in the order:

- Adjust the lubricant fill quantity so that it matches the new mounting position.
- Adjust the position of the breather valve
- For helical-bevel gearmotors: Contact SEW-EURODRIVE customer service prior to changing to mounting position M5 or M6 and when changing from M5 to M6, or vice versa.
- For helical-worm gearmotors: Contact SEW-EURODRIVE customer service when changing to mounting position M2 or M3.



5.3 Key to the mounting position sheets



INFORMATION

SPIROPLAN® gearmotors are not dependant on the mounting position, except for W..37 and W..47 in mounting position M4. However, mounting positions M1 to M6 are also shown for SPIROPLAN® gearmotors to assist you in working with this documentation.



INFORMATION

- SPIROPLAN® gearmotors W..20 to W..30 cannot be equipped with breather valves, oil level plugs or drain plugs.
- SPIROPLAN® gearmotors W..37 and W..47 can be equipped with breather valve, oil level plug or drain plug.

5.3.1 Symbols used

The following table shows the symbols used in the mounting position sheets and what they mean.

Symbol	Meaning
	Breather valve
	Oil level plug ¹⁾
	Oil drain plug

1) Does not apply to the 1st gear unit (large gear unit) of multi-stage drives.

5.3.2 Churning losses

* → (Page XX)

Some mounting positions may result in churning losses. Contact SEW-EURODRIVE in case of the following combinations:

Mounting position	Gear unit type	Gear unit size	Input speed [rpm]
M2, M4	R	97 ... 107	> 2500
		> 107	>1500
M2, M3, M4, M5, M6	F	97 ... 107	> 2500
		> 107	> 1500
	K	77 ... 107	> 2500
		> 107	> 1500
	S	77 ... 97	> 2500

5.3.3 Displayed shaft

Note the following information regarding display of shafts in the mounting position sheets:



INFORMATION

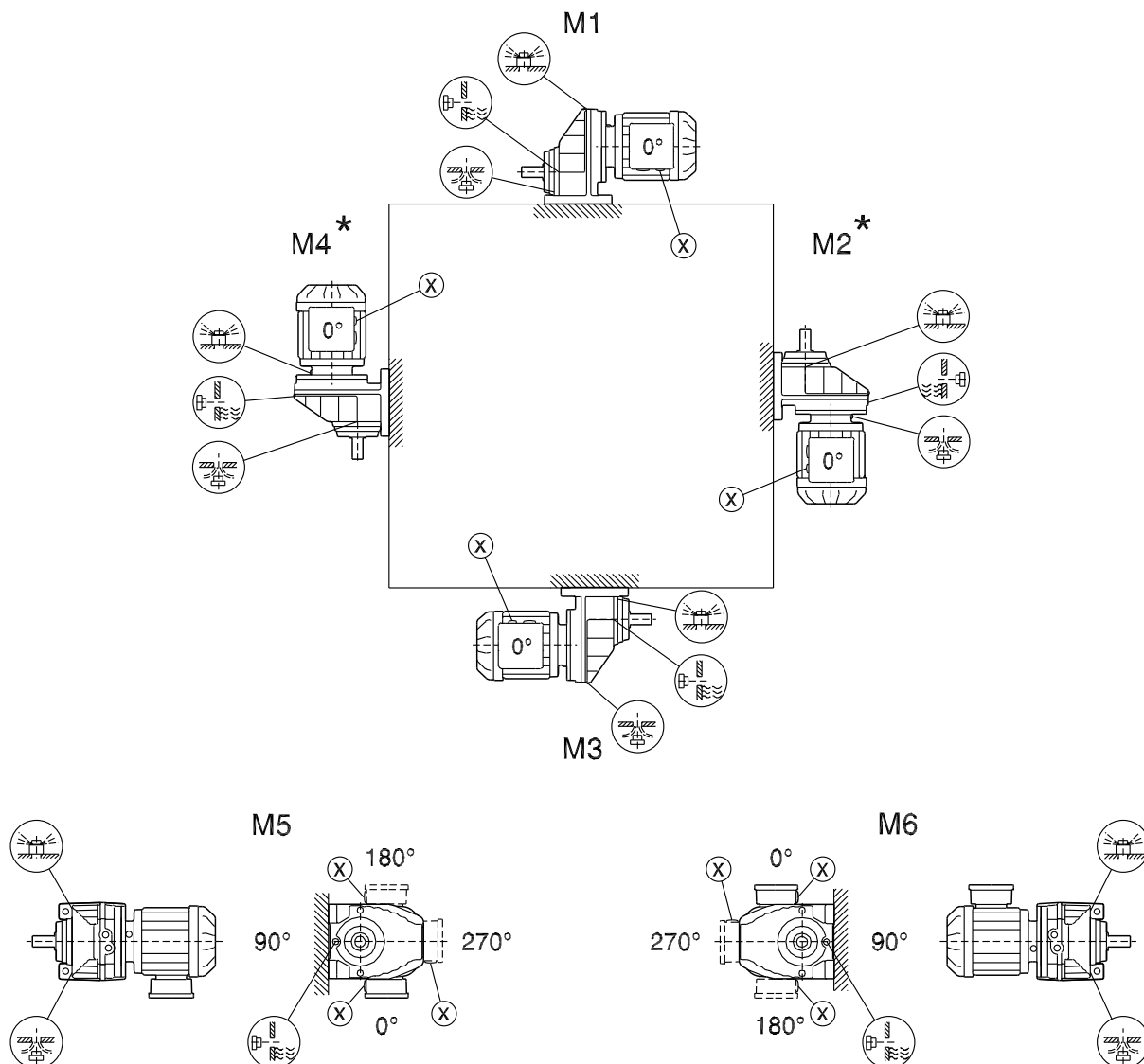
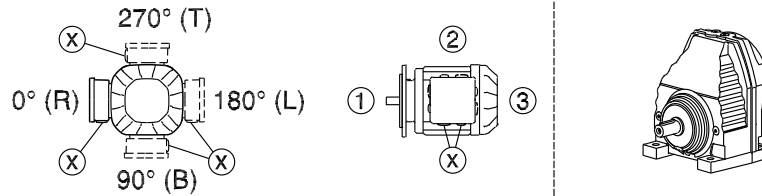
- **For gear units with solid shaft:** The displayed shaft is always on the A end.
- **For shaft-mounted gear units:** The shaft with dashed lines represents the customer shaft. The output end (= shaft position) is always shown on the A end.



5.4 Mounting positions of helical gearmotors

5.4.1 RX57-RX107

04 043 03 00

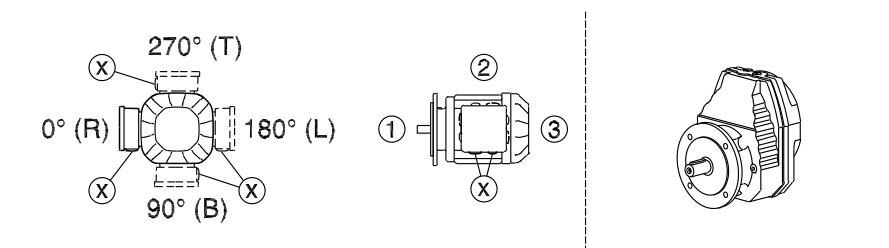


* → (page 59)

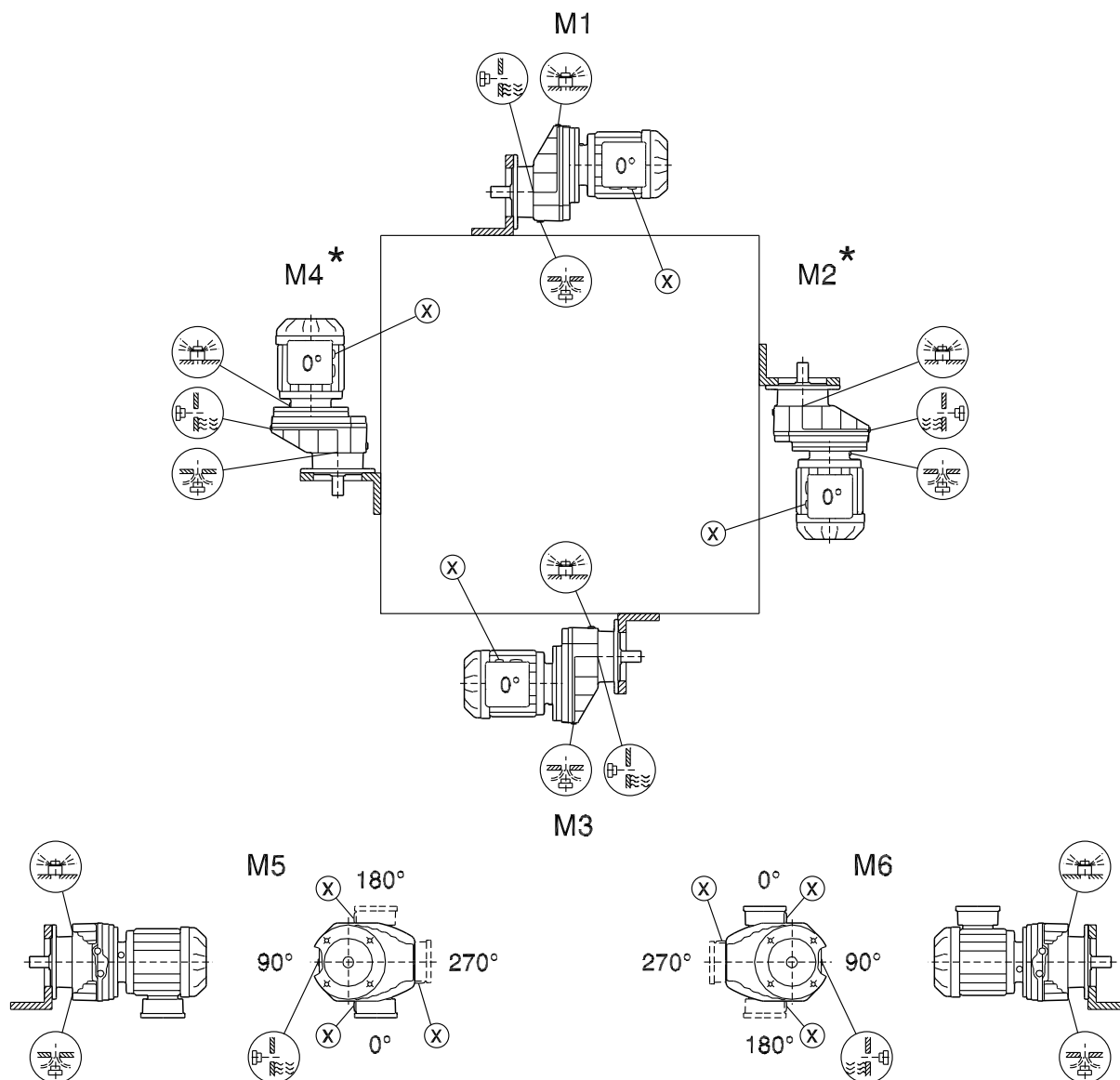


5.4.2 RXF57-RXF107

04 044 03 00



5



* → (page 59)

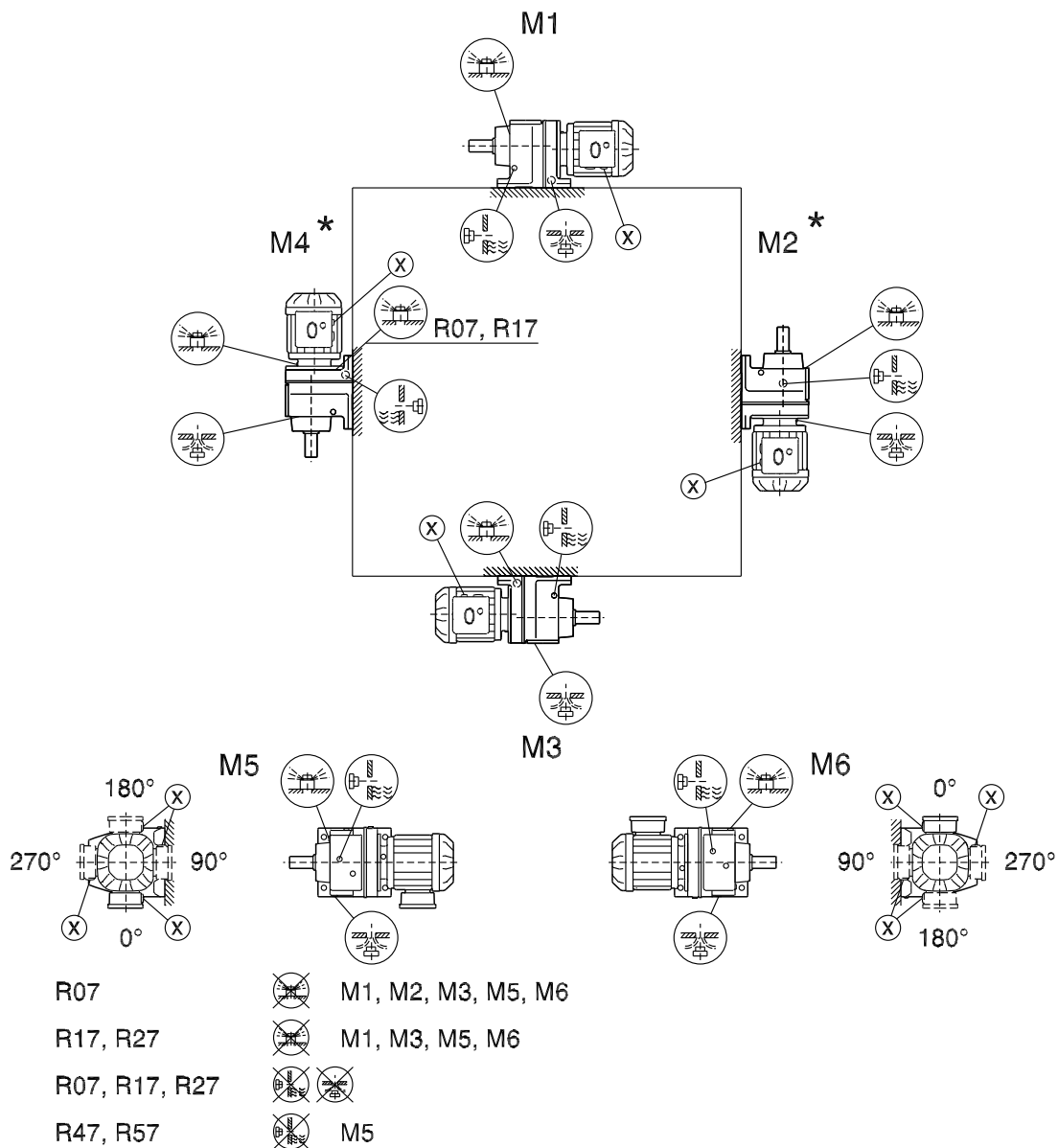
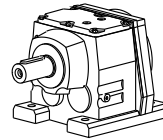
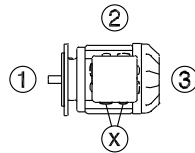
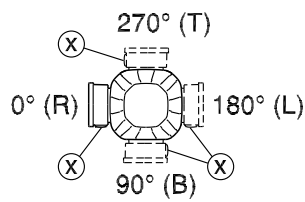


Gear unit mounting positions and order information

Mounting positions of helical gearmotors

5.4.3 R07-R167

04 040 04 00

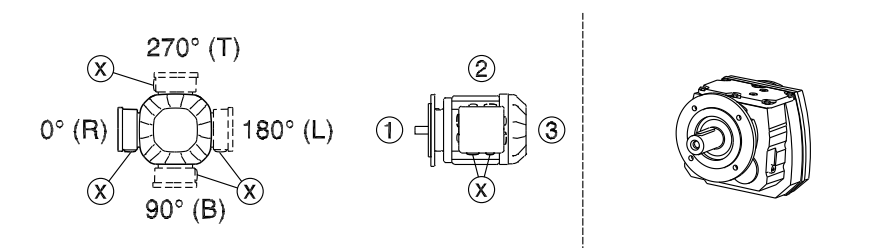


* → (page 59)

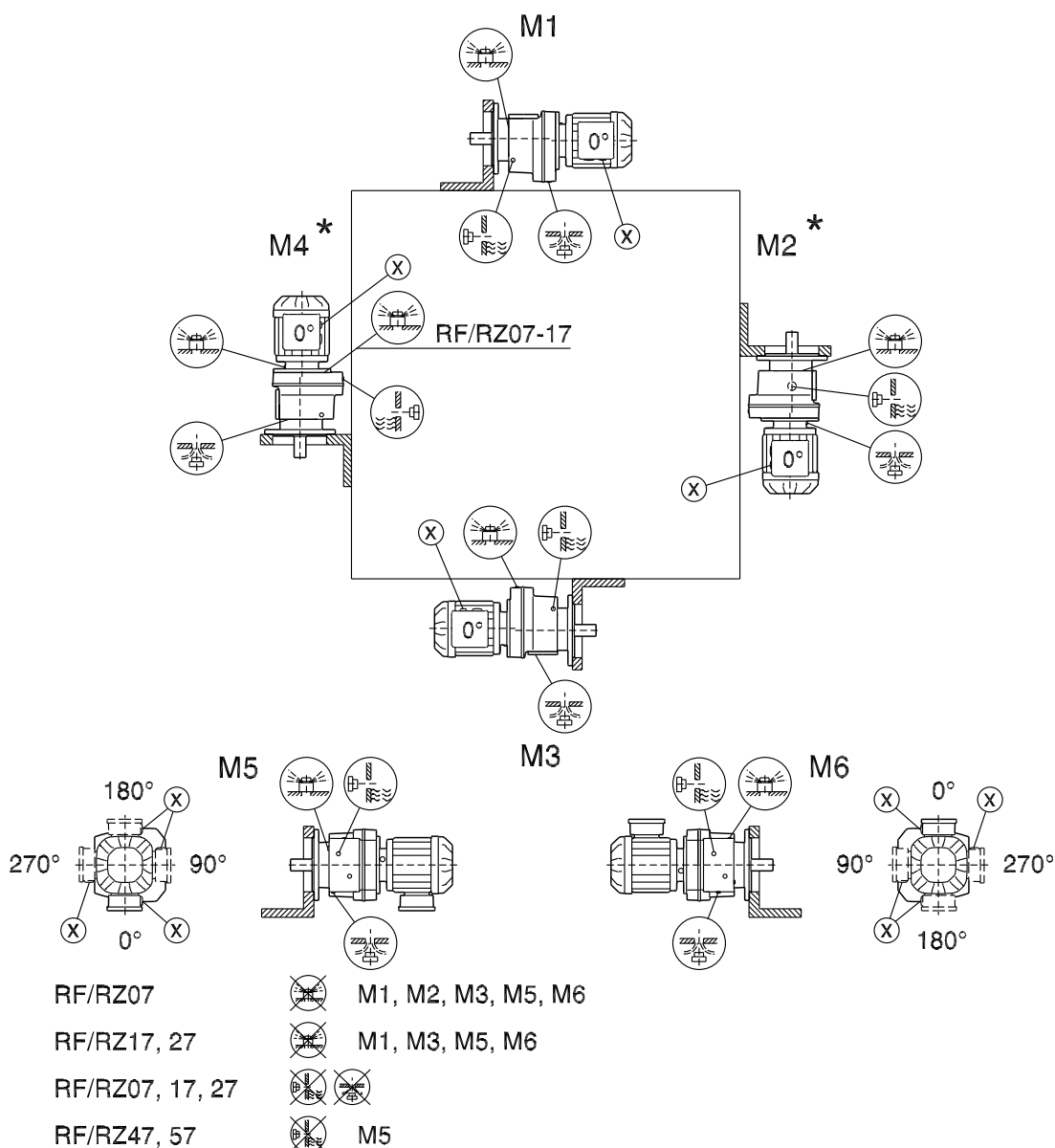


5.4.4 RF07-RF167, RZ07-RZ87

04 041 04 00

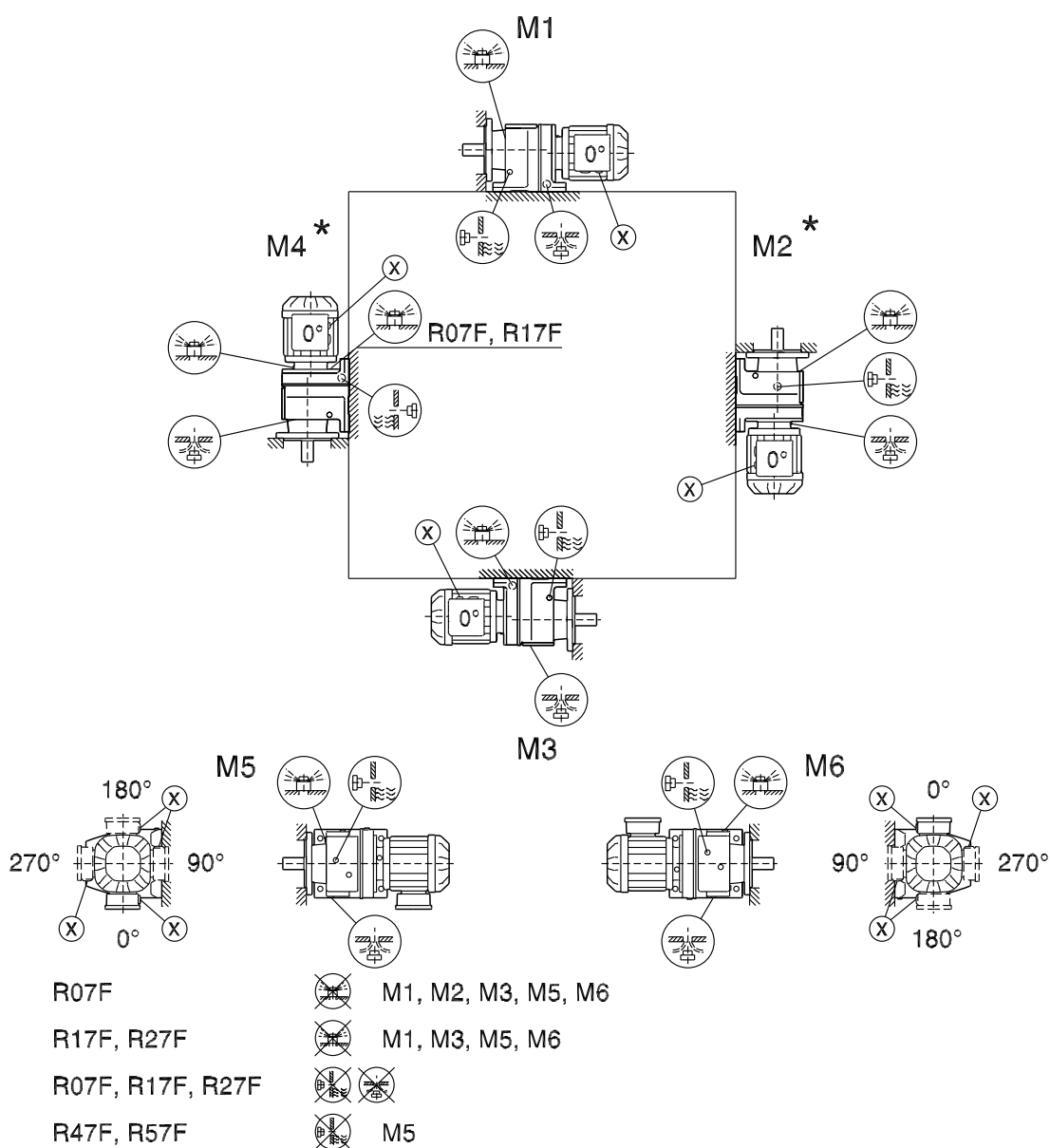
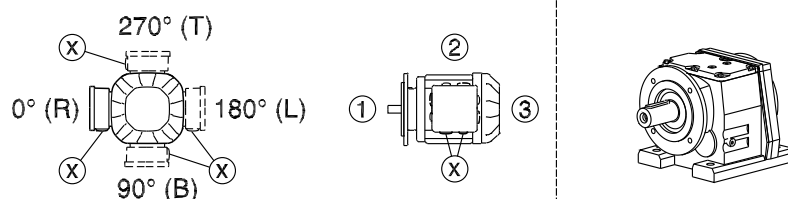


5



* → (page 59)

04 042 04 00



* → (page 59)

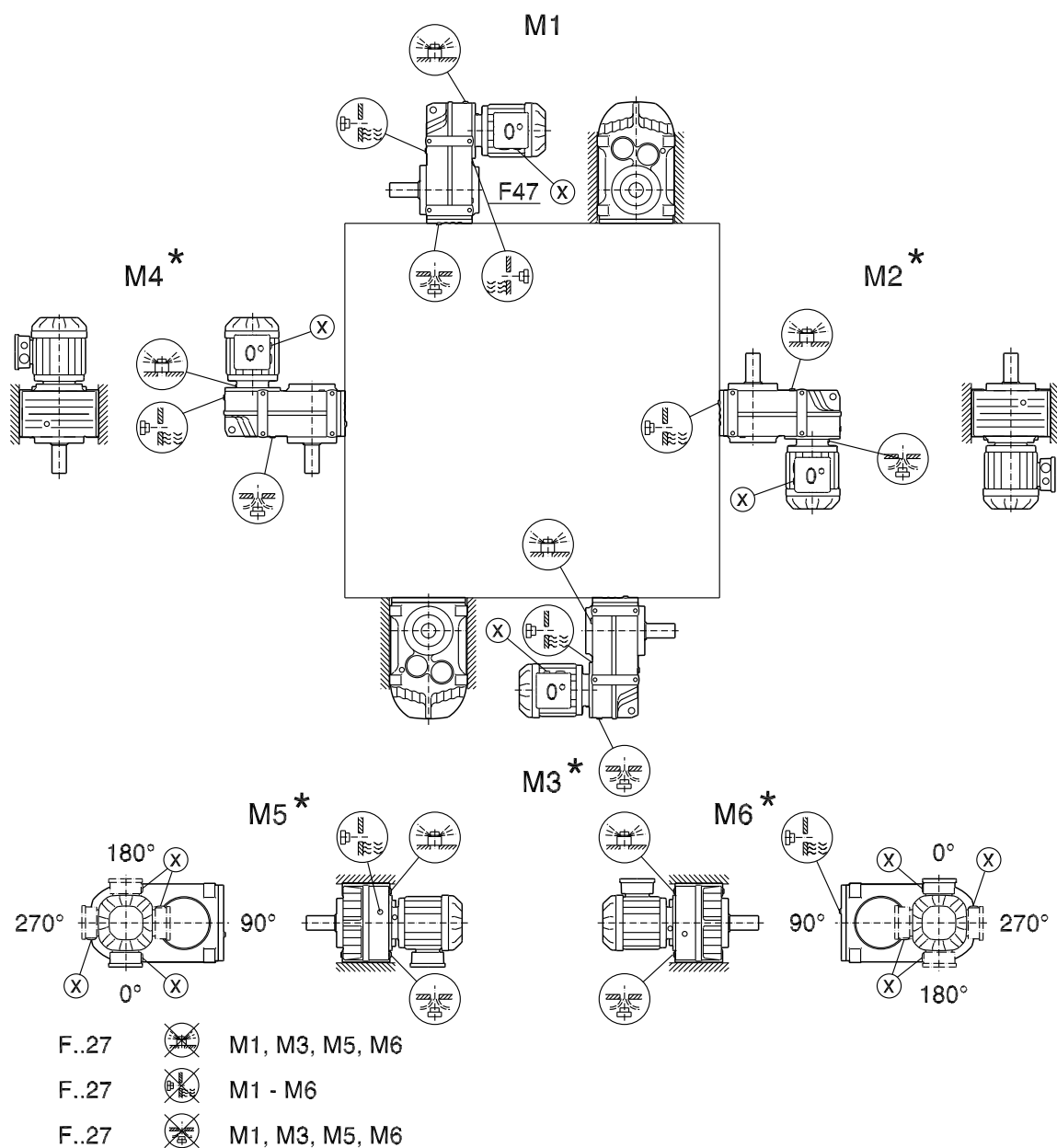
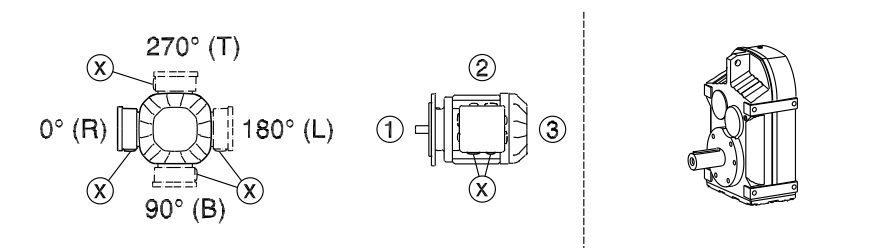
64



5.5 Mounting positions of parallel-shaft helical gearmotors

5.5.1 F/FA..B/FH27B-157B, FV27B-107B

42 042 04 00



* → (page 59)

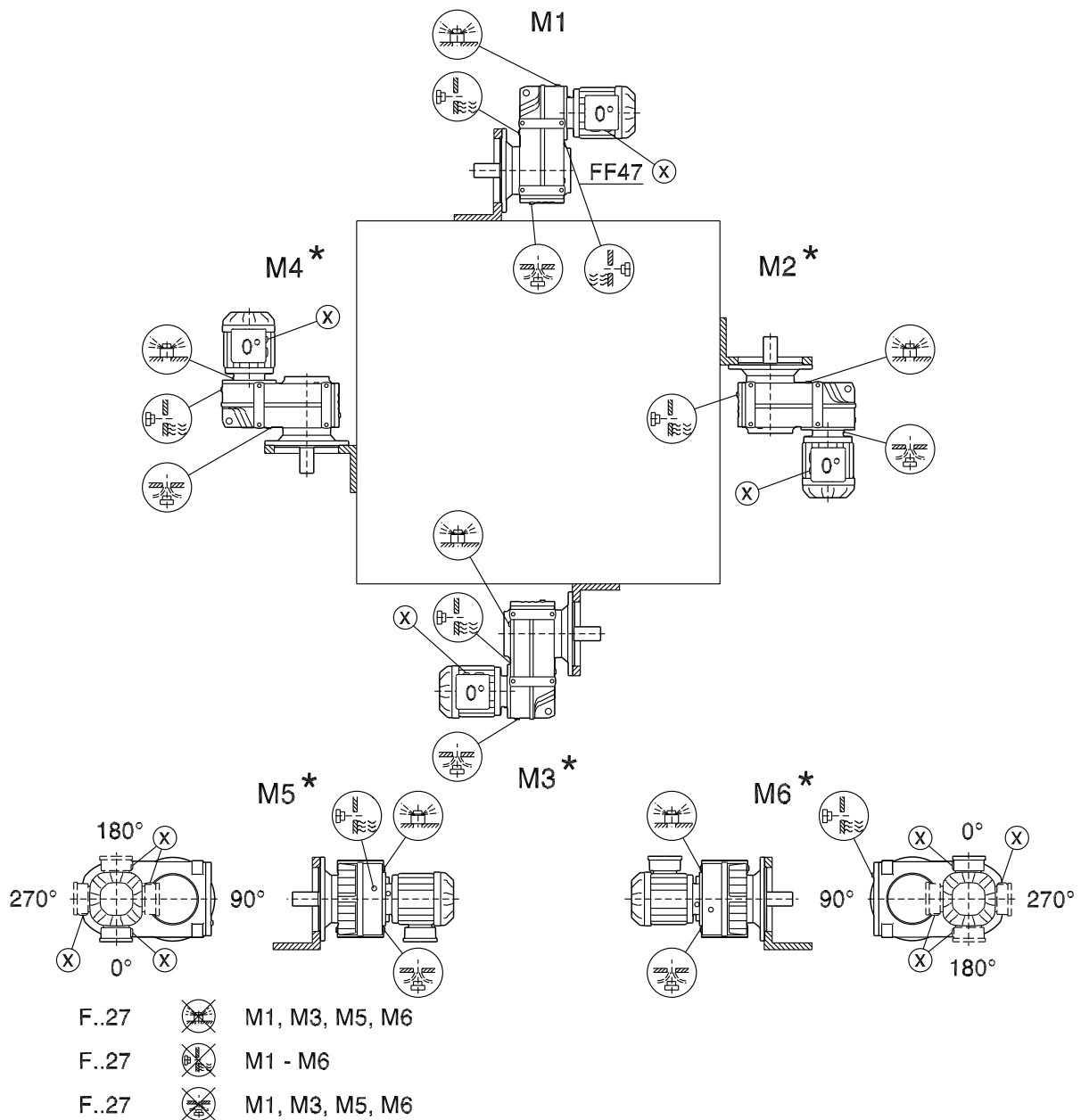
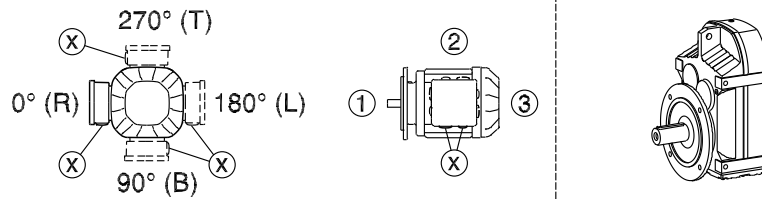


Gear unit mounting positions and order information

Mounting positions of parallel-shaft helical gearmotors

5.5.2 FF/FAF/FHF/FAZ/FHZ27-157, FVF/FVZ27-107

42 043 04 00

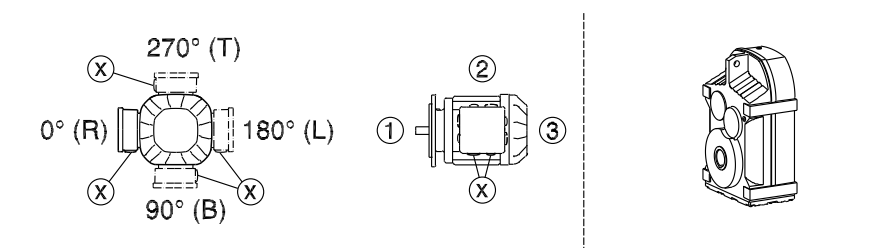


* → (page 59)

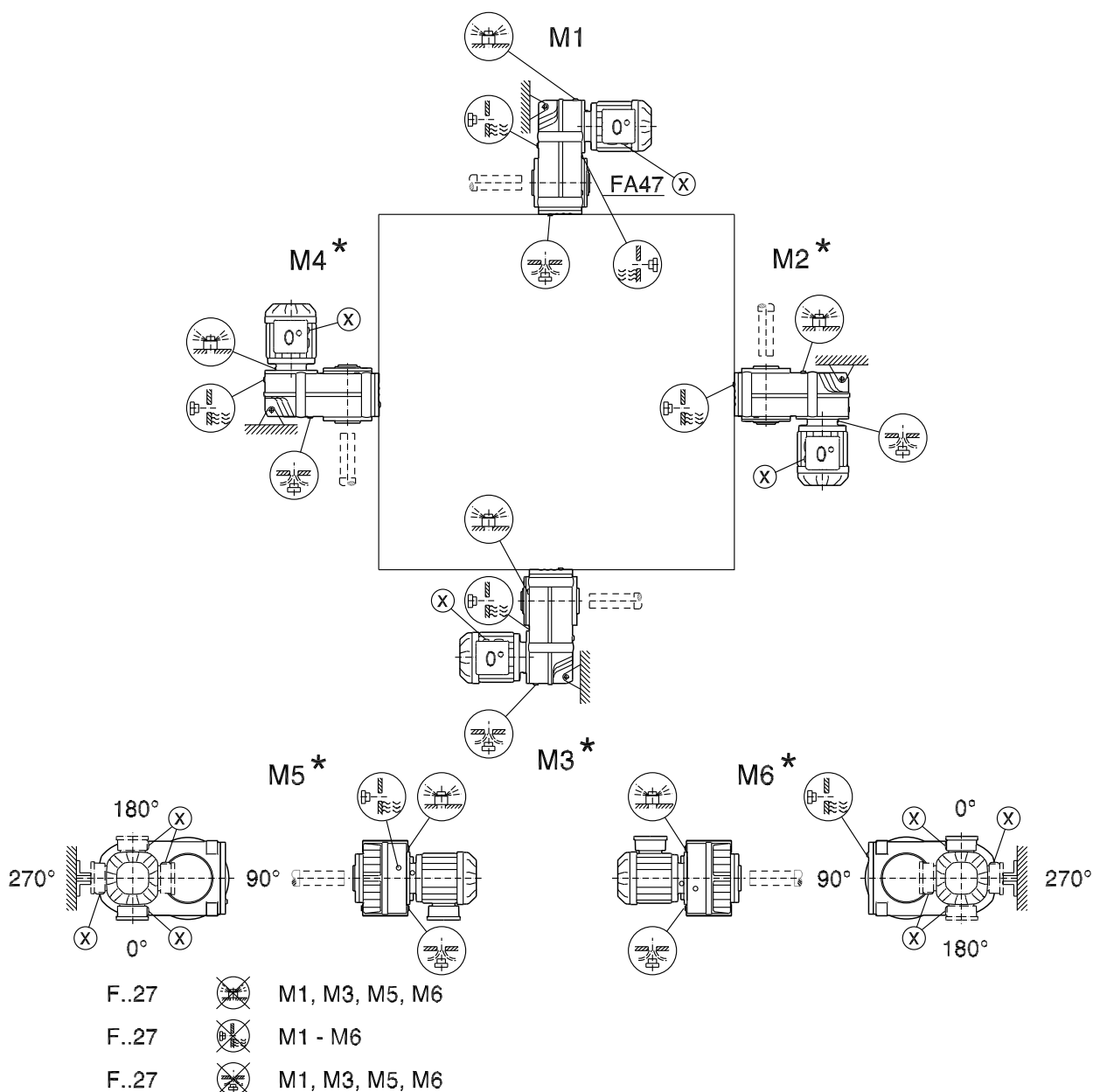


5.5.3 FA/FH27-157, FV27-107, FT37-97

42 044 04 00



5



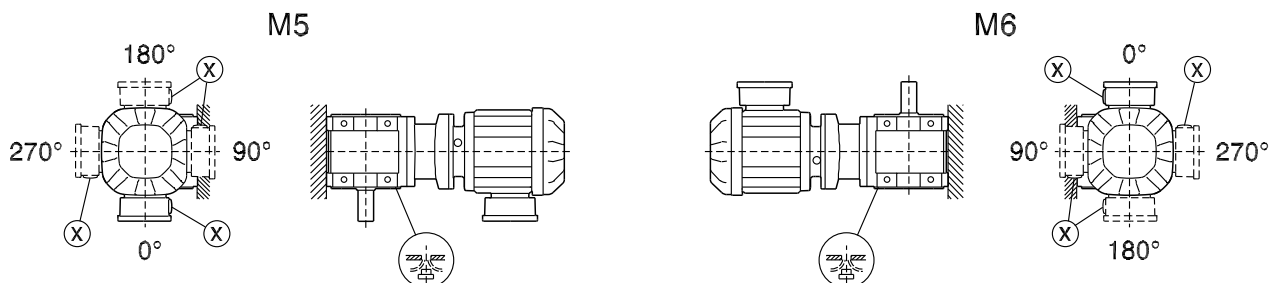
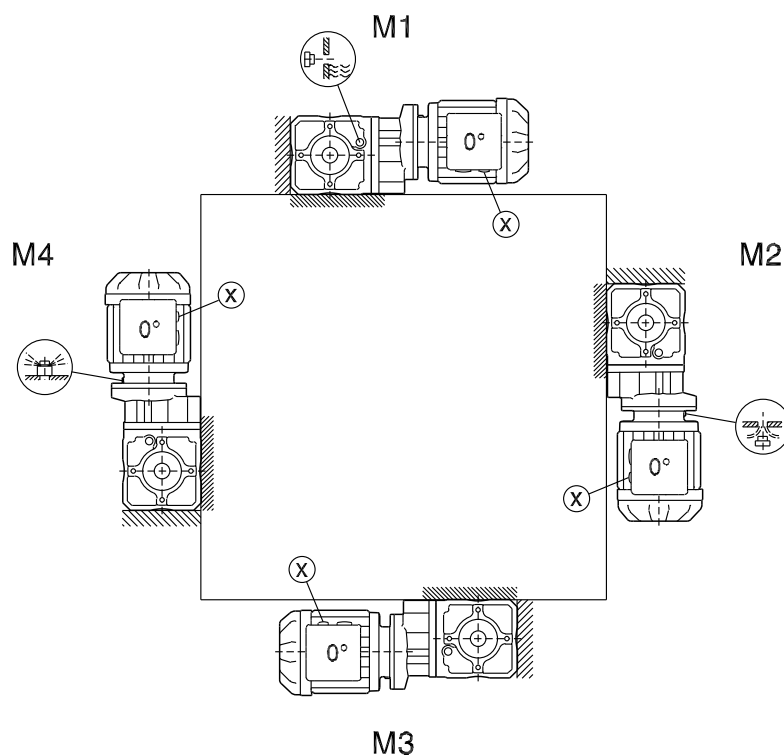
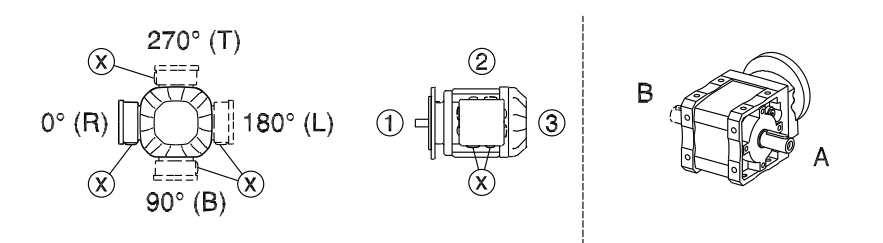
* → (page 59)



5.6 Mounting positions of helical-bevel gearmotors

5.6.1 K/KA..B/KH19B-29B

33 010 00 13



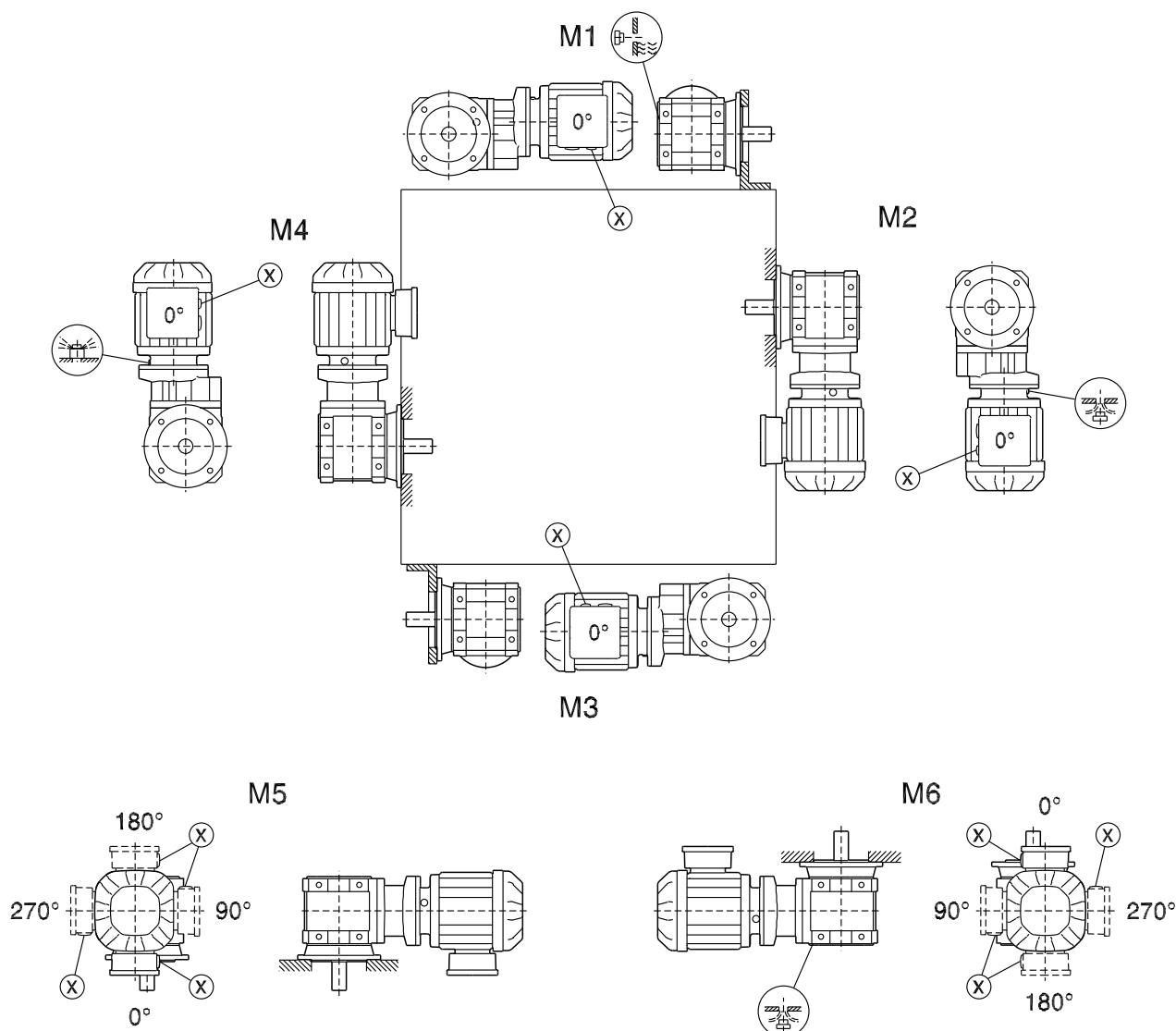
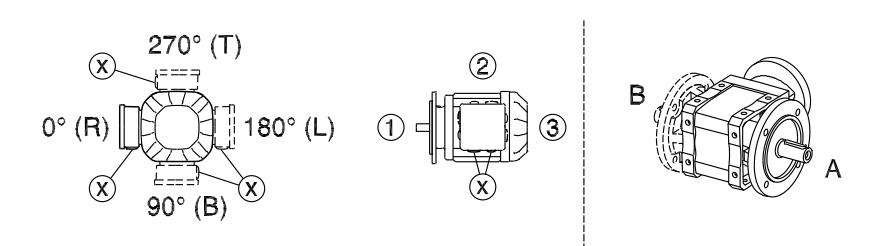
* → (page 59)

Observe the notes in chapter "Project planning for gear units" / "Overhung and axial loads" (page 46).



5.6.2 KF..B/KAF..B/KHF19B-29B

33 011 00 13



* → (page 59)

Observe the notes in chapter "Project planning for gear units" / "Overhung and axial loads" (page 46).

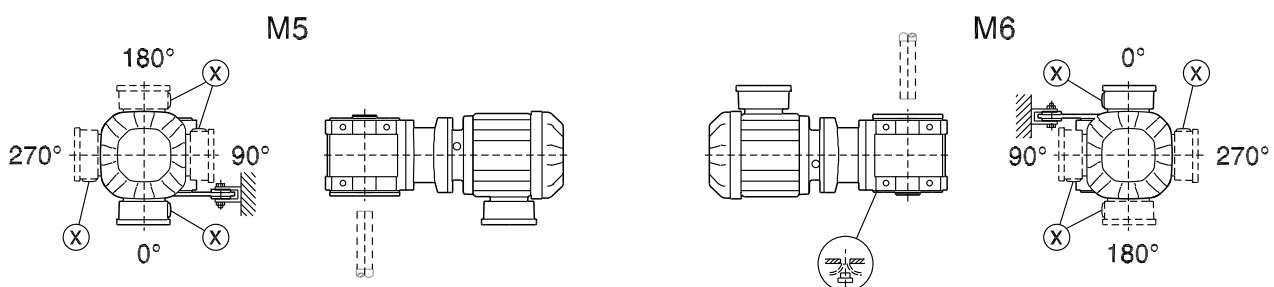
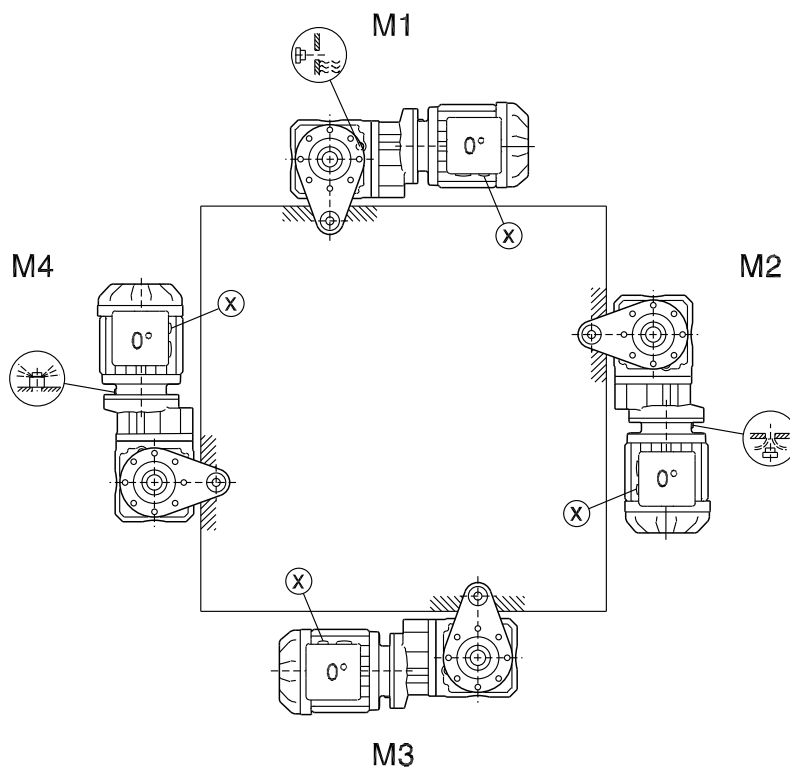
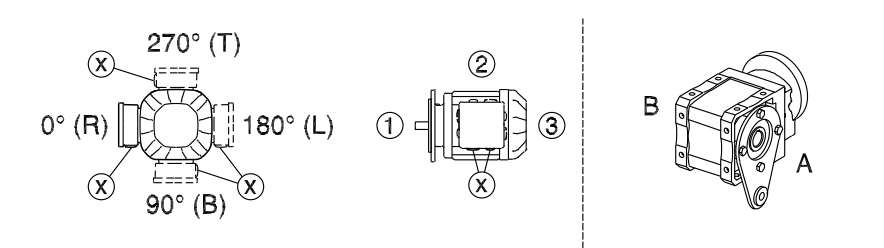


Gear unit mounting positions and order information

Mounting positions of helical-bevel gearmotors

5.6.3 KA..B/KH19B-29B

33 012 00 13



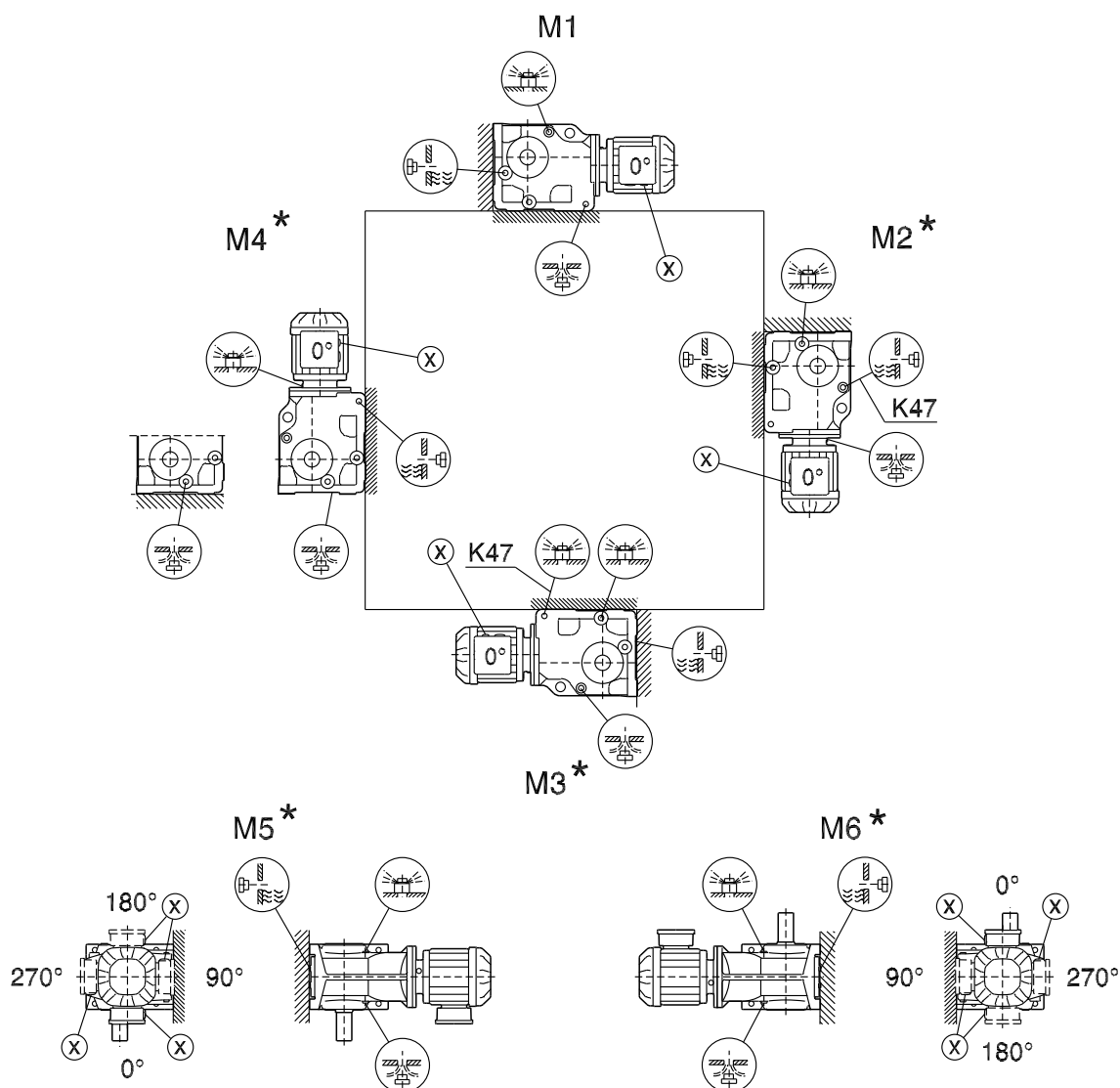
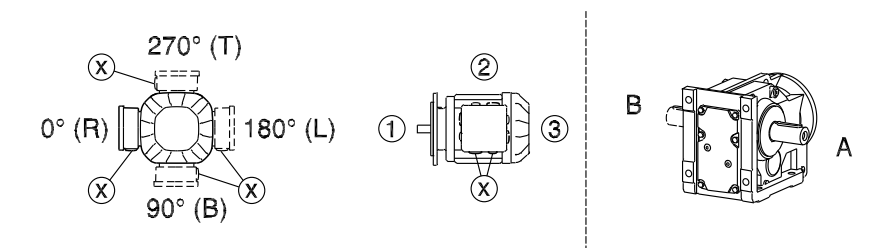
* → (page 59)

Observe the notes in chapter "Project planning for gear units" / "Overhung and axial loads" (page 46).



5.6.4 K/KA..B/KH37B-157B, KV37B-107B

34 025 04 00



* → (page 59)

Observe the notes in chapter "Project planning for gear units" / "Overhung and axial loads" (page 46).

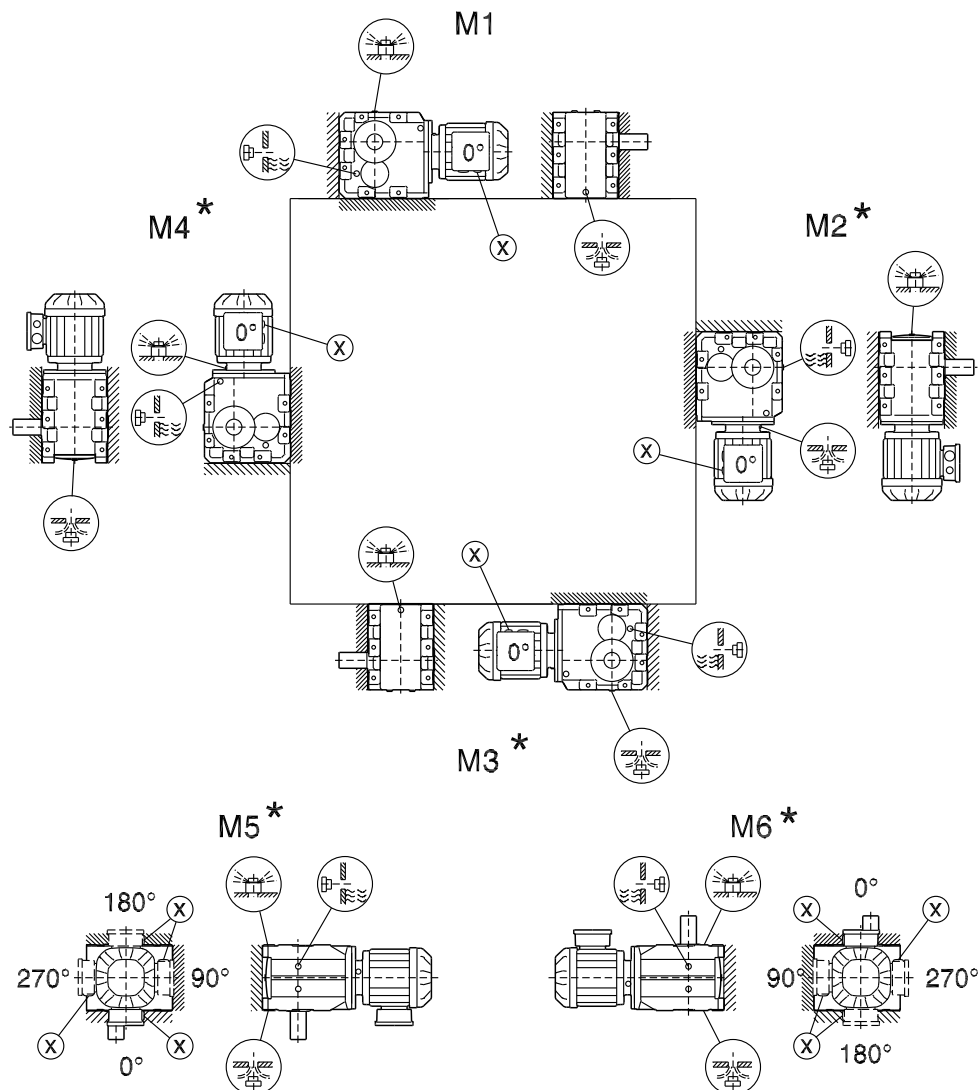
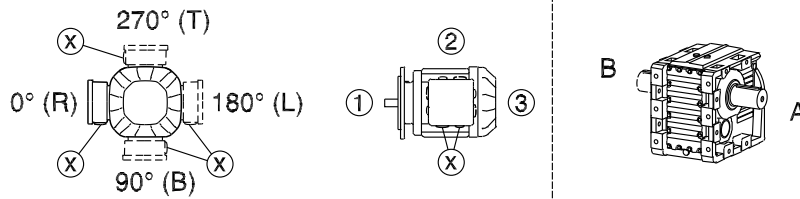


Gear unit mounting positions and order information

Mounting positions of helical-bevel gearmotors

5.6.5 K167-187, KH167B-187B

34 026 04 00



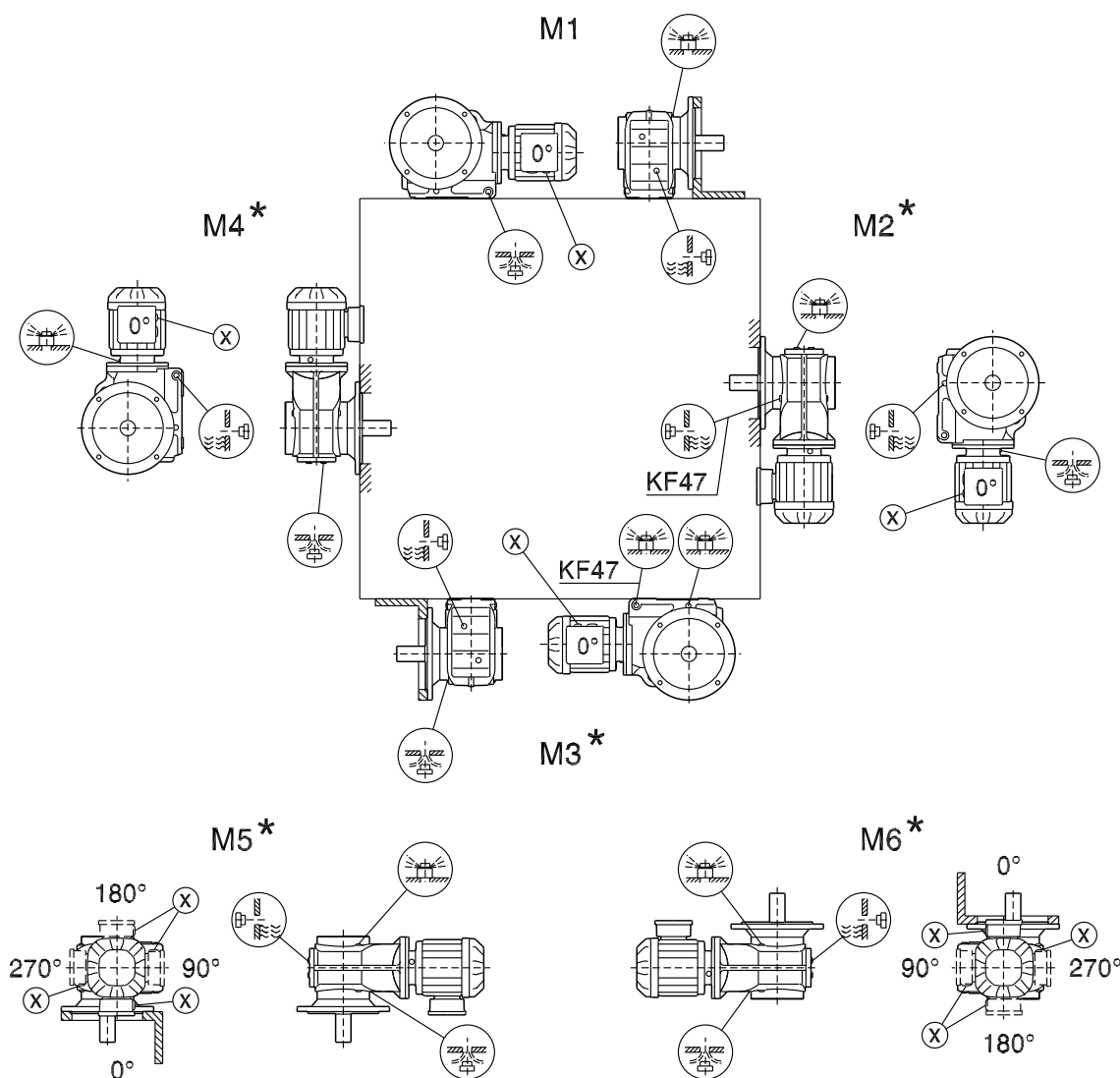
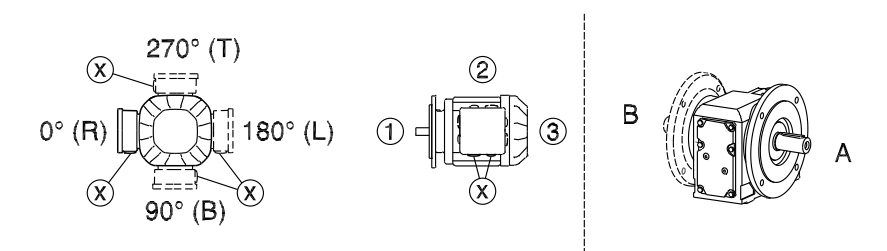
* → (page 59)

Observe the notes in chapter "Project planning for gear units" / "Overhung and axial loads" (page 46).



5.6.6 KF/KAF/KHF/KAZ/KHZ37-157, KVF/KVZ37-107

34 027 04 00



* → (page 59)

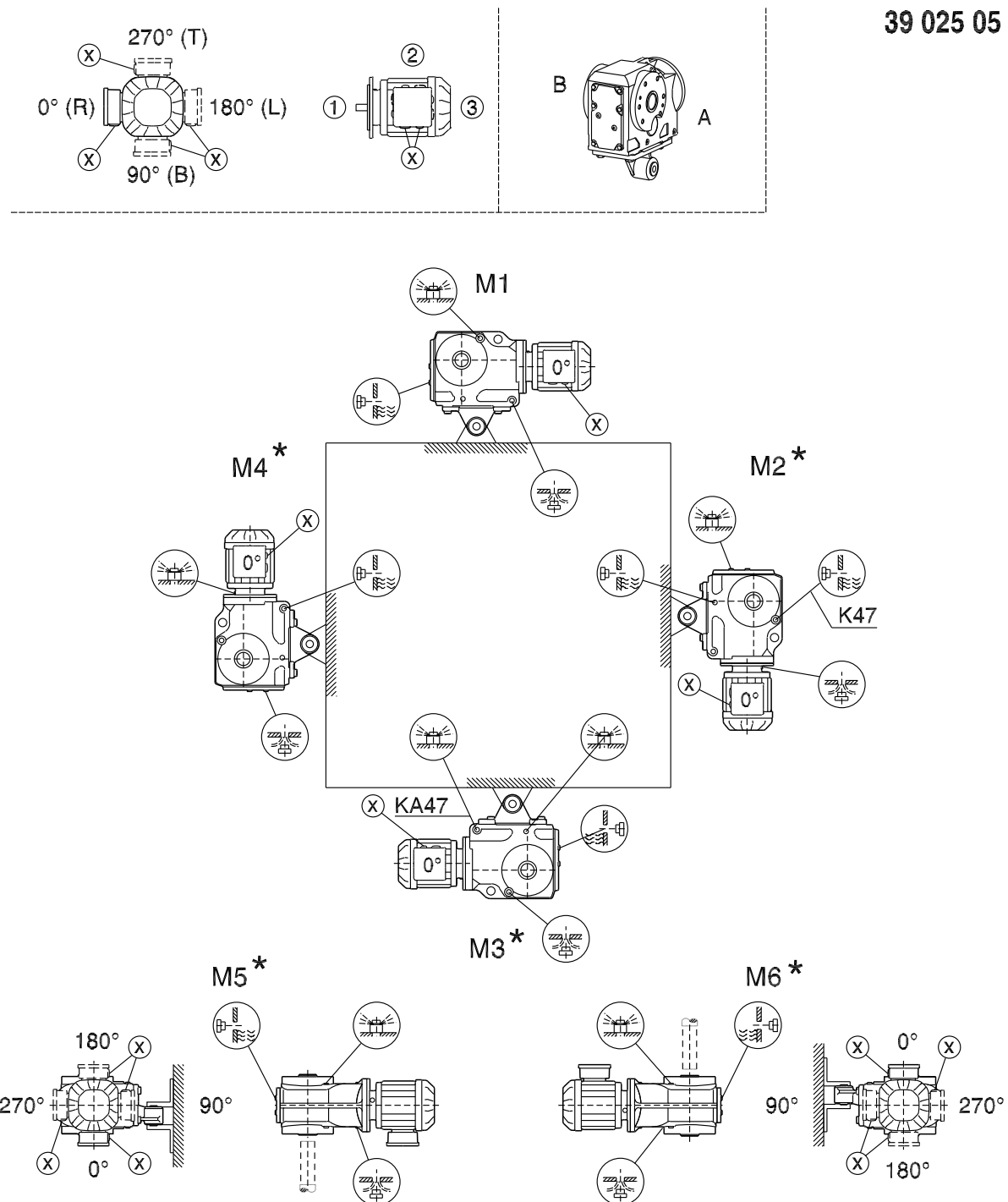


Gear unit mounting positions and order information

Mounting positions of helical-bevel gearmotors

5.6.7 KA/KH37-157, KV37-107, KT37-97

39 025 05 00

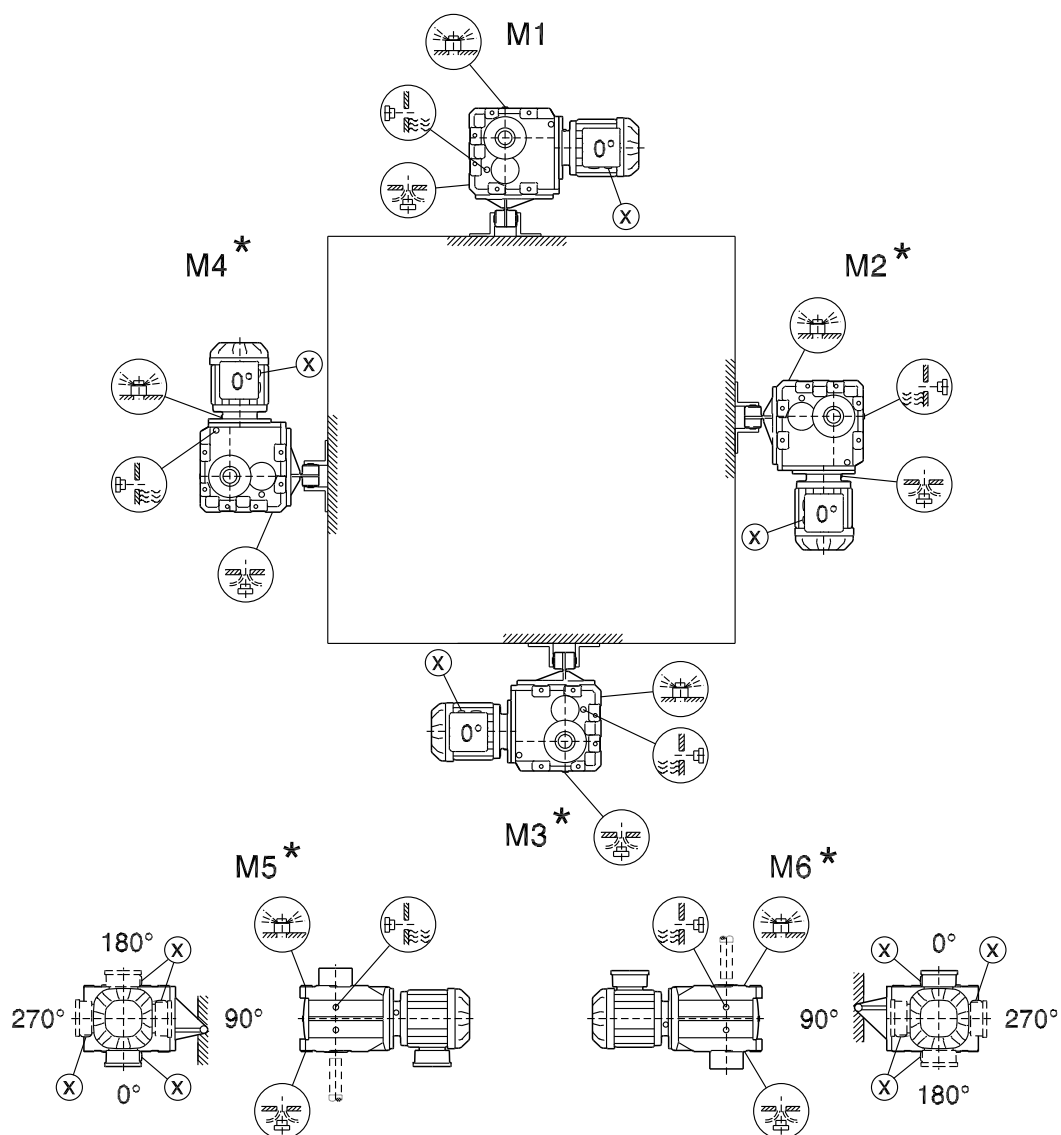
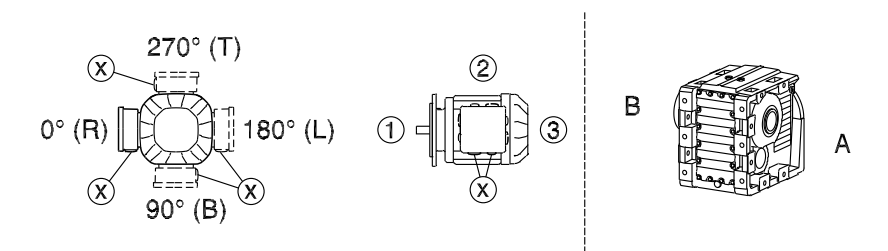


* → (page 59)



5.6.8 KH167-187

39 026 05 00



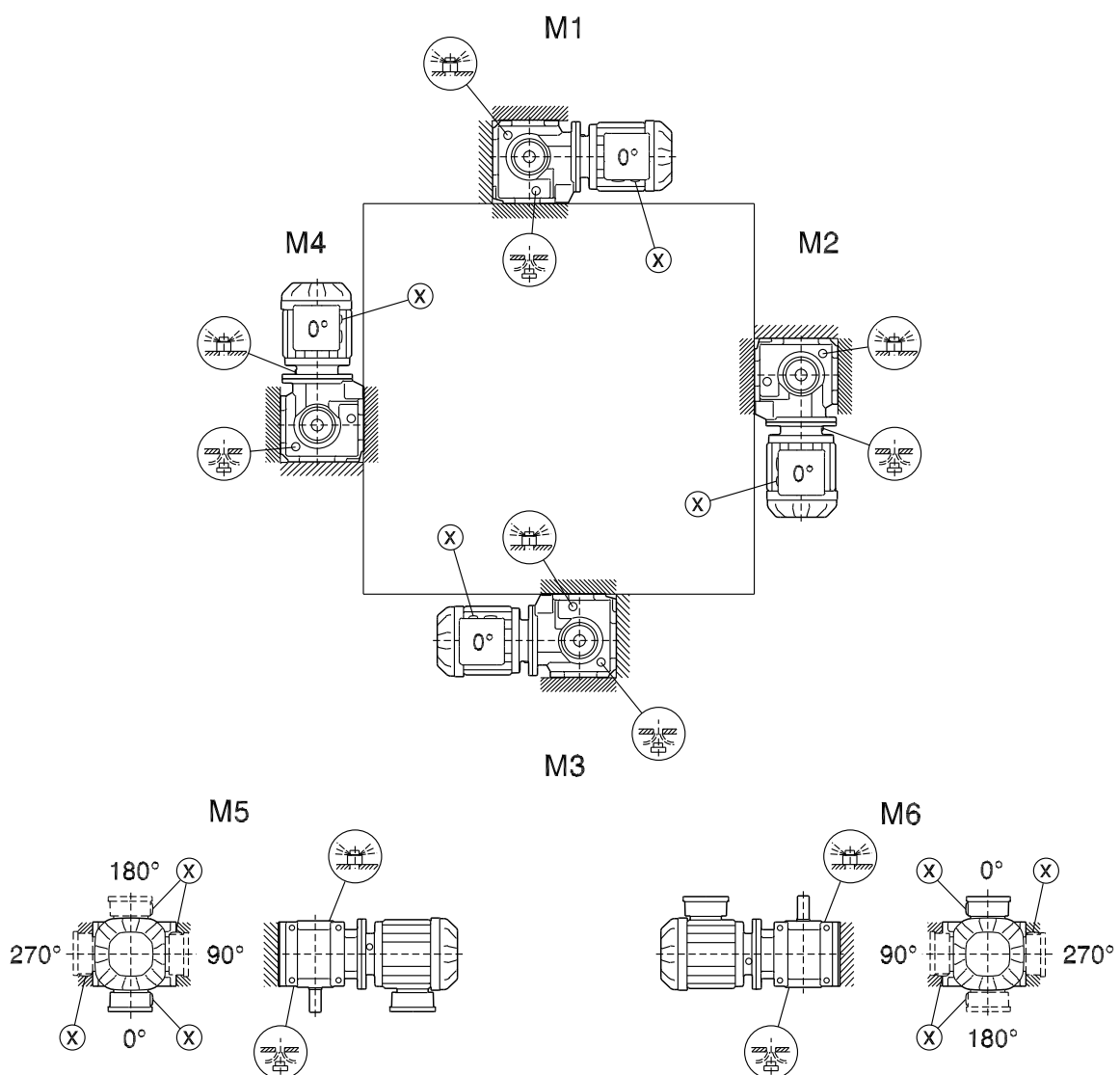
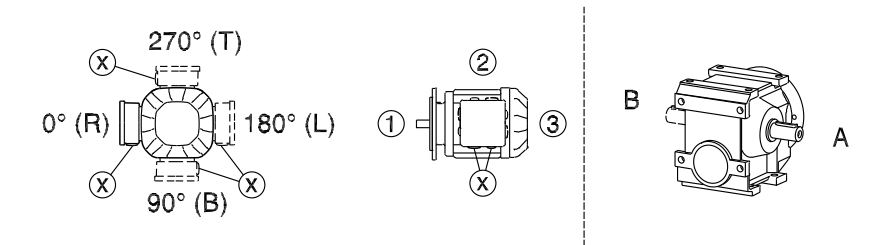
* → (page 59)



5.7 Mounting positions of helical-worm gearmotors

5.7.1 S37

05 025 04 00



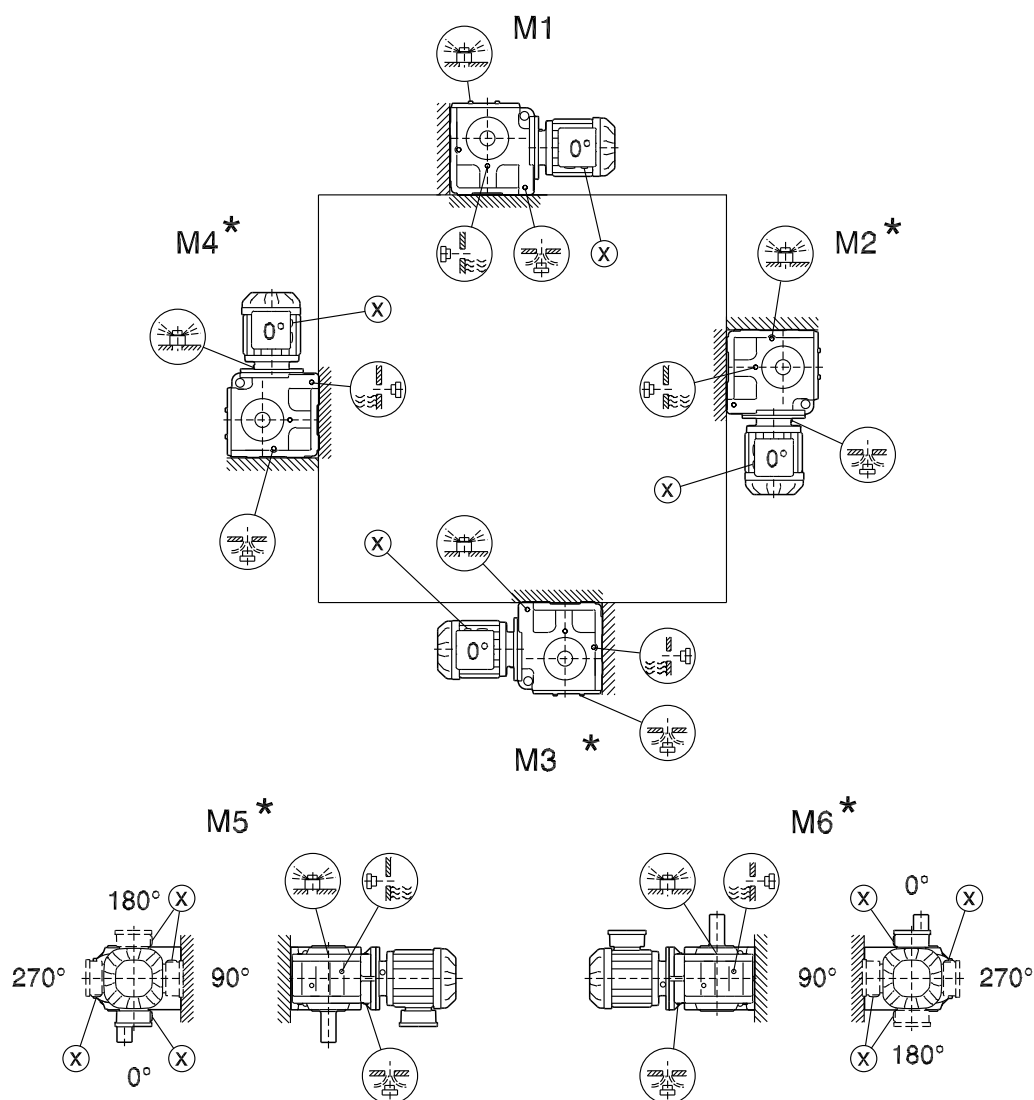
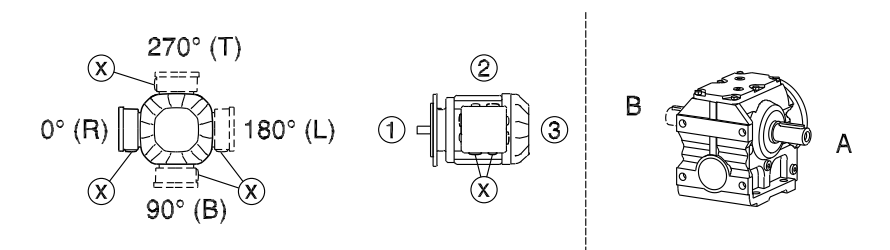
* → (page 59)

Observe the notes in chapter "Project planning for gear units" / "Overhung and axial loads" (page 46).



5.7.2 S47-S97

05 026 04 00



* → (page 59)

Observe the notes in chapter "Project planning for gear units" / "Overhung and axial loads" (page 46).

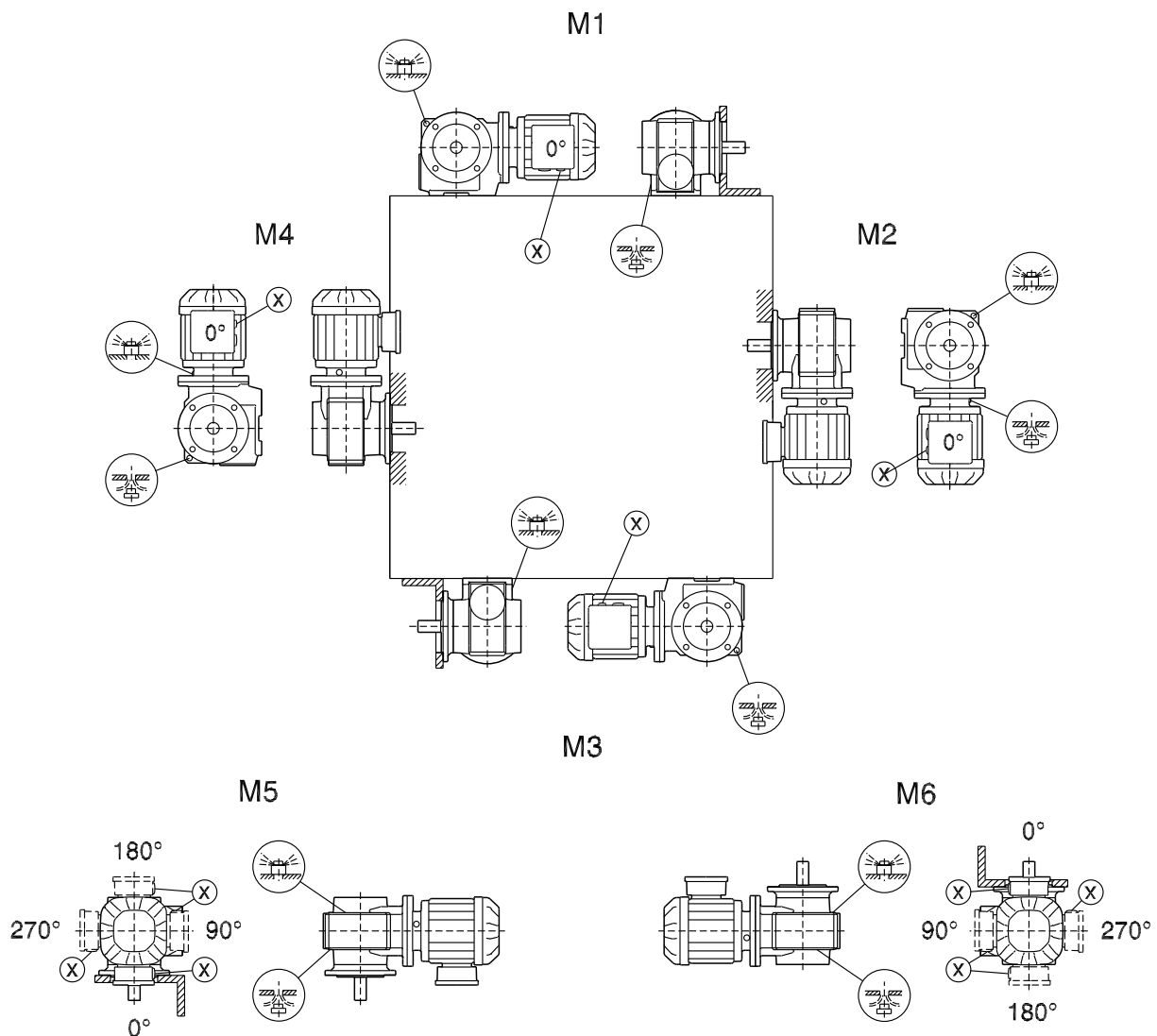
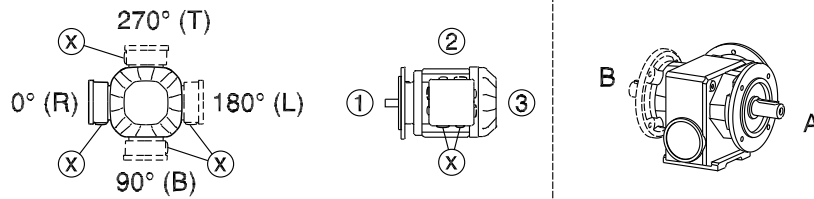


Gear unit mounting positions and order information

Mounting positions of helical-worm gearmotors

5.7.3 SF/SAF/SHF37

05 027 04 00

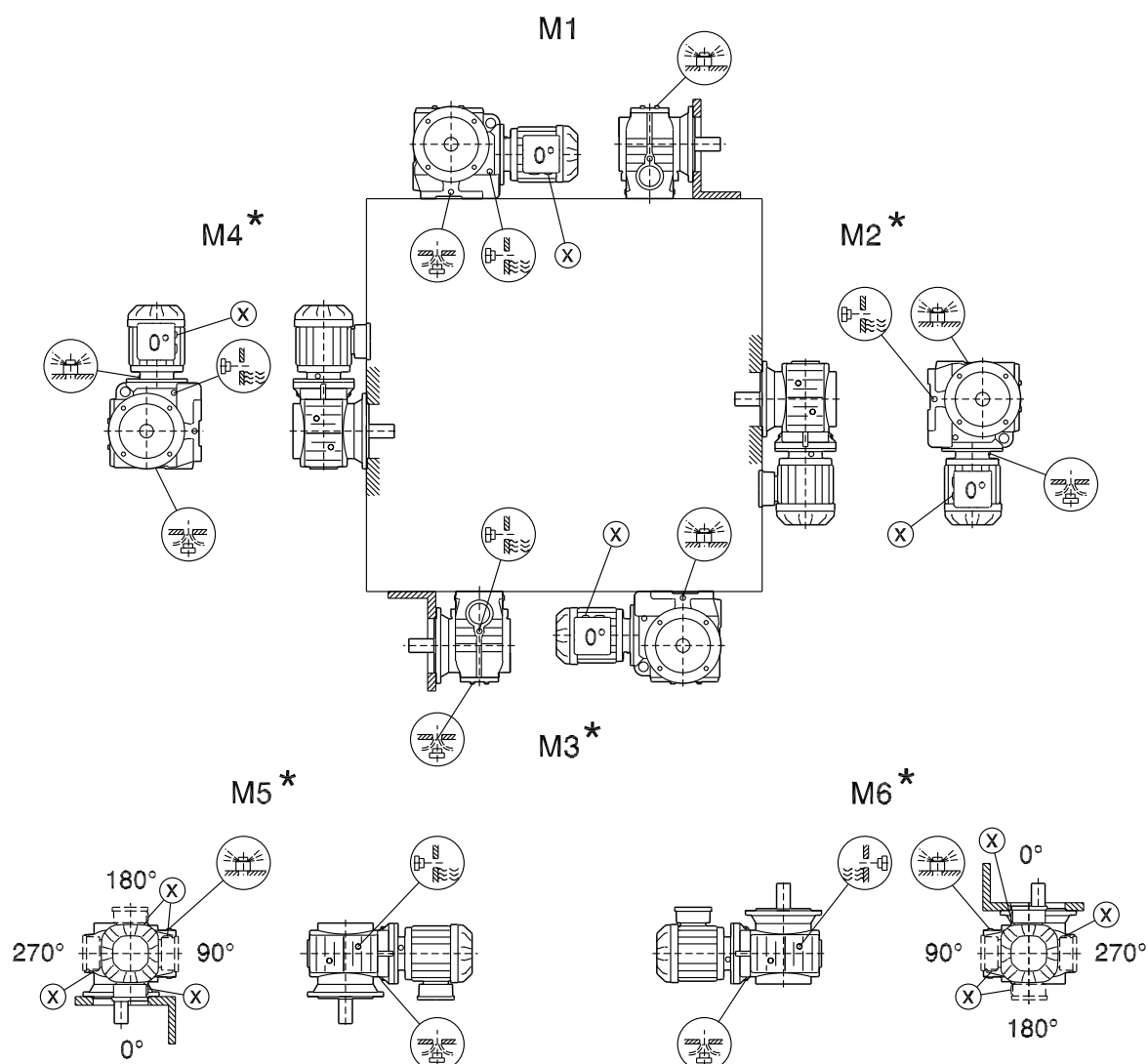
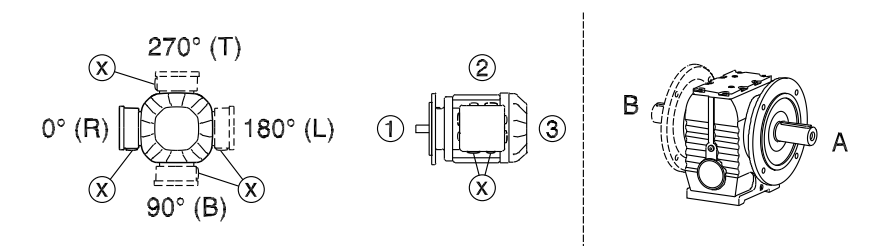


* → (page 59)



5.7.4 SF/SAF/SHF/SAZ/SHZ47-97

05 028 04 00



* → (page 59)

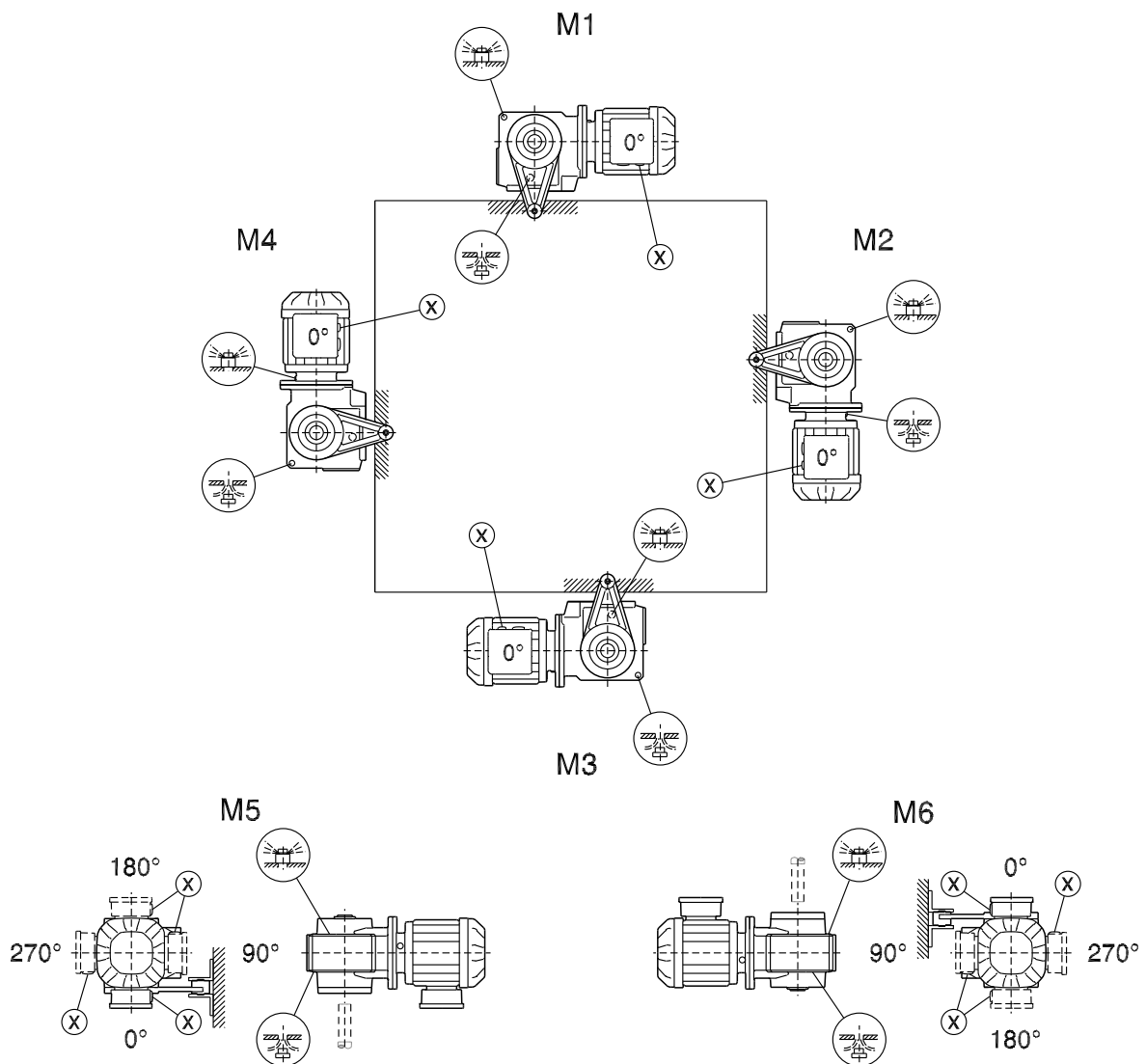
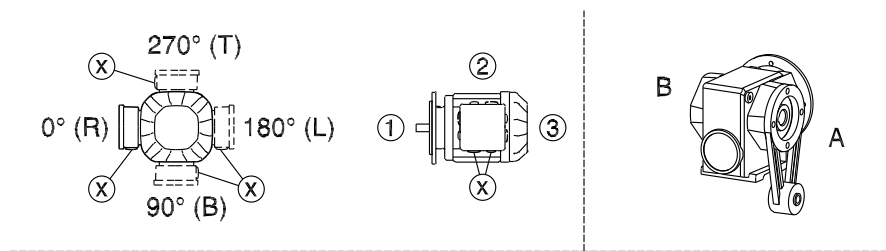


Gear unit mounting positions and order information

Mounting positions of helical-worm gearmotors

5.7.5 SA/SH/ST37

28 020 05 00

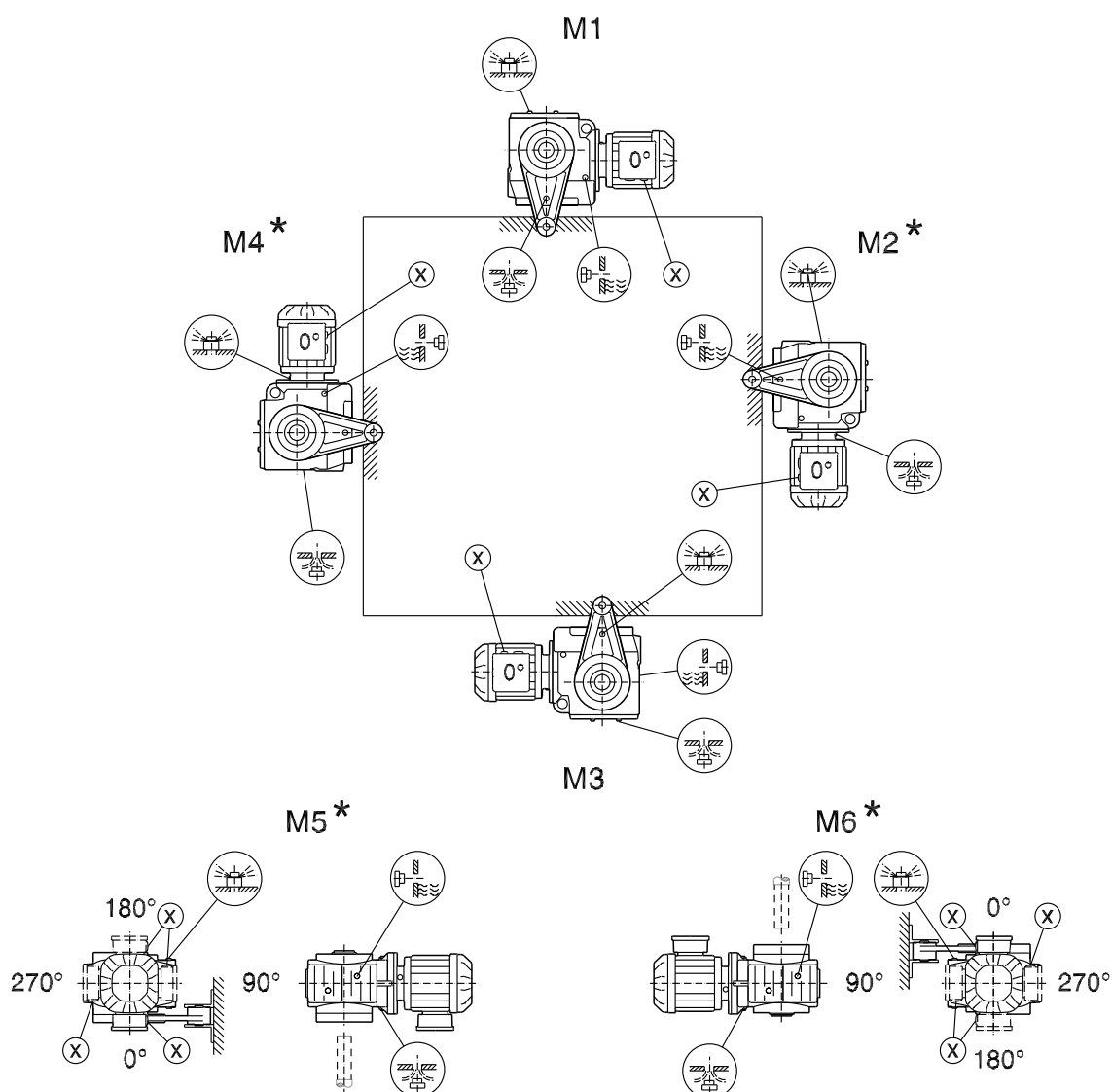
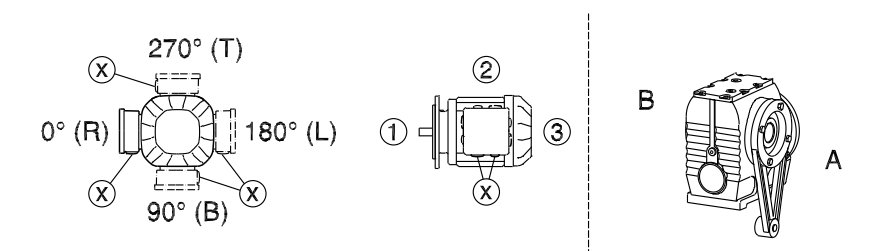


* → (page 59)



5.7.6 SA/SH/ST47-97

28 021 04 00



* → (page 59)



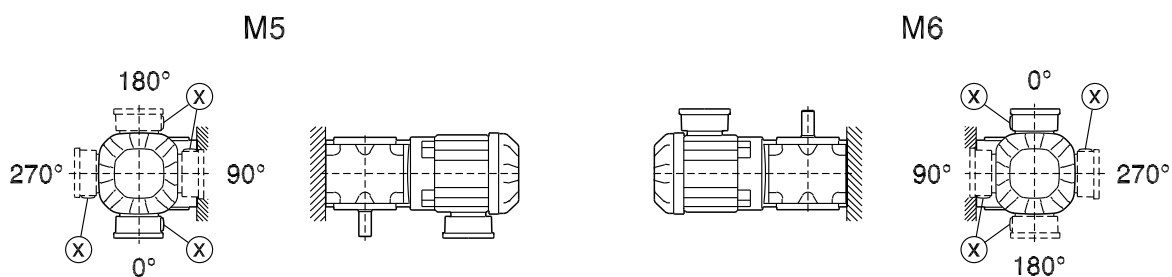
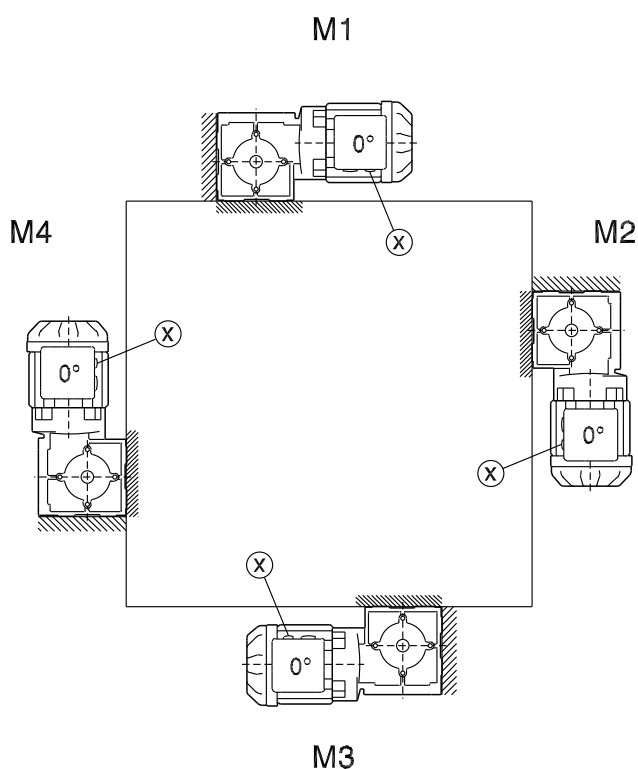
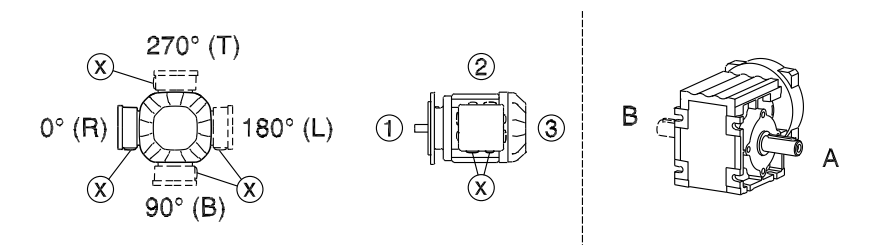
Gear unit mounting positions and order information

Mounting positions of SPIROPLAN® gearmotors

5.8 Mounting positions of SPIROPLAN® gearmotors

5.8.1 W10-30

20 001 02 02

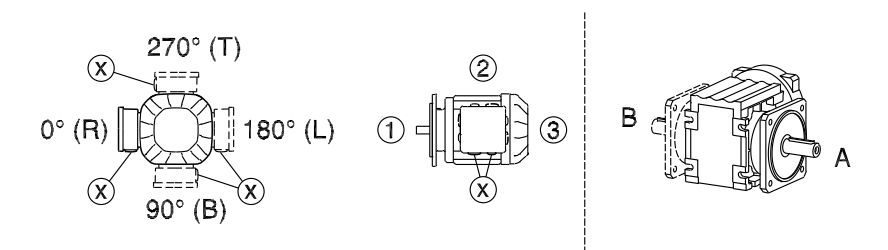


* → (page 59)

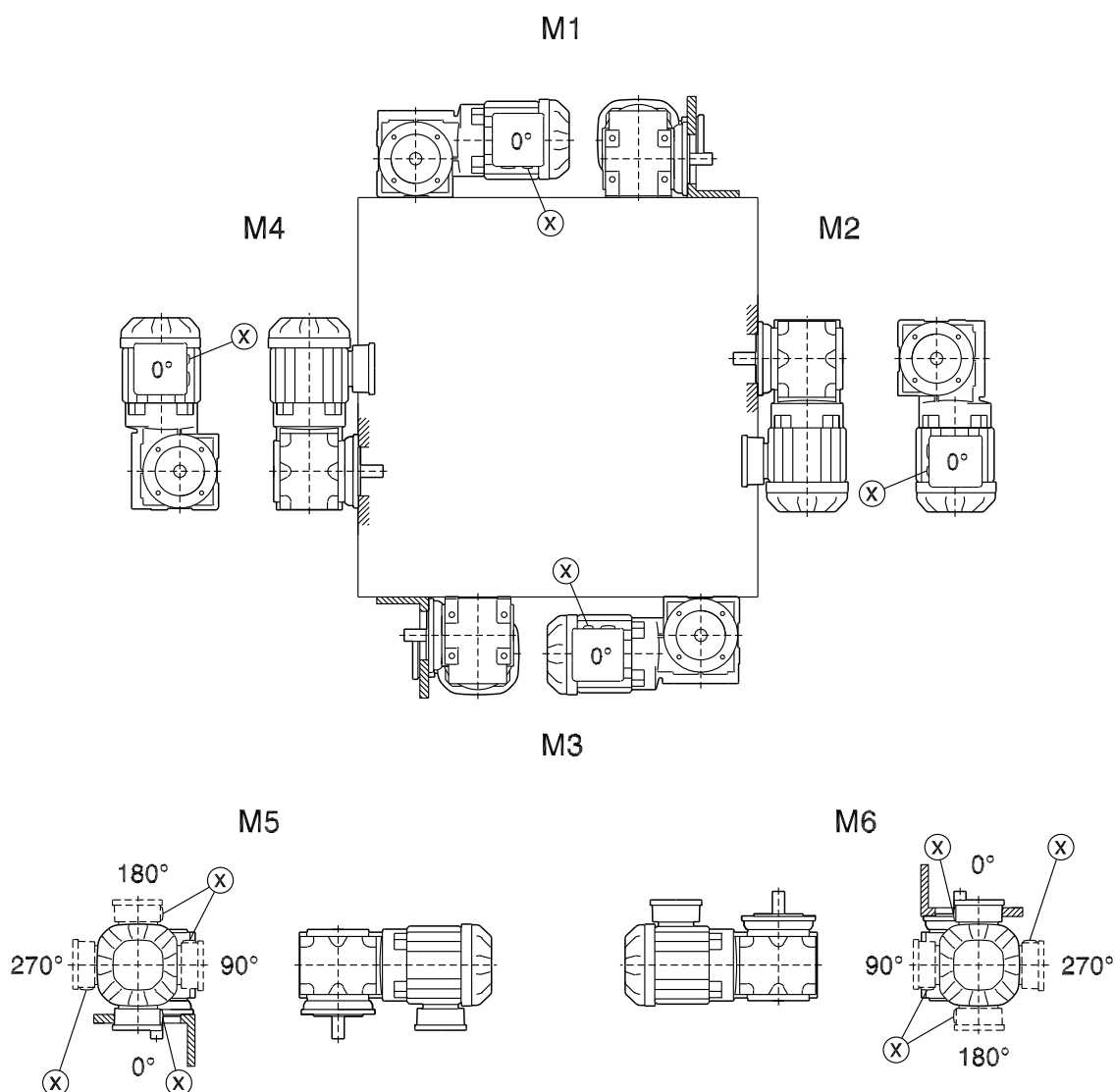


5.8.2 WF10-30

20 002 02 02



5



* → (page 59)

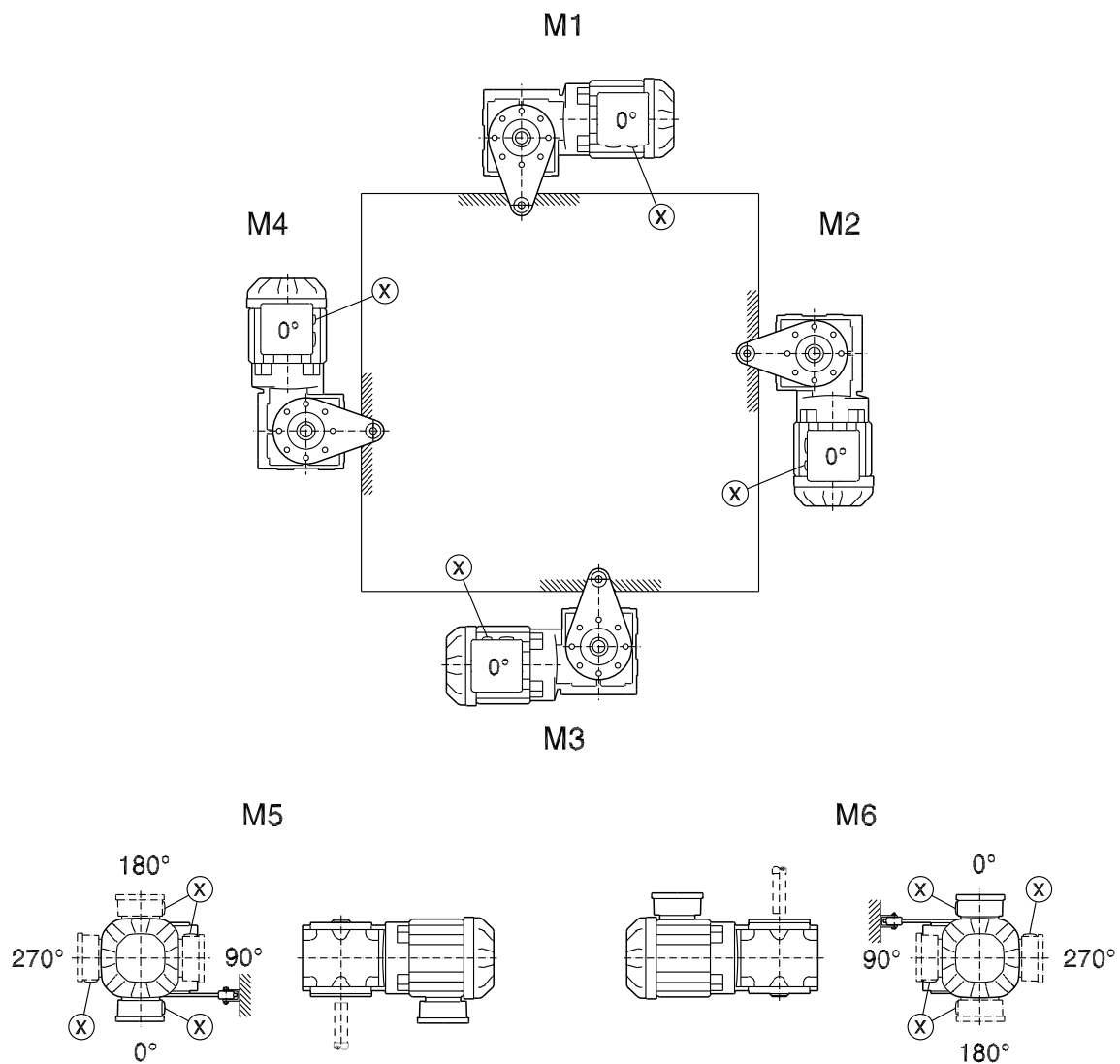
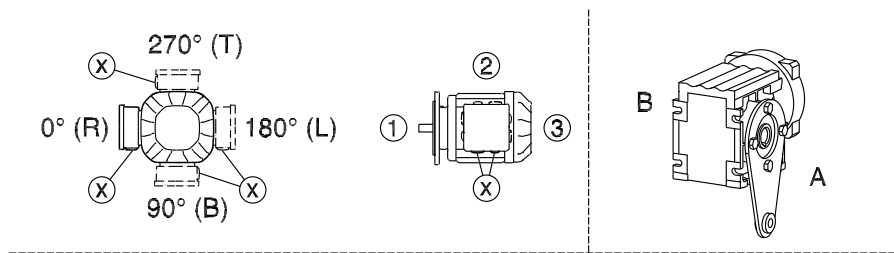


Gear unit mounting positions and order information

Mounting positions of SPIROPLAN® gearmotors

5.8.3 WA10-30

20 003 03 02

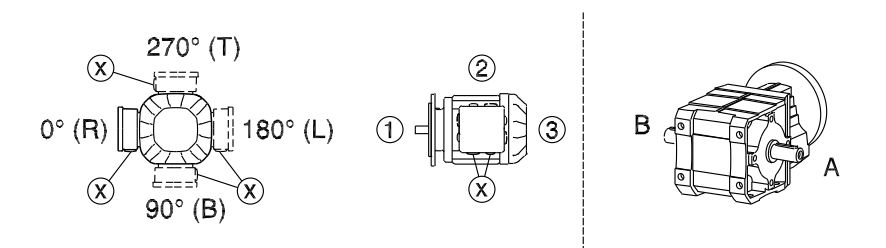


* → (page 59)

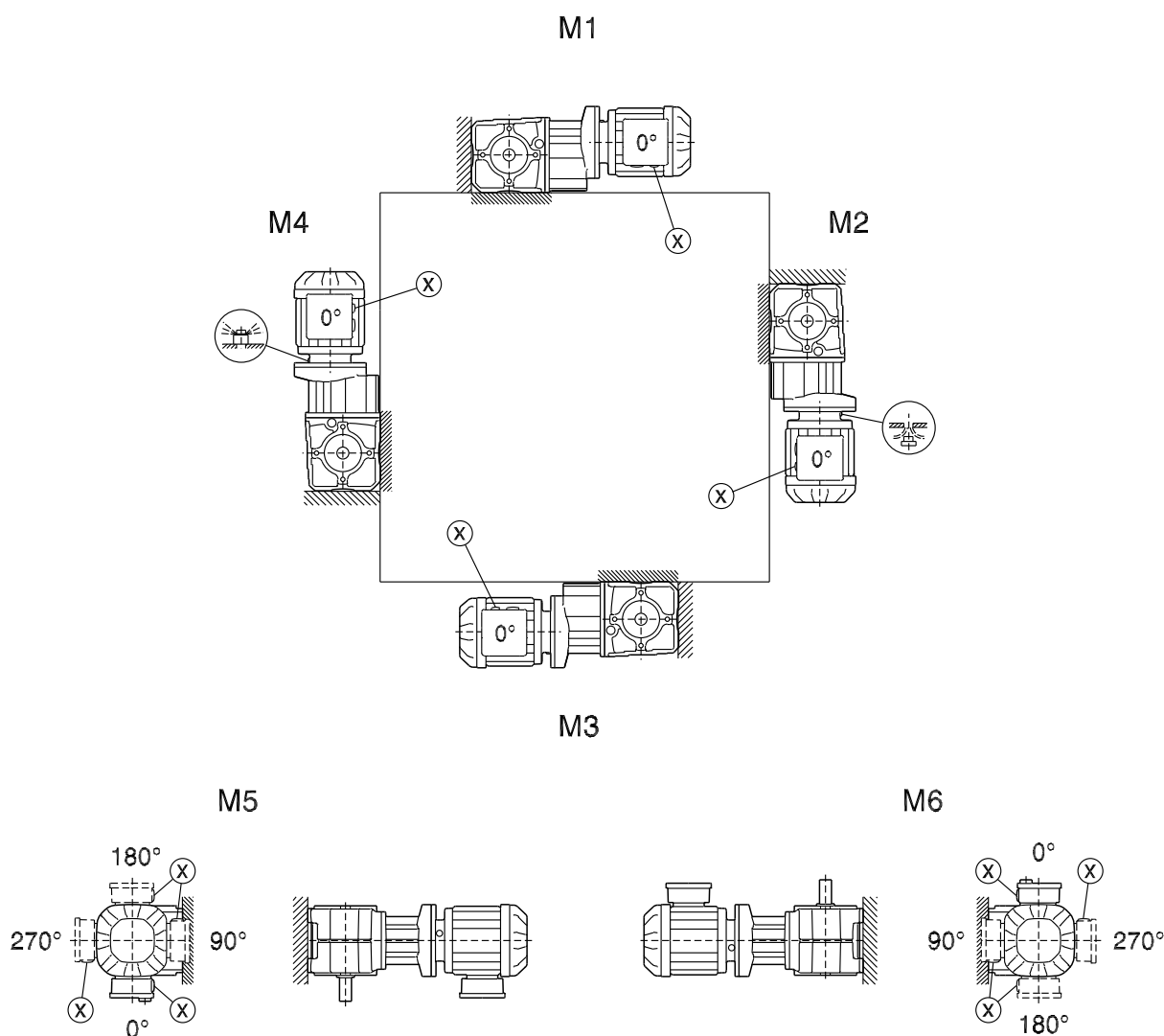


5.8.4 W/WA..B/WH37B-47B

20 012 02 07



5

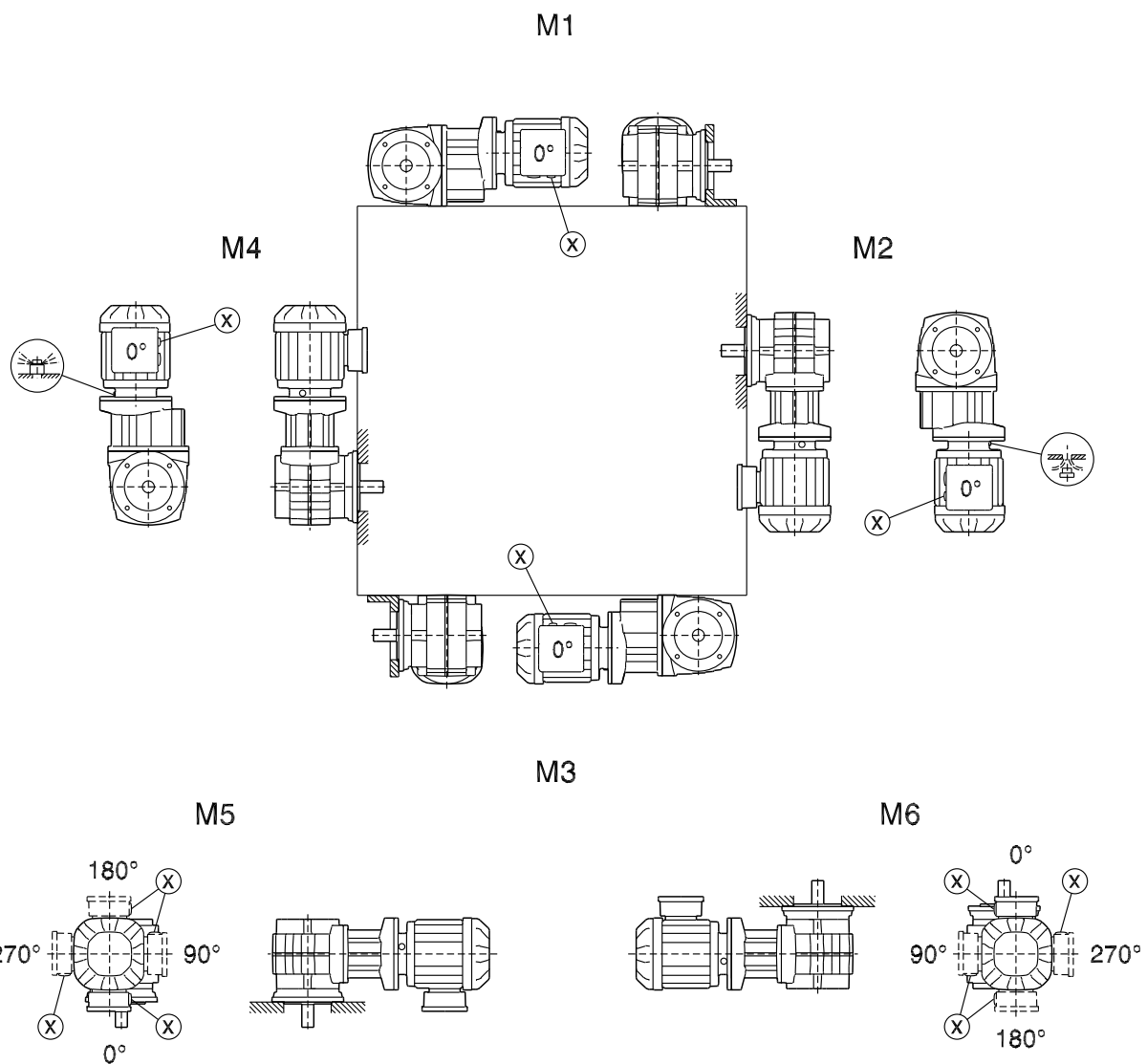
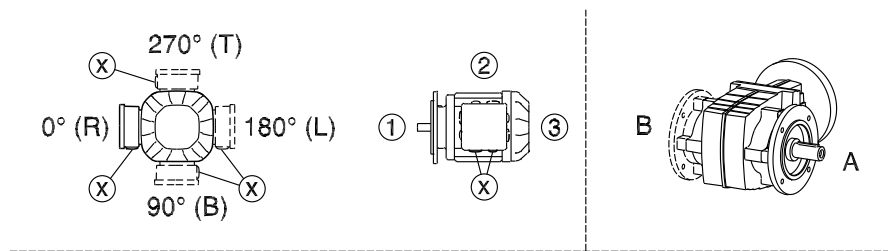


* → (page 59)



5.8.5 WF/WAF/WHF37-47

20 013 02 07

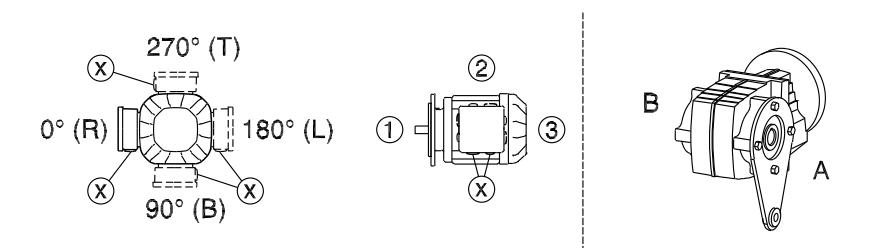


* → (page 59)



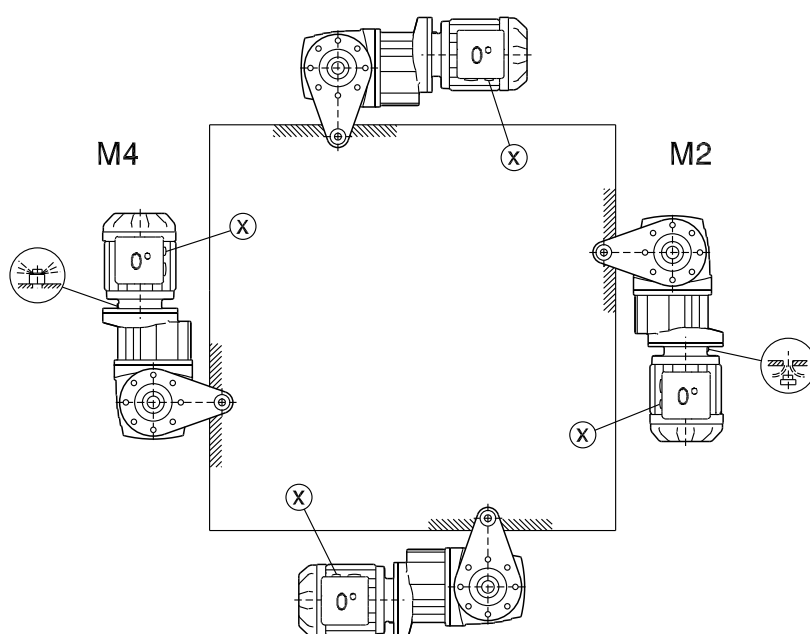
5.8.6 WA/WH/WT37-47

20 014 02 07



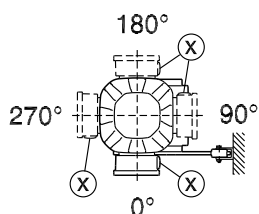
5

M1

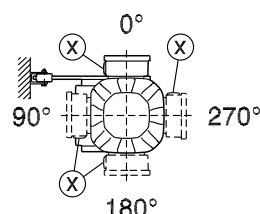


M3

M5



M6

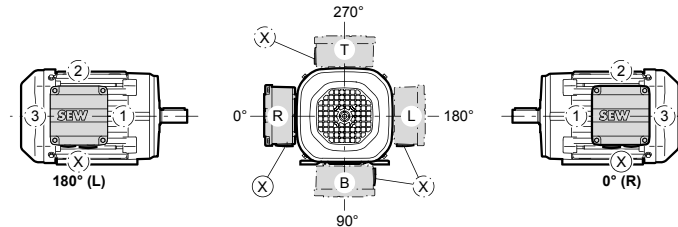


* → (page 59)



5.9 Mounting positions of AC motors

5.9.1 Motor terminal box position and cable entry



8670476811

5.9.2 Mounting positions

B3 	B6 	B7
B8 	V5 	V6
B5 	V1 	V3
B35 	V15 	V36
B14 	V18 	V19
B34 	V17 	V37
B65 	B75 	B85

9007203230054539