

5 Mounting Positions and Important Order Information

5.1 General information on mounting positions

Mounting position designation

SEW-EURODRIVE differentiates between six mounting positions M1 ... M6 for gear units and gearmotors. The following figure shows the position of the gear unit in mounting positions M1 ... M6.

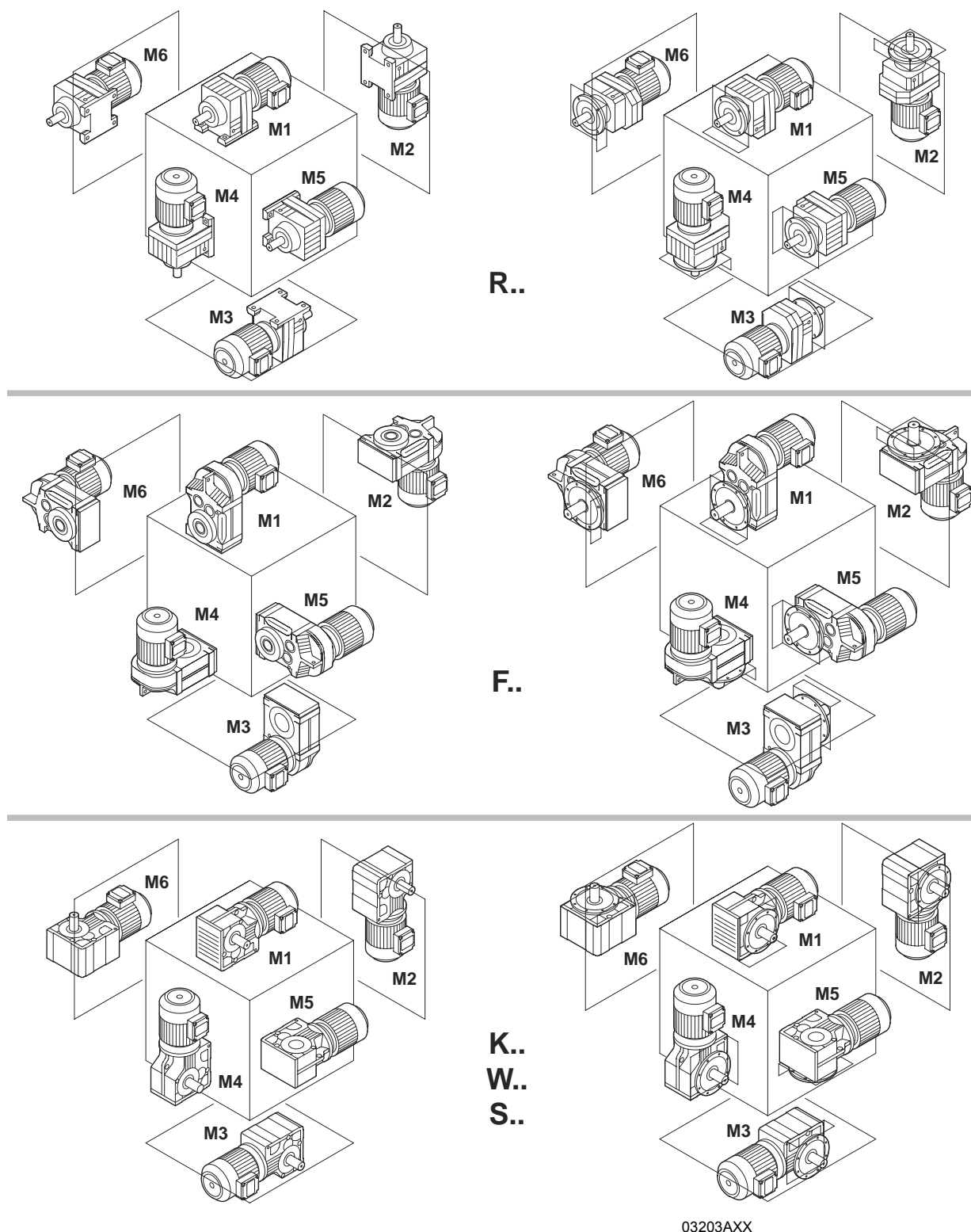


Figure 9: Depiction of mounting positions M1 ... M6

5.2 Important order information

For all gearmotors

The following order information is required for R, F, K and S gearmotors in addition to the mounting position to exactly determine the design of the drive. This information is also required for Spiroplan® (W) gearmotors that do not depend on a particular mounting position.

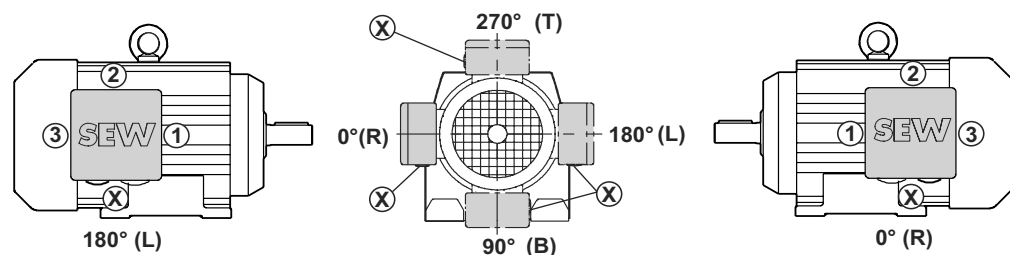
Position of motor terminal box and cable entry

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 (→ Figure 10). A change in the product standard EN 60034 specifies that the following designations will have to be used for terminal box positions 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). The previous designation is retained for gearmotors. Figure 10 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. The positions are "X" (= standard position), "1", "2" or "3" (→ Figure 10).



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Figure 10: Position of terminal box and cable entry

Unless indicated otherwise, you will receive the terminal box type 0° (R) with "X" cable entry. We recommend selecting cable entry "2" with mounting position M3.



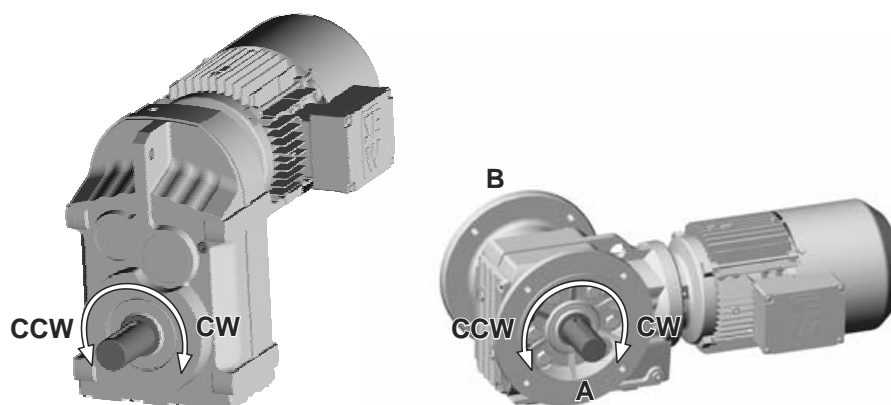
- **When the terminal box is in the 90° (B) position**, check to see if the gearmotor has to be supported.
- **Only** cable entries "X" and "2" are possible for **DT56** and **DR63** motors. **Exception:** Cable entry "3" is also possible for DR63 with IS plug connector.
- The following cable entries are possible in the **DT71..BMG** motor with gear unit flange diameters 160 mm and 200 mm:

Terminal box position	0° (R)	90° (B)	180° (L)	270° (T)
Possible cable entries	"X", "3"	"X", "1", "3"	"1", "2"	"X", "1", "3"

Direction of rotation of the drive with a backstop

If the drive has a backstop RS, it will be necessary to indicate the direction of rotation for the drive. The following definition applies:

Looking onto the output shaft: Clockwise (CW) = Rotating clockwise
Counterclockwise (CCW) = Rotating counterclockwise



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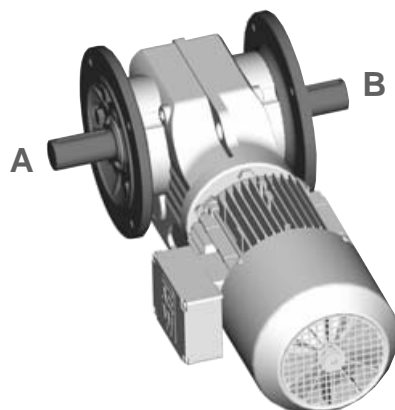
Figure 11: Direction of rotation of output

In right-angle gear units, it is also necessary to indicate if the direction of rotation is given looking onto the A or B end.

Position of the output shaft and the output flange

In right-angle gear units, it is also necessary to indicate the position of the output shaft and the output flange:

- A or B or AB (→ Figure 12)



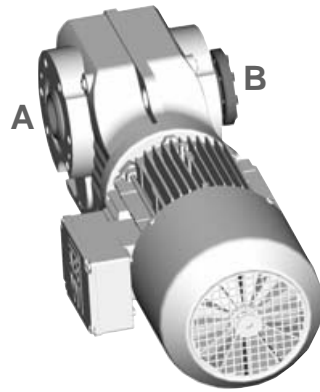
02585BXX

Figure 12: Position of the output shaft and the output flange

Position of the output end in right-angle gear units

In shaft mounted right-angle gear units with a shrink disk, it is also necessary to indicate whether the A or B end is the output end. As part of the rearrangement process Figure 13, 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.



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Figure 13: Position of the output end



You will find the permitted mounting surfaces (= hatched area) in the mounting position sheets (page 49 and the following pages).

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

Sample orders

Type (examples)	Mounting position	Shaft position	Flange position	Position of terminal box	Position of cable entry	Direction of rotation of output
K47DT71D4/RS	M2	A	-	0°	"X"	CW
SF77DV100L4	M6	AB	AB	90°	"3"	-
KA97DV132M4	M4	B	-	270°	"2"	-
KH107DV160L4	M1	A	-	180°	"3"	-
WF20DT71D4	-	A	A	0°	"X"	-
KAF67A	M3	A	B	-	-	-

Change in mounting position

Make sure to read the following information when you operate the gearmotor in a mounting position other than the one indicated in the order:

- Adjust lubricant fill quantity to match the new mounting position
- Adjust position of breather valve
- For helical-bevel gearmotors: Contact the 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 the SEW-EURODRIVE customer service when changing to mounting position M2.

5.3 Key to the mounting position sheets


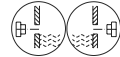



Spiroplan® gearmotors do not depend on any particular mounting position. However, mounting positions M1 to M6 are also shown for Spiroplan® gearmotors to assist you in working with this documentation.

Important: Spiroplan® gearmotors cannot be equipped with breather valves, oil level plugs or drain plugs.

Symbols used

The following table shows the symbols used in the mounting position sheets and their meaning:

Symbol	Meaning
	Breather valve
	Oil level plug
	Oil drain plug

Churning losses

* → page XX

Increased churning losses may arise in some mounting positions. Contact SEW-EURODRIVE in case of the following combinations:

Mounting position	Gear unit type	Gear unit size	Input speed [1/min]
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

Displayed shaft



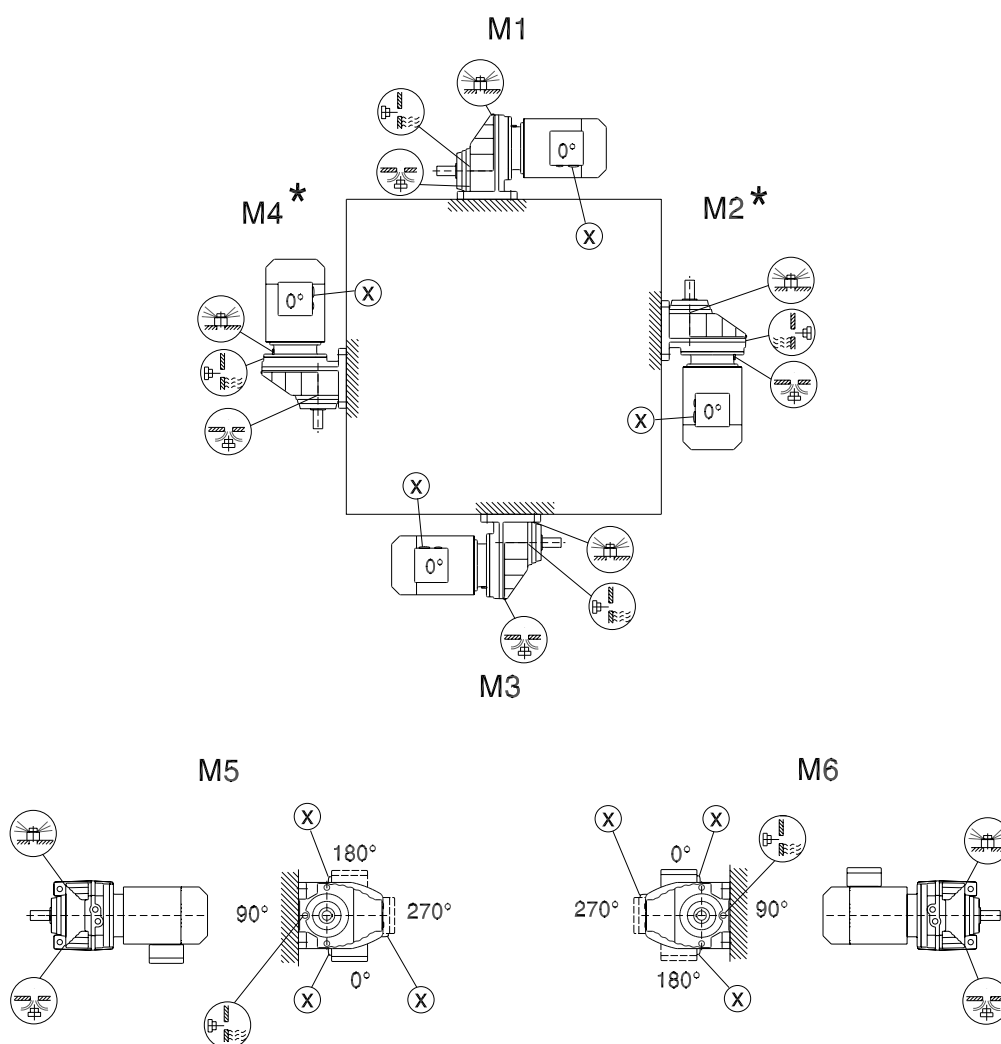
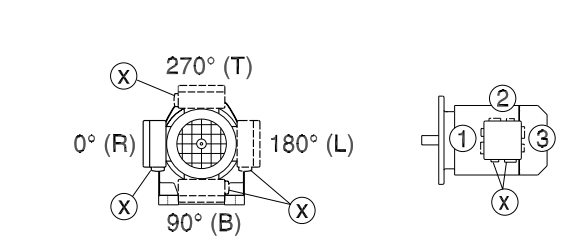
Note the following information regarding display of shafts in the mounting position sheets:

- **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 (\triangle shaft position) is always shown on the A end.

5.4 Mounting positions for helical gearmotors

RX57-RX107

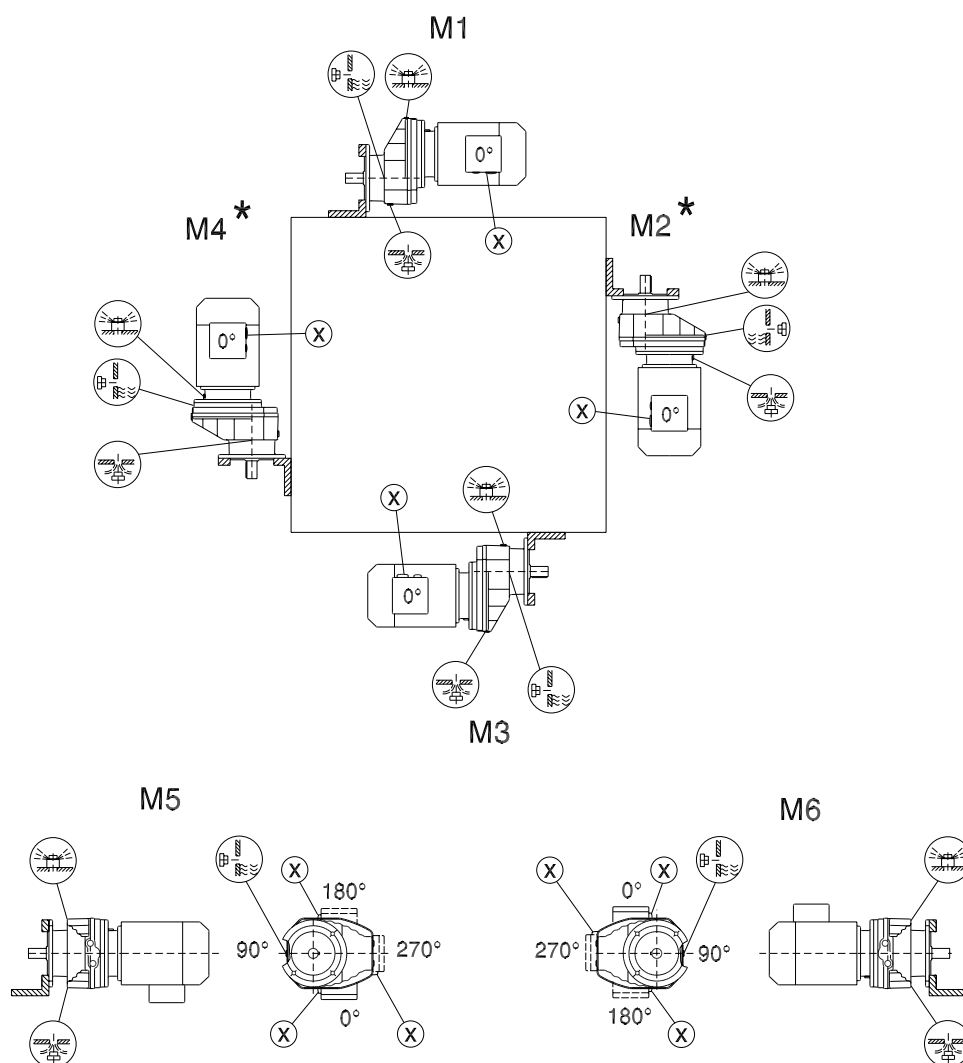
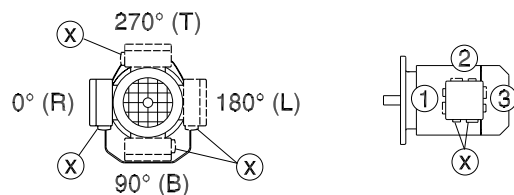
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* → page 48

RXF57-RXF107

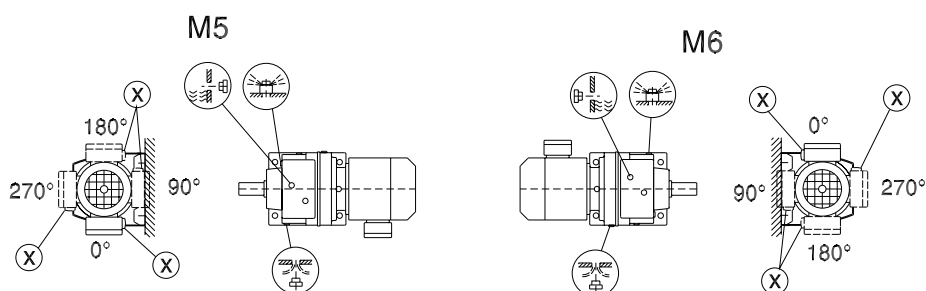
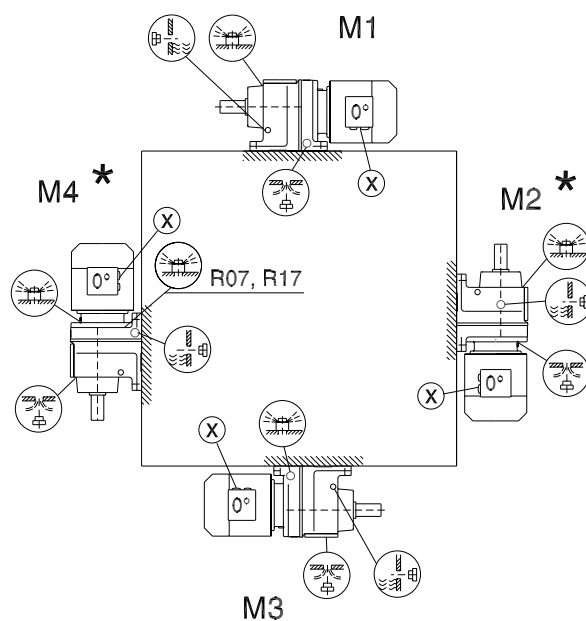
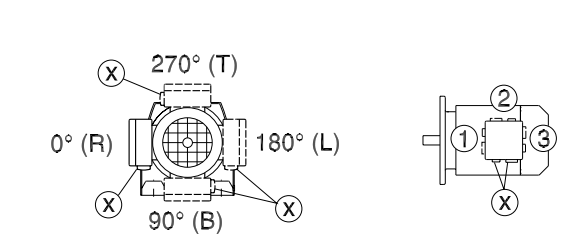
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* → page 48

R07-R167

04 040 03 00

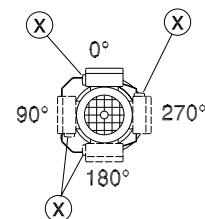
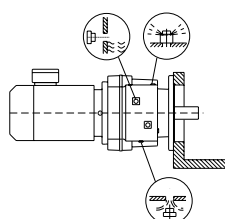
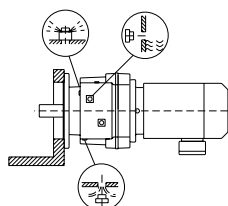
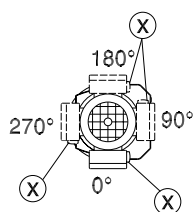
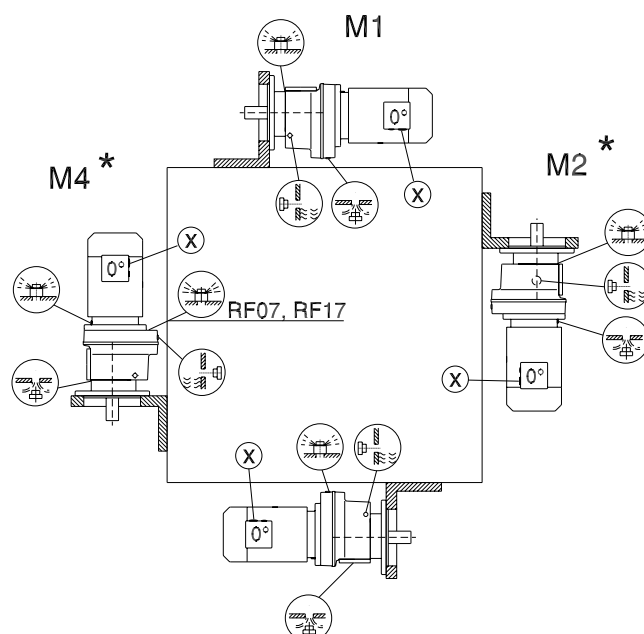
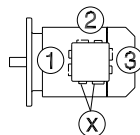
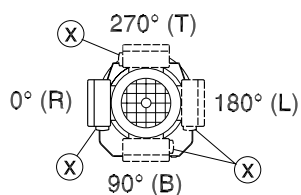


R07		M1, M2, M3, M5, M6
R17, R27		M1, M3, M5, M6
R07, R17, R27		
R47, R57		M5

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RF07-RF167

04 041 02 00

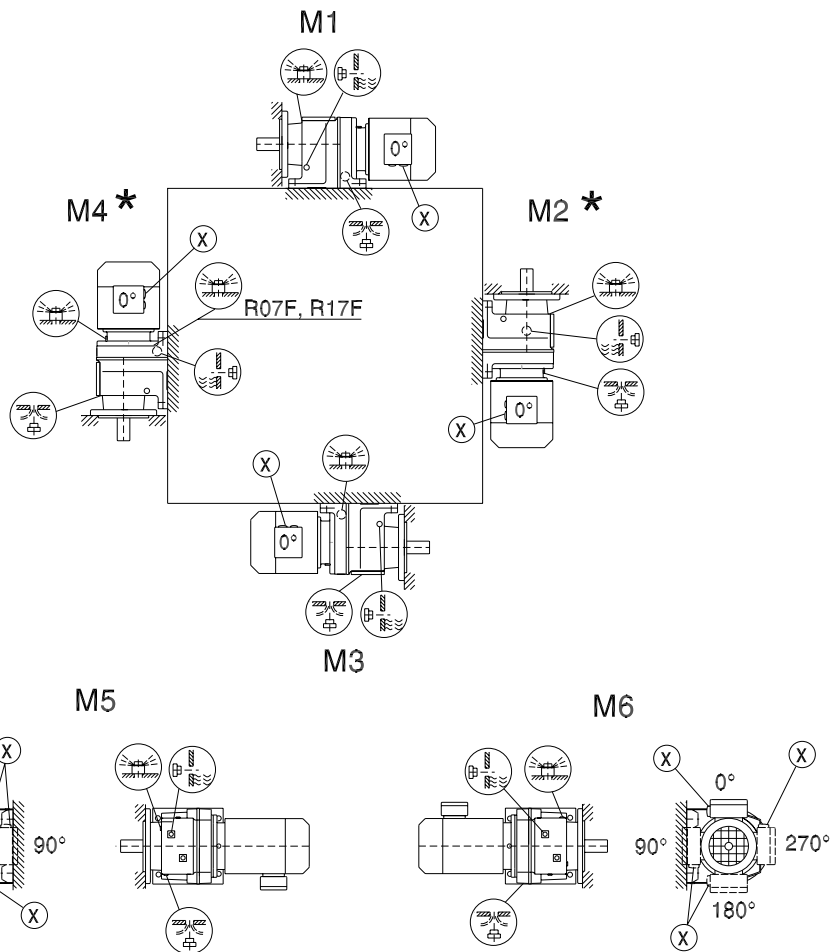
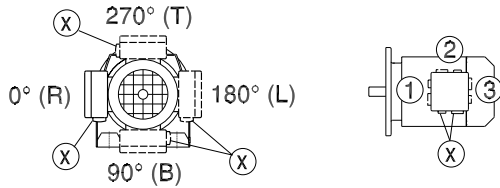


RF07		M1, M2, M3, M5, M6
RF17, RF27		M1, M3, M5, M6
RF07, RF17, RF27		
RF47, RF57		M5

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R07F-R87F

04 042 03 00



R07F		M1, M2, M3, M5, M6
R17F, R27F		M1, M3, M5, M6
R07F, R17F, R27F		
R47F, R57F		M5

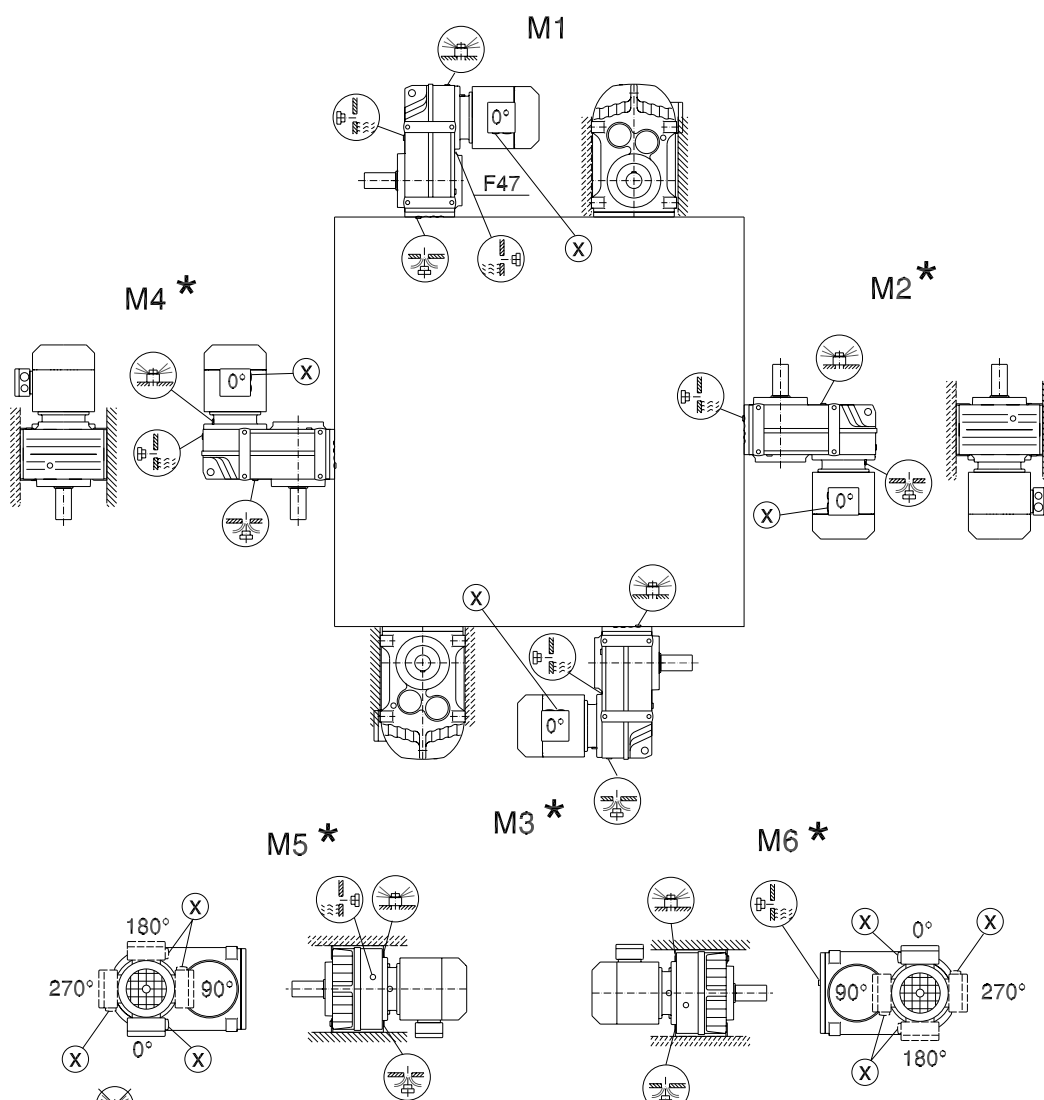
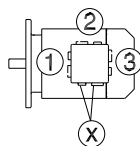
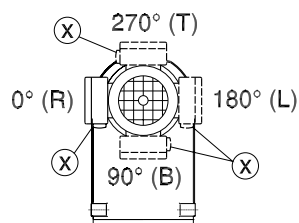
* → page 48


Important: See the information in the "Gearmotors" catalog, section "Project Planning for Gear Units/Overhung and axial loads" (page 30).

5.5 Mounting positions for parallel shaft helical gearmotors


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

42 042 02 00



F..27  M1, M3, M5, M6

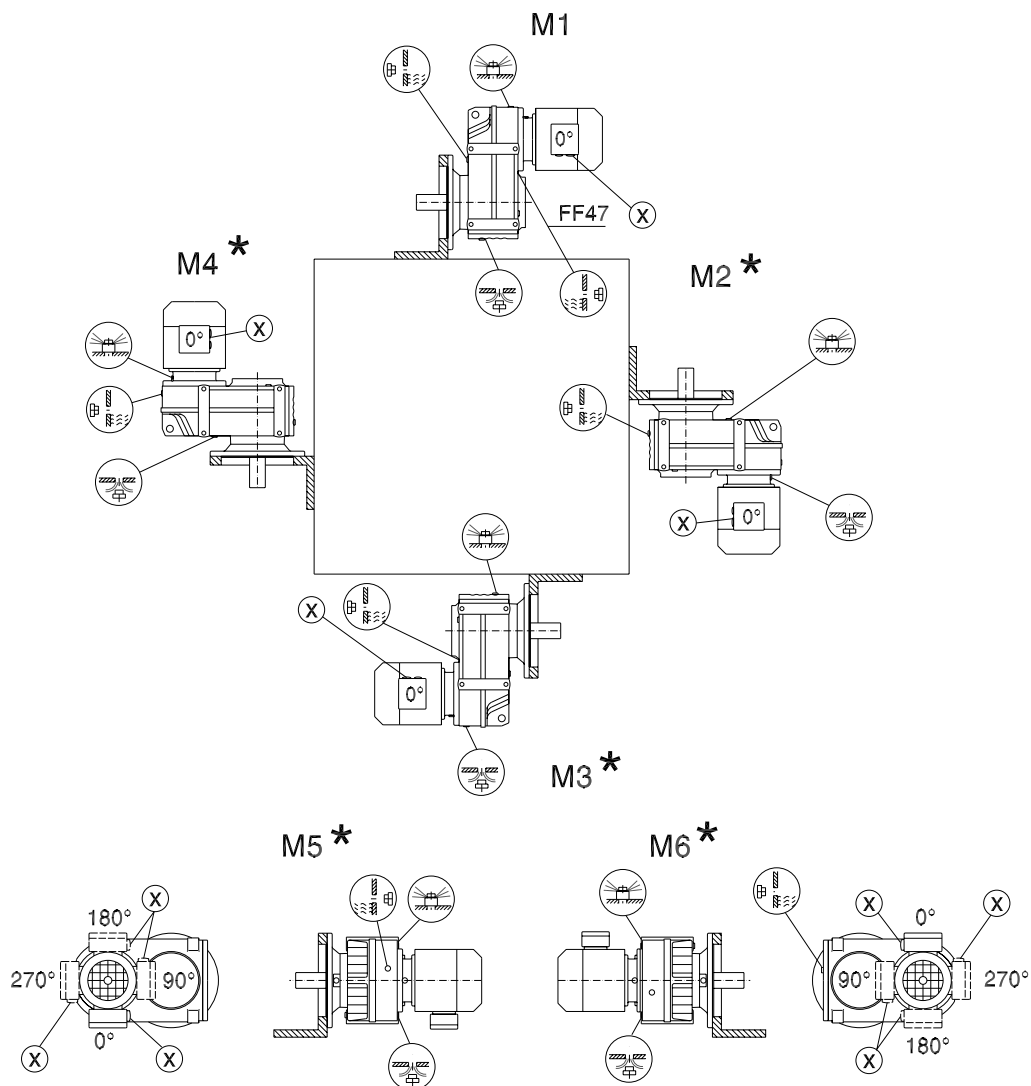
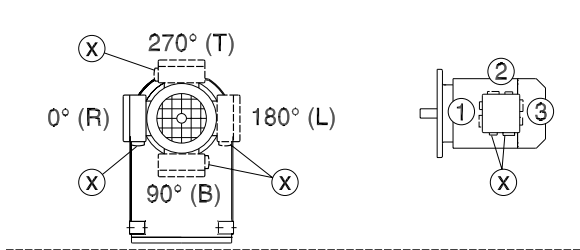
F..27  M1 - M6

F..27  M1, M3, M5, M6

* → page 48

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

42 043 02 00

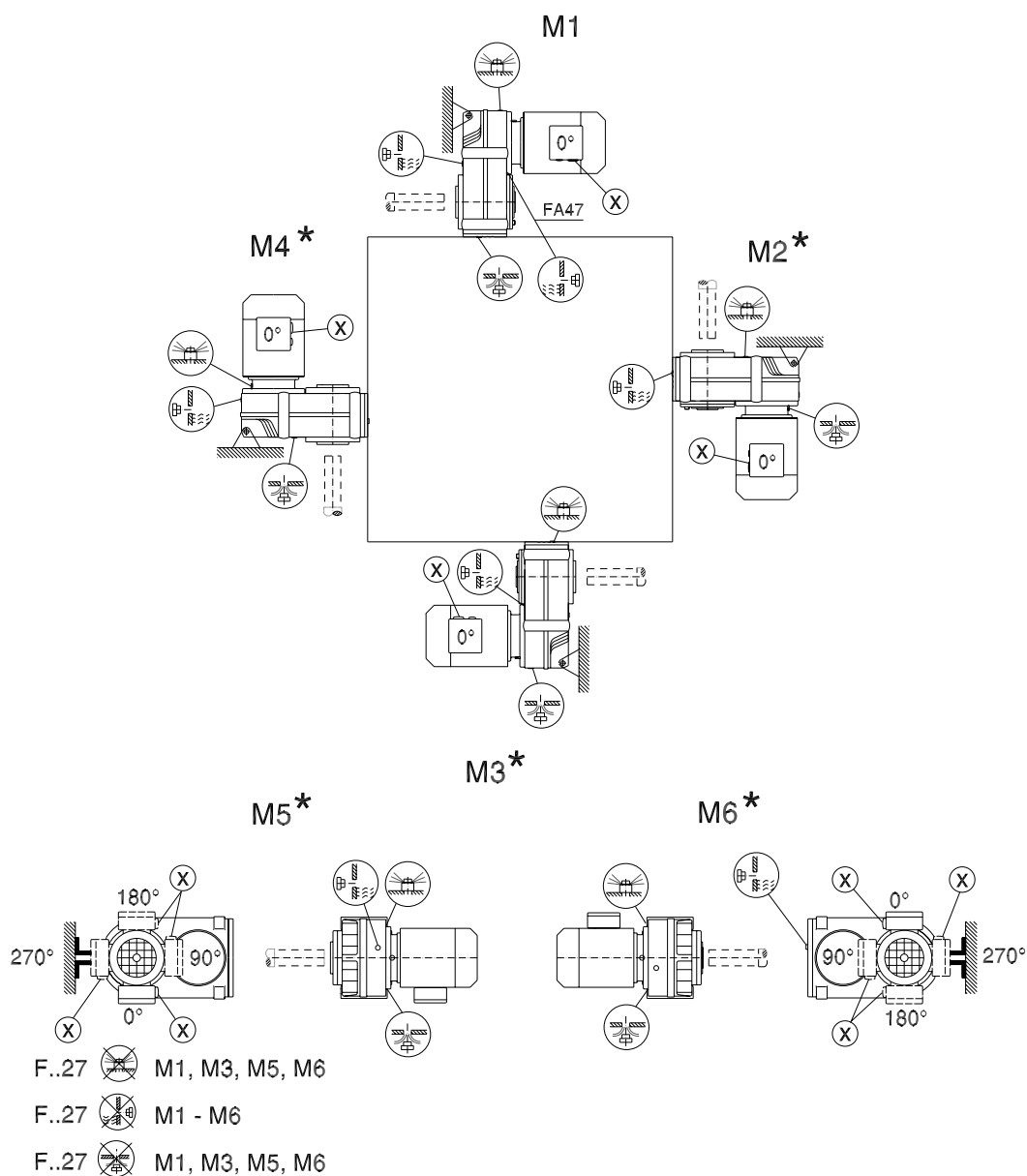
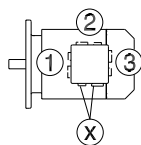
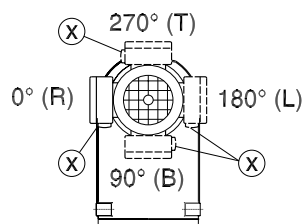


- F..27 M1, M3, M5, M6
- F..27 M1 - M6
- F..27 M1, M3, M5, M6

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

42 044 02 00

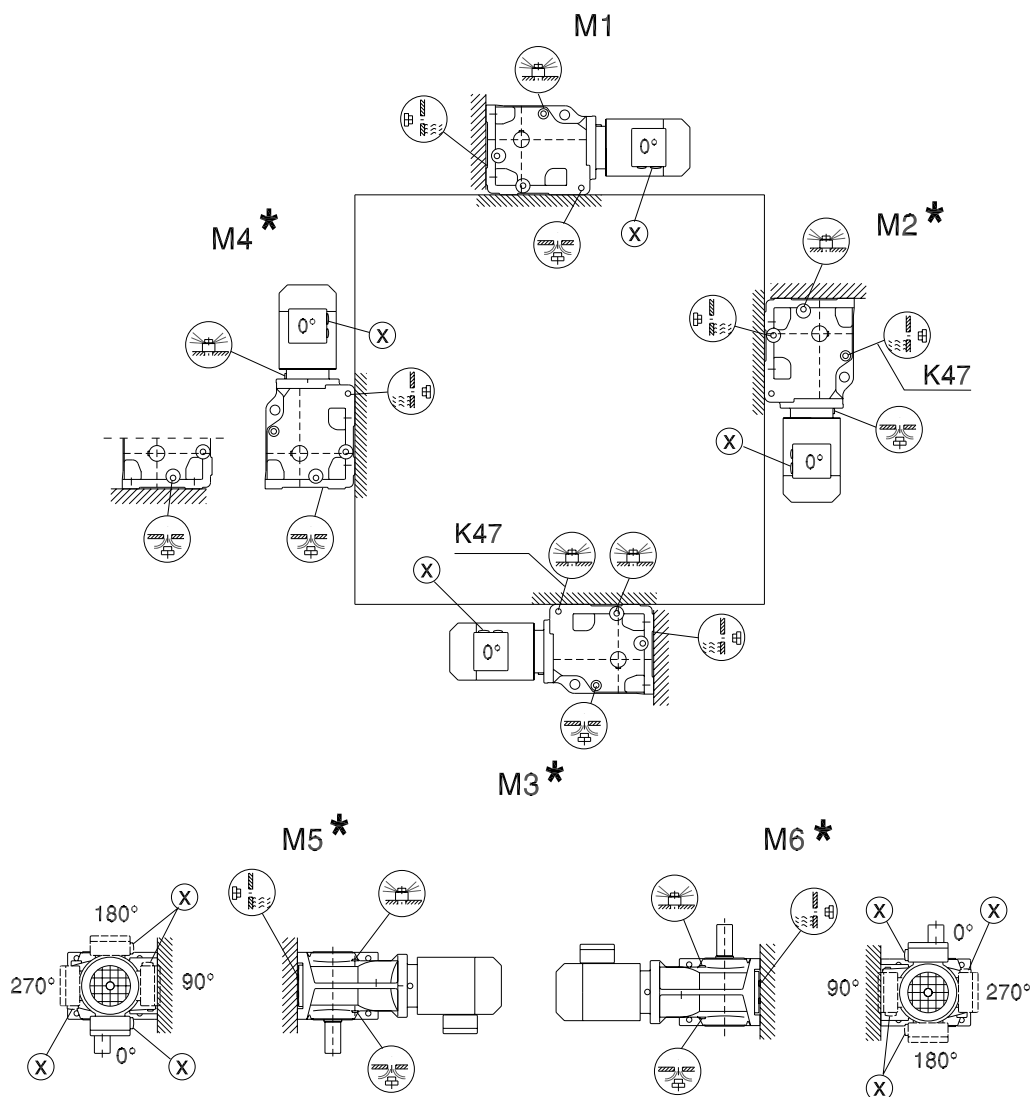
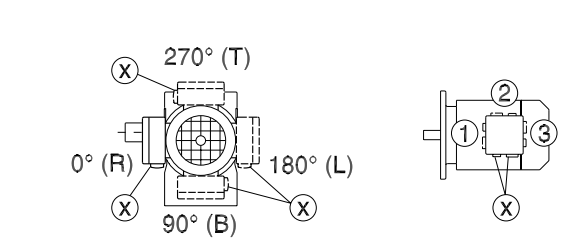


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5.6 Mounting positions for helical-bevel gearmotors

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

34 025 02 00

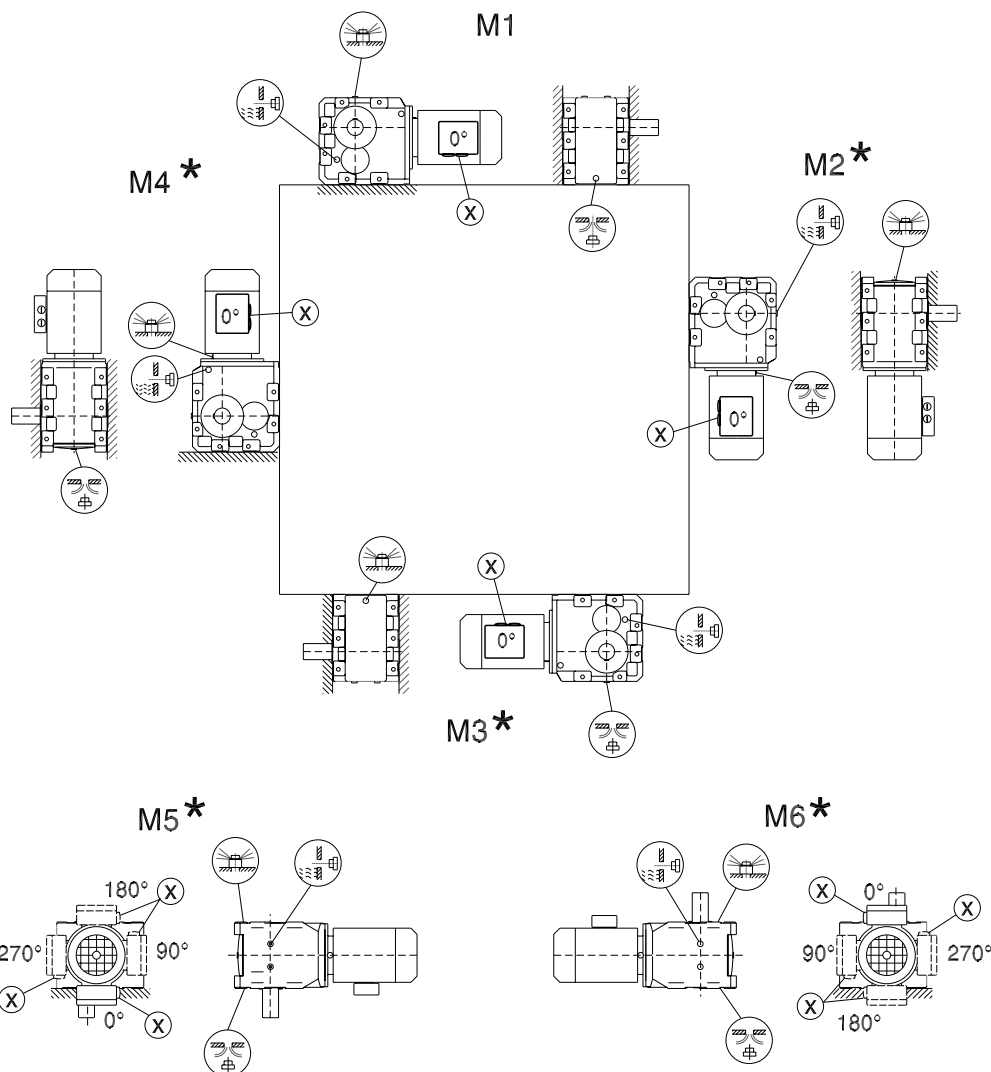
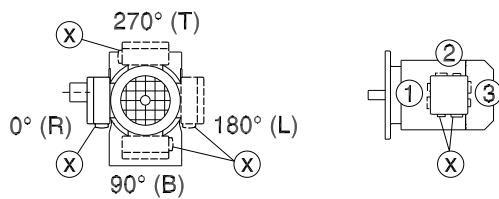


* → page 48


Important: See the  information in the "Gearmotors" catalog, section "Project Planning for Gear Units/Overhung and axial loads" (page 30).

K167-187, KH167B-187B

34 026 02 00

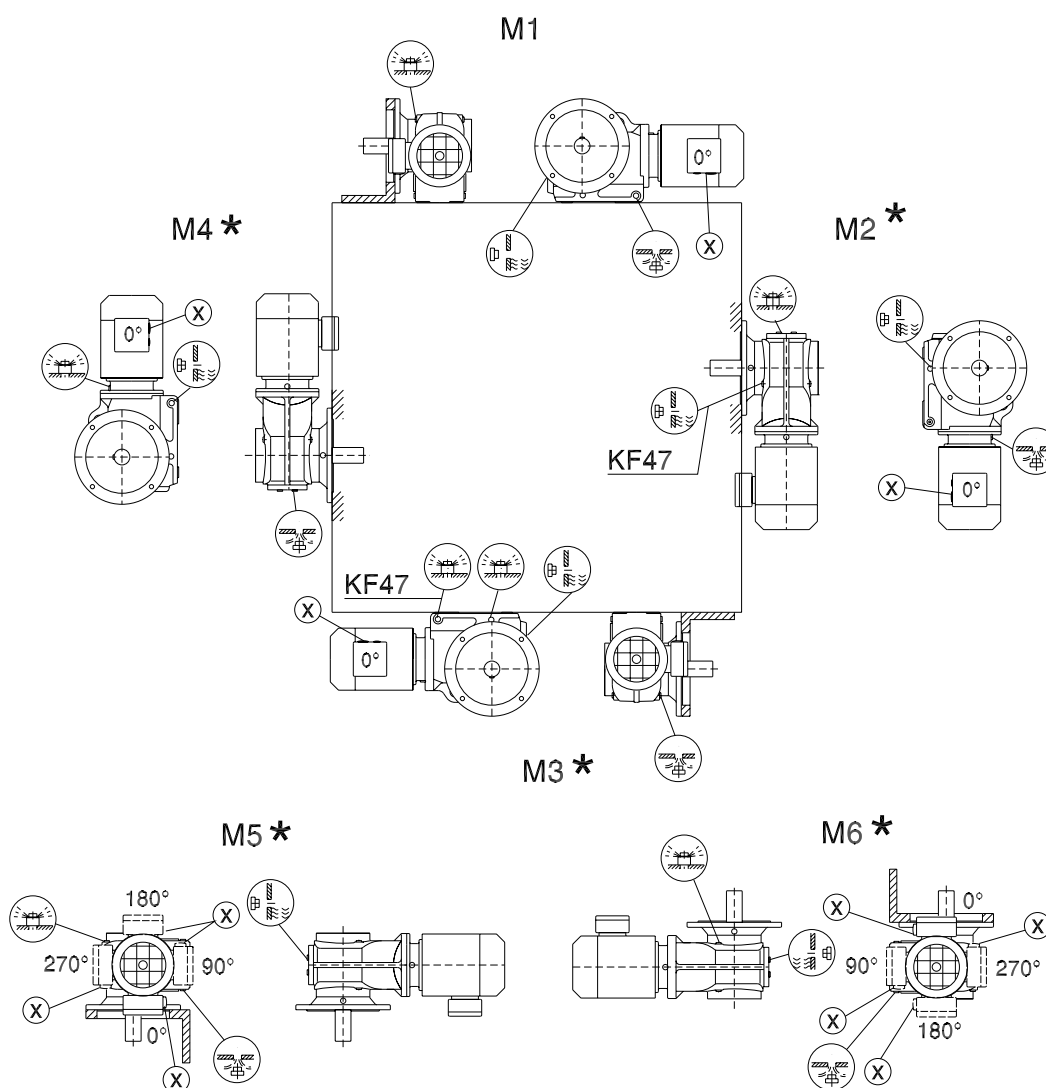
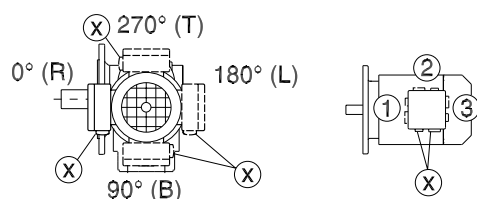


* → page 48

Important: See the  information in the "Gearmotors" catalog, section "Project Planning for Gear Units/Overhung and axial loads" (page 36).

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

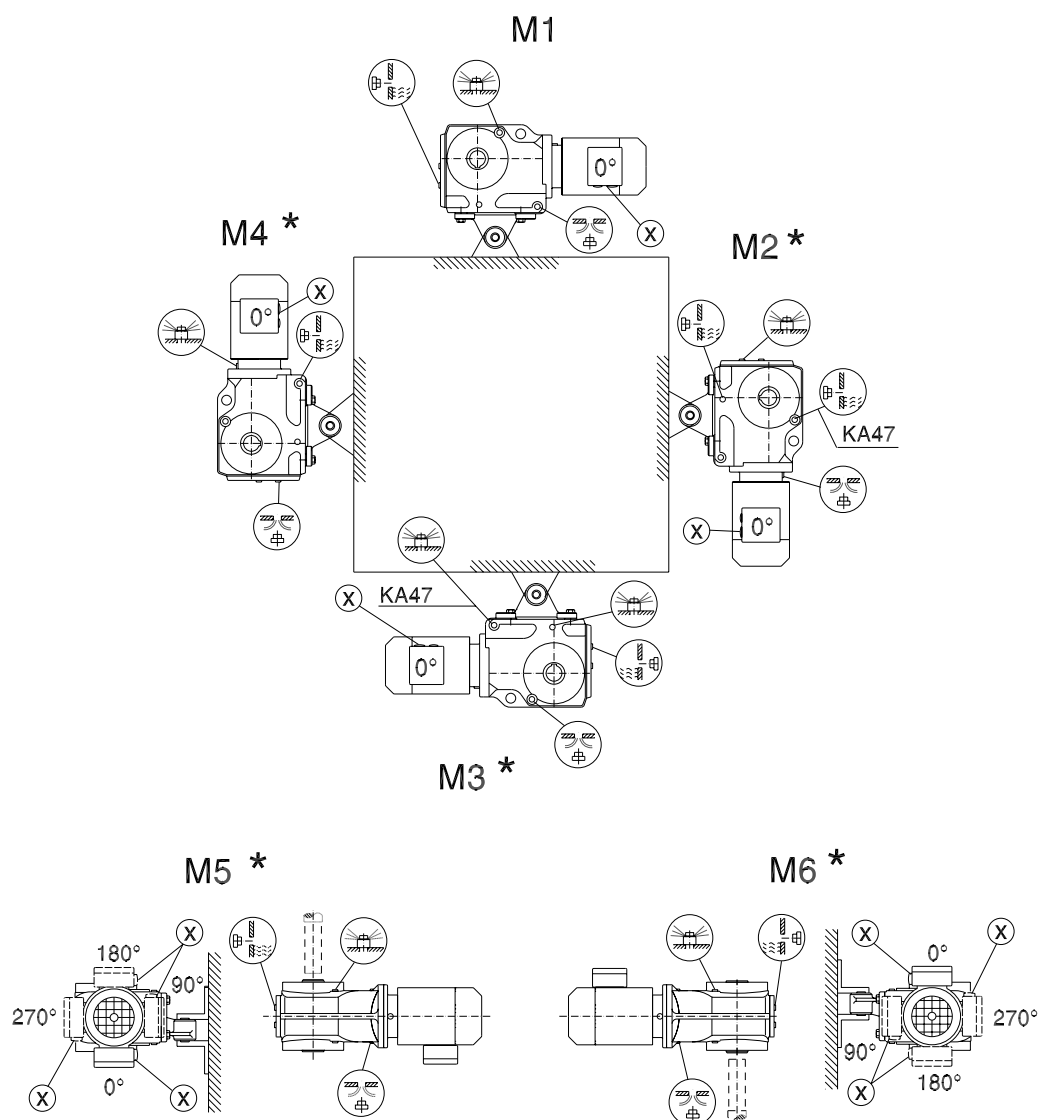
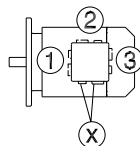
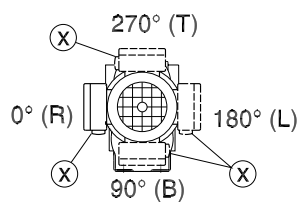
34 027 02 00



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

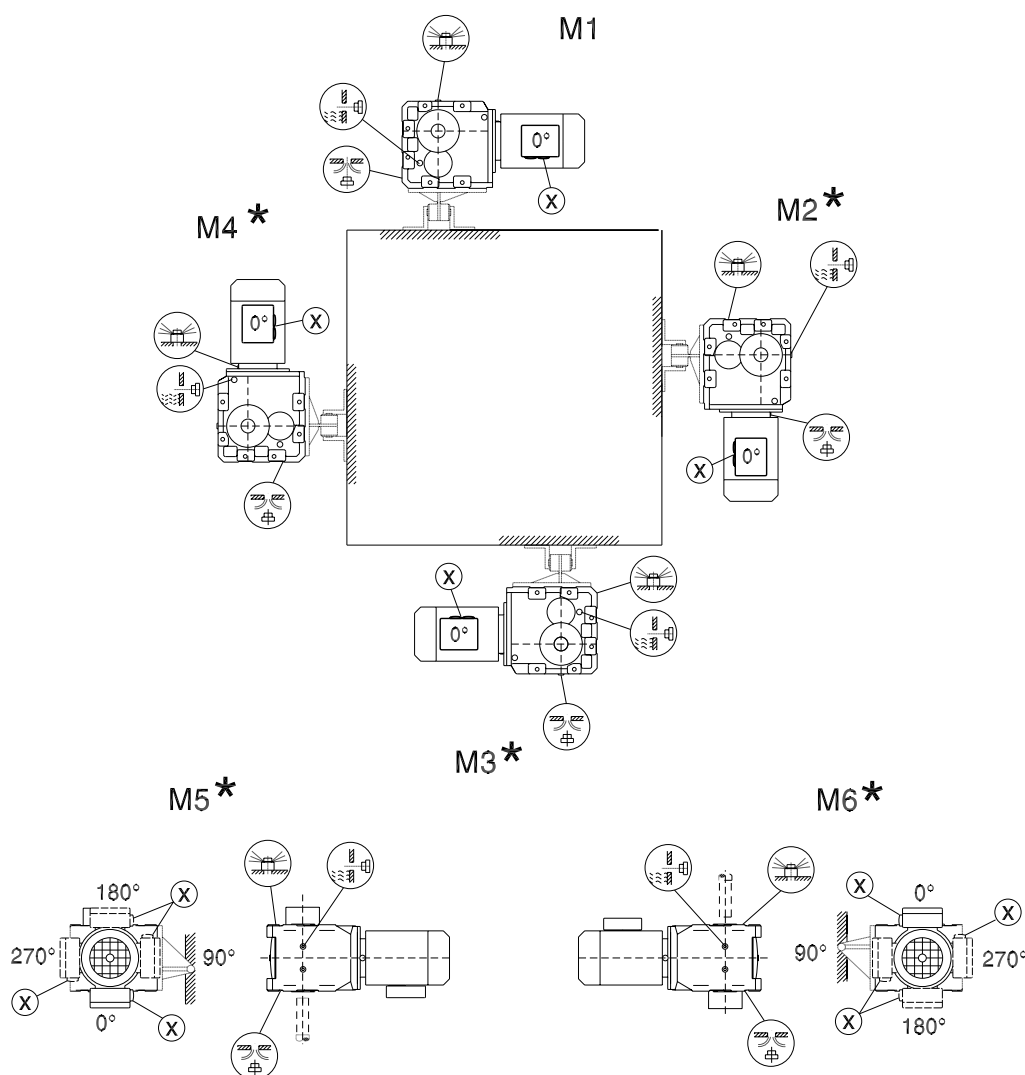
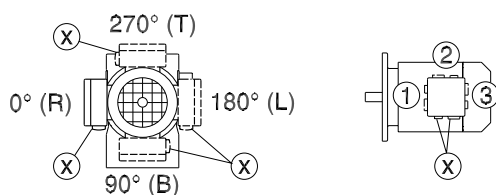
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KH167-187

39 026 03 00

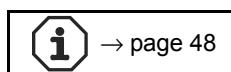
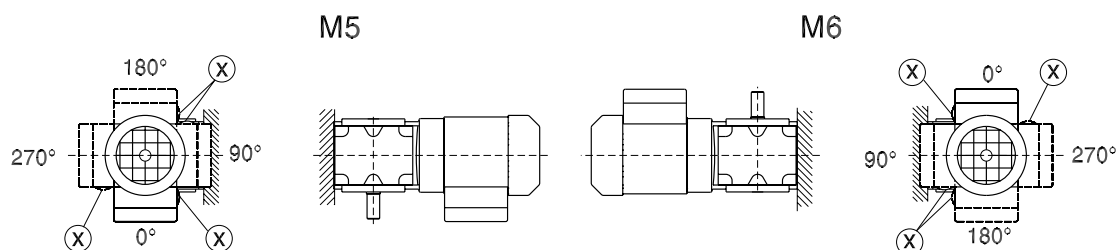
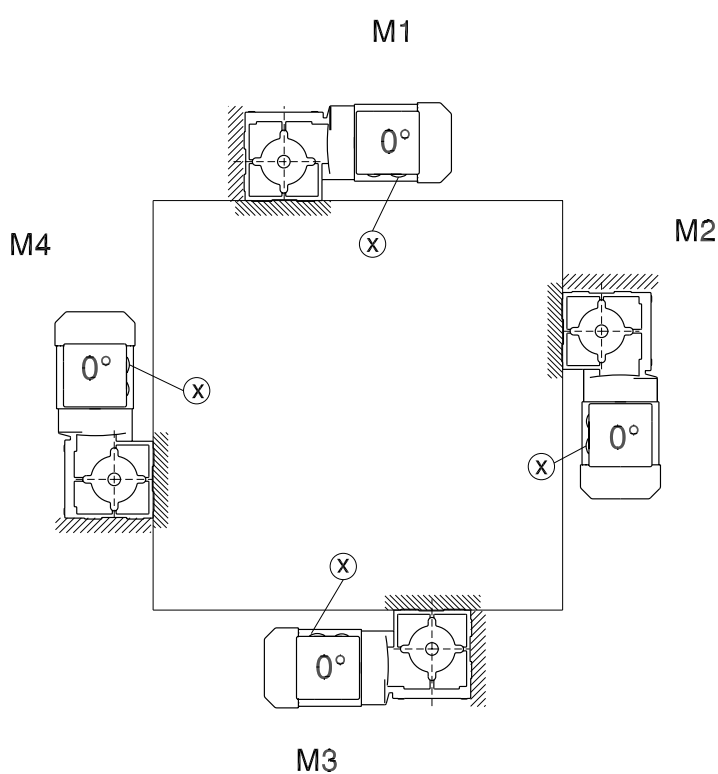
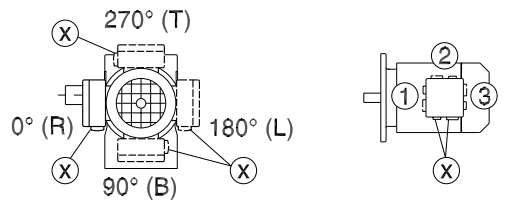


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5.7 Mounting positions for Spiroplan® gearmotors

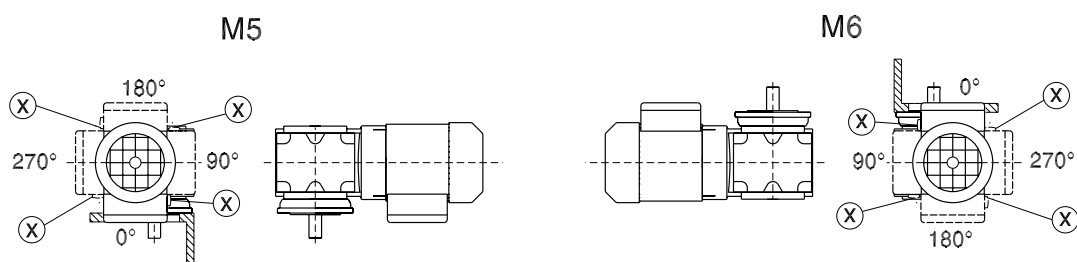
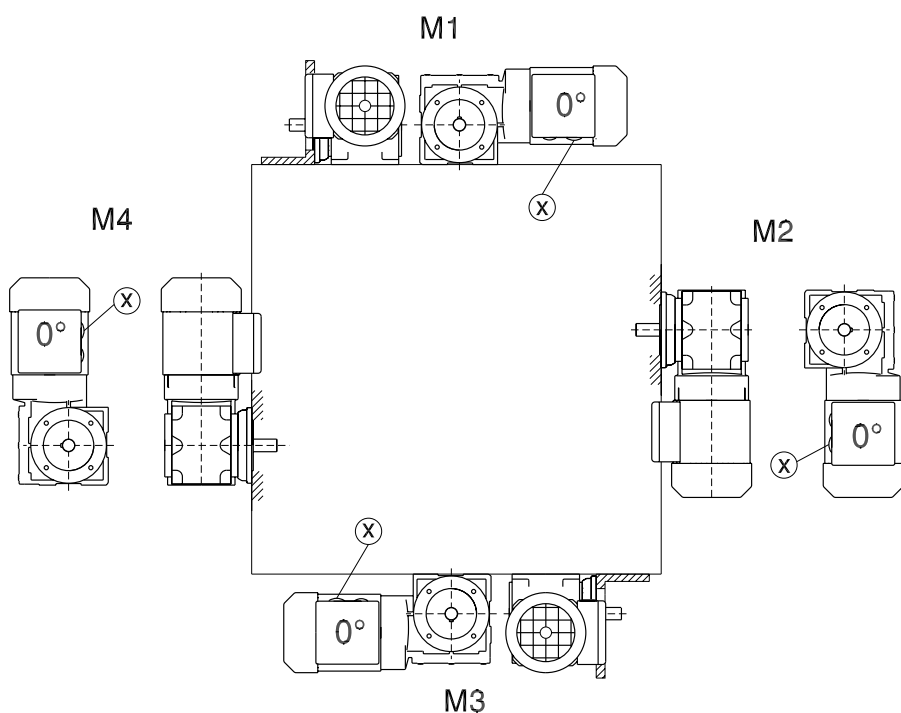
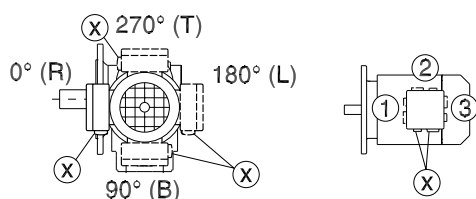
W10-30

20 001 00 02



WF10-30

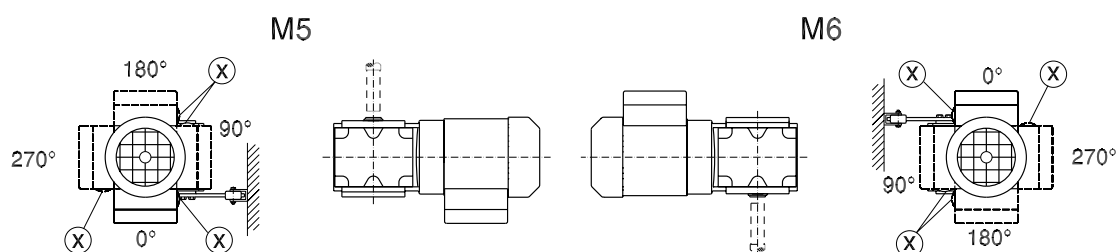
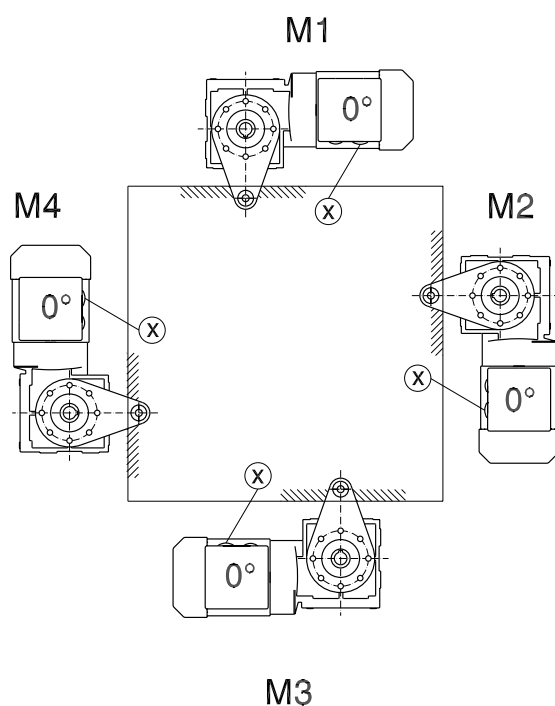
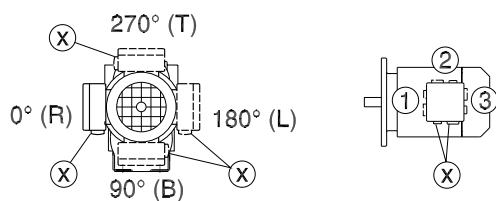
20 002 00 02



i → page 48

WA10-30

20 003 00 02

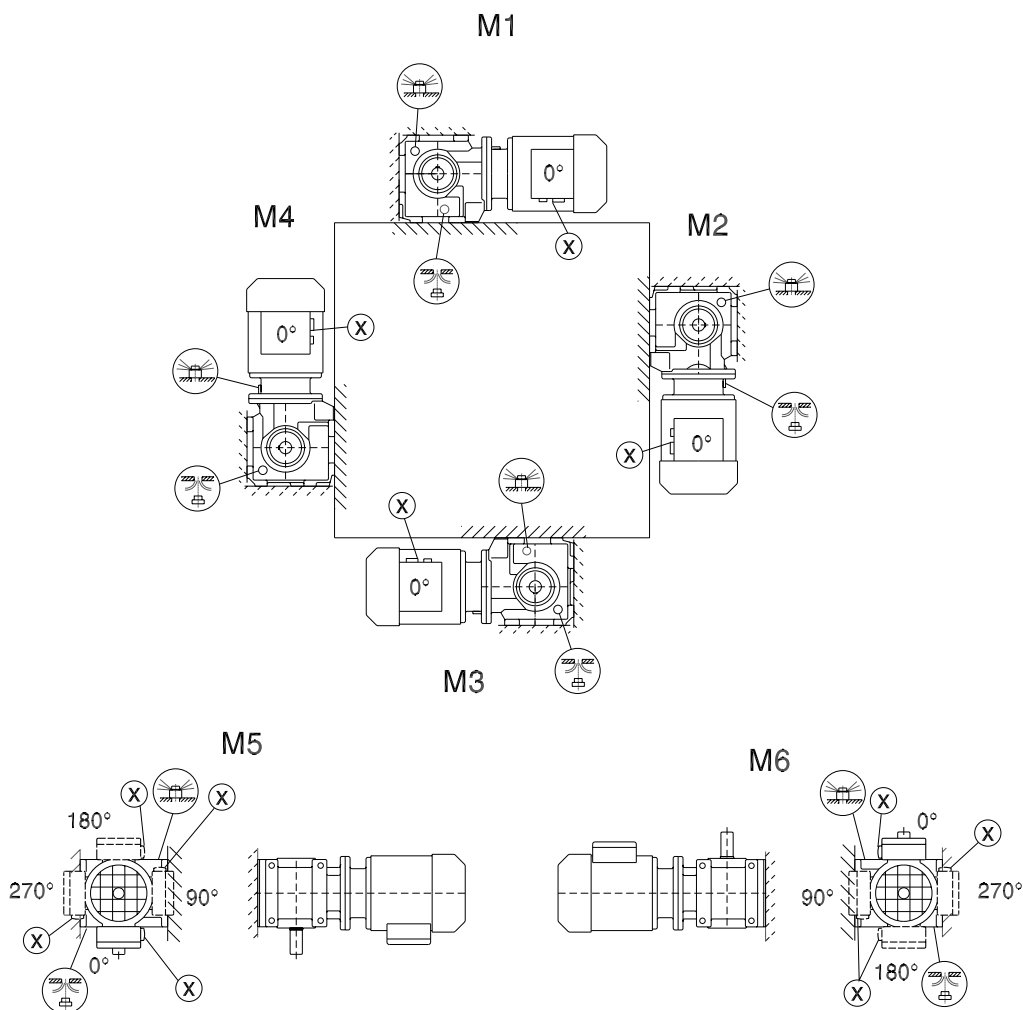
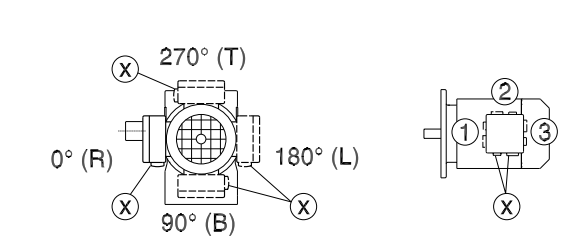


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5.8 Mounting positions for helical-worm gearmotors

S37

05 025 02 00

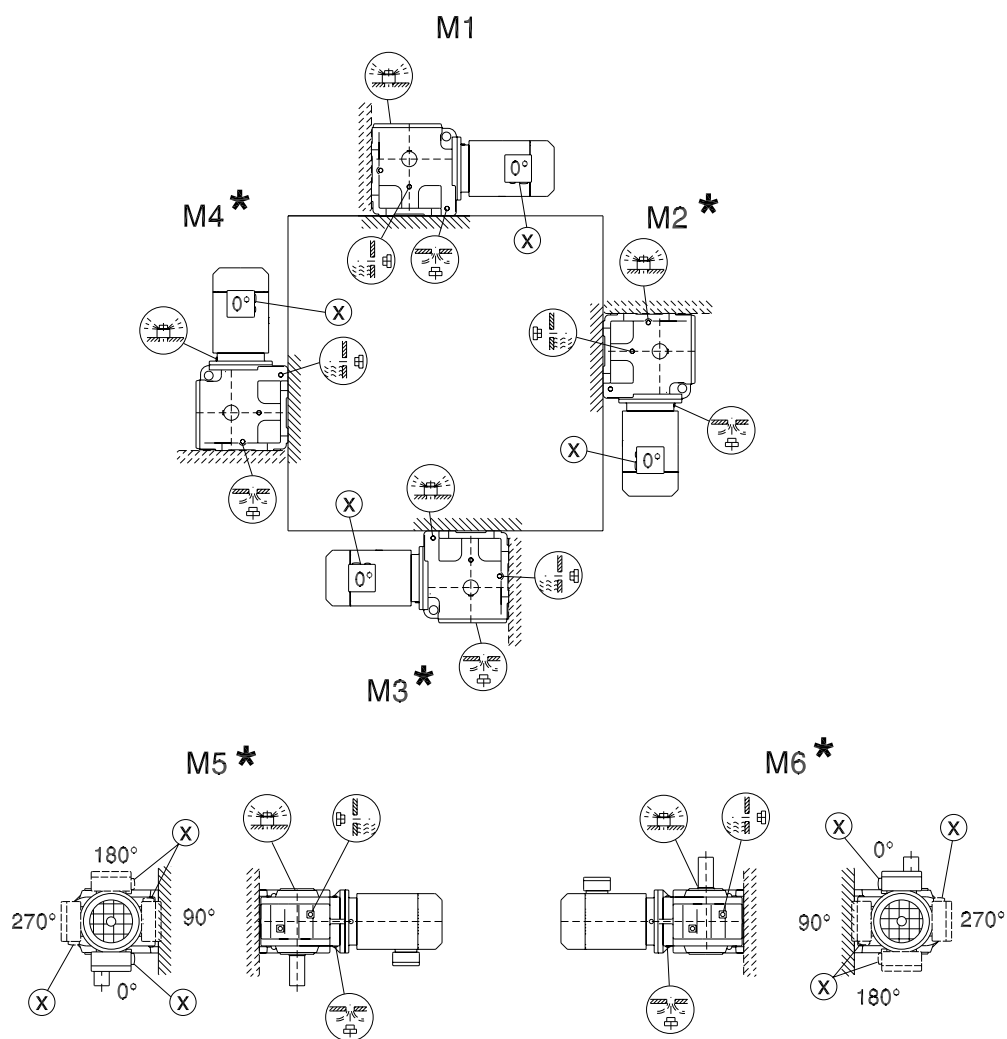
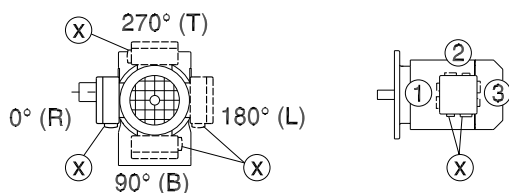


* → page 48


Important: See the  information in the "Gearmotors" catalog, section "Project Planning for Gear Units/Overhung and axial loads" (page 30).

S47-S97

05 026 02 00

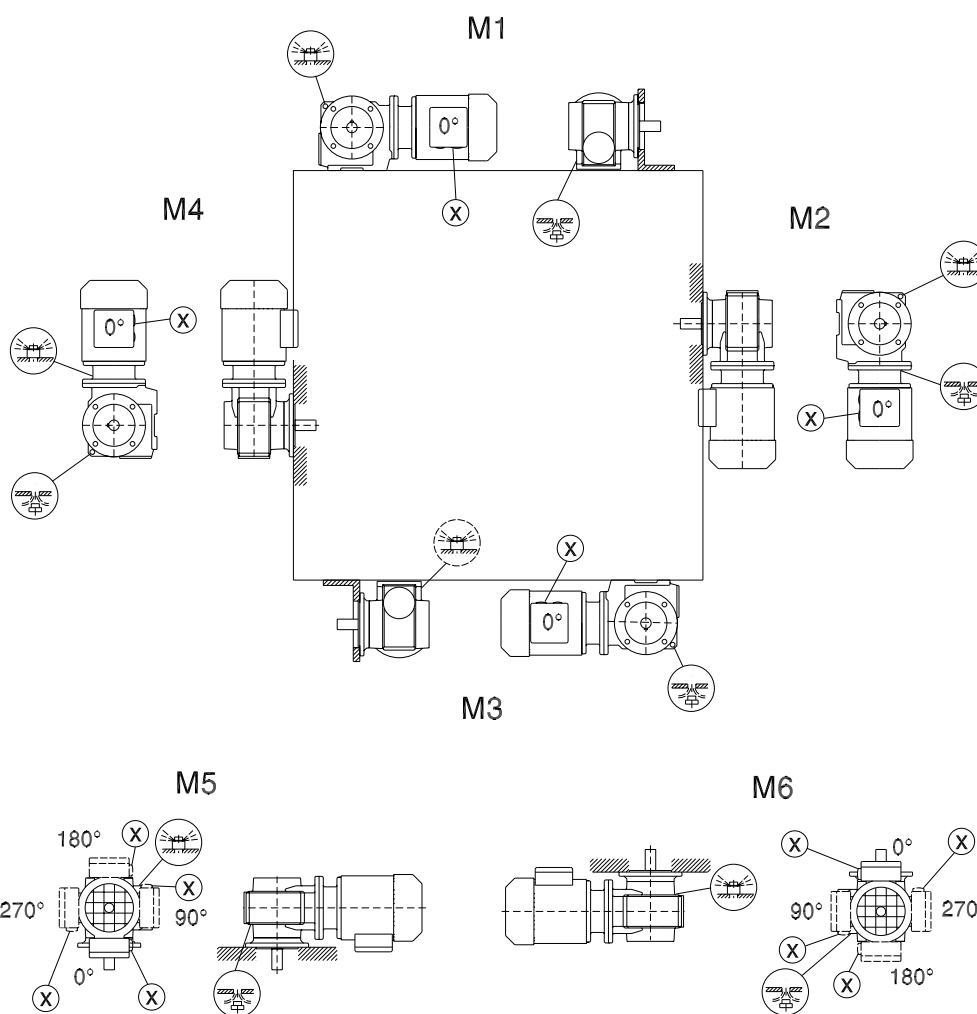
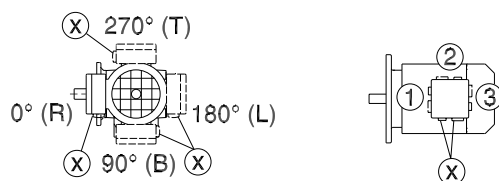


* → page 48

Important: See the  information in the "Gearmotors" catalog, section "Project Planning for Gear Units/Overhung and axial loads" (page 36).

SF/SAF/SHF37

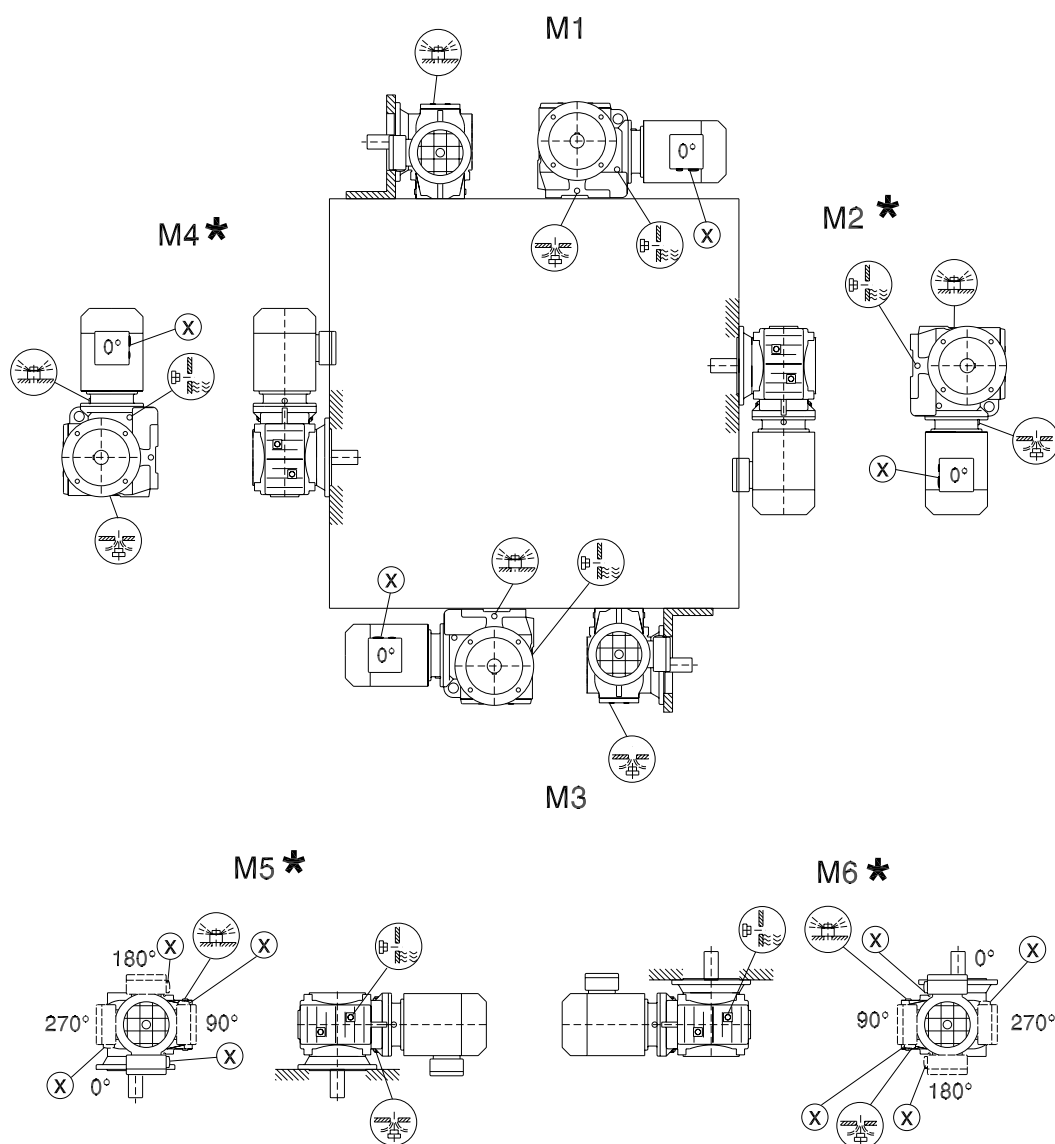
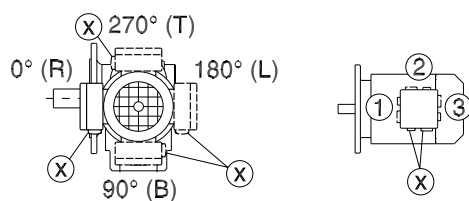
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SF/SAF/SHF/SAZ/SHZ47-97

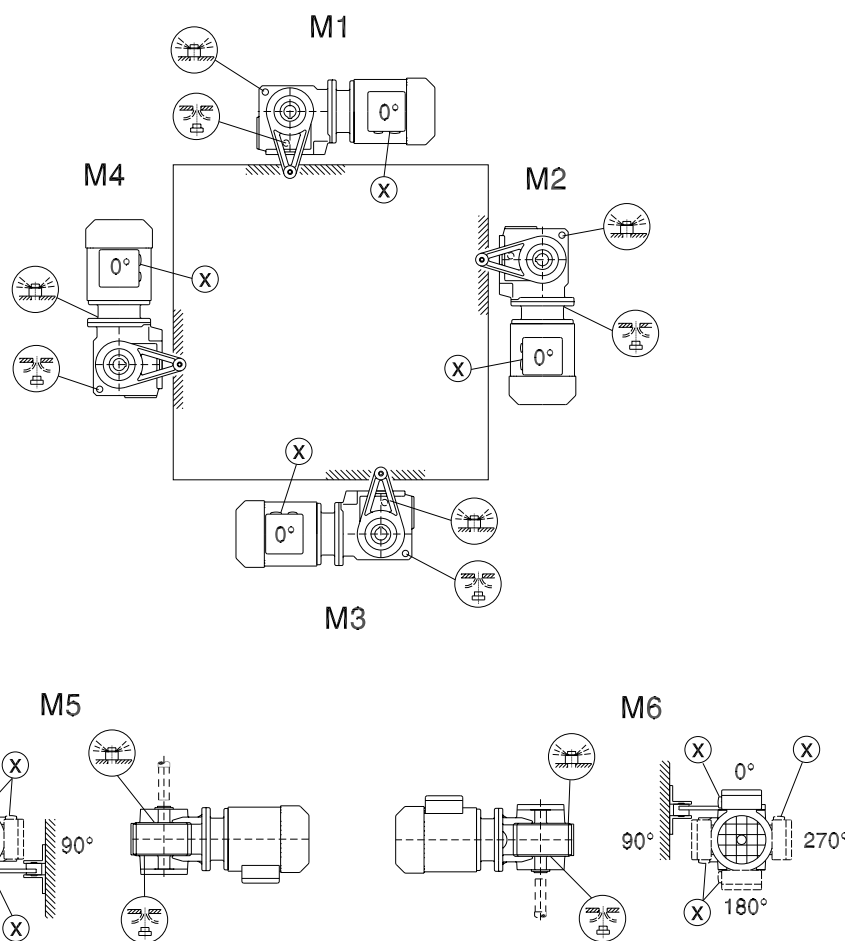
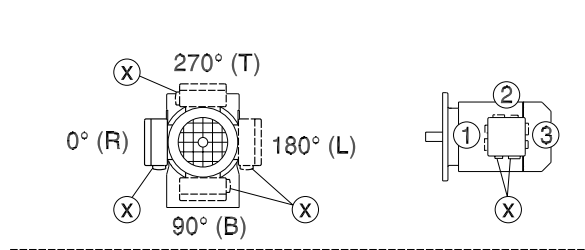
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* → page 48

SA/SH/ST37

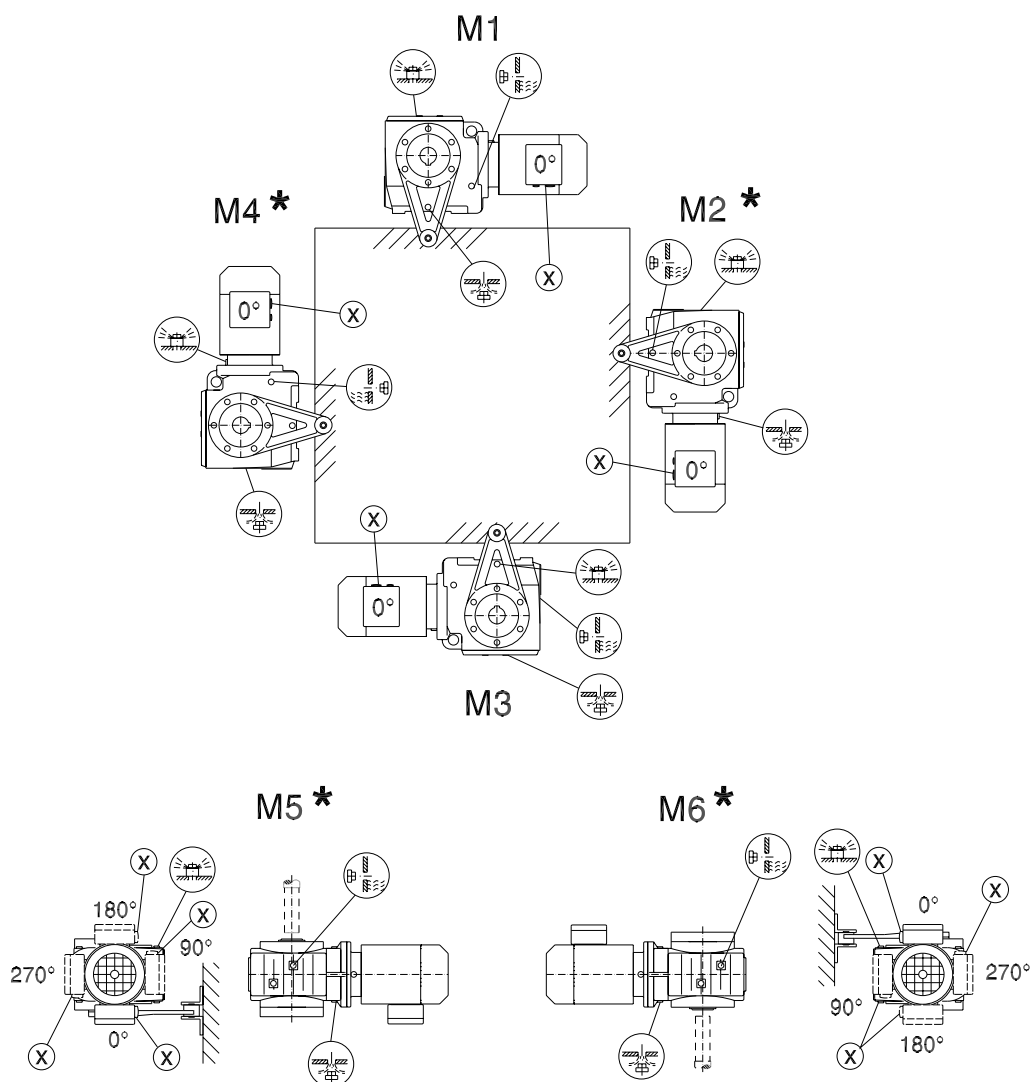
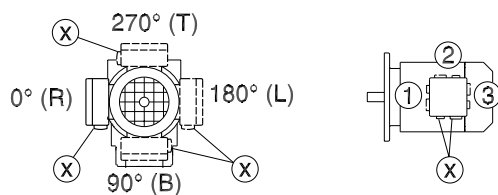
28 020 02 00



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SA/SH/ST47-97

28 021 02 00



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