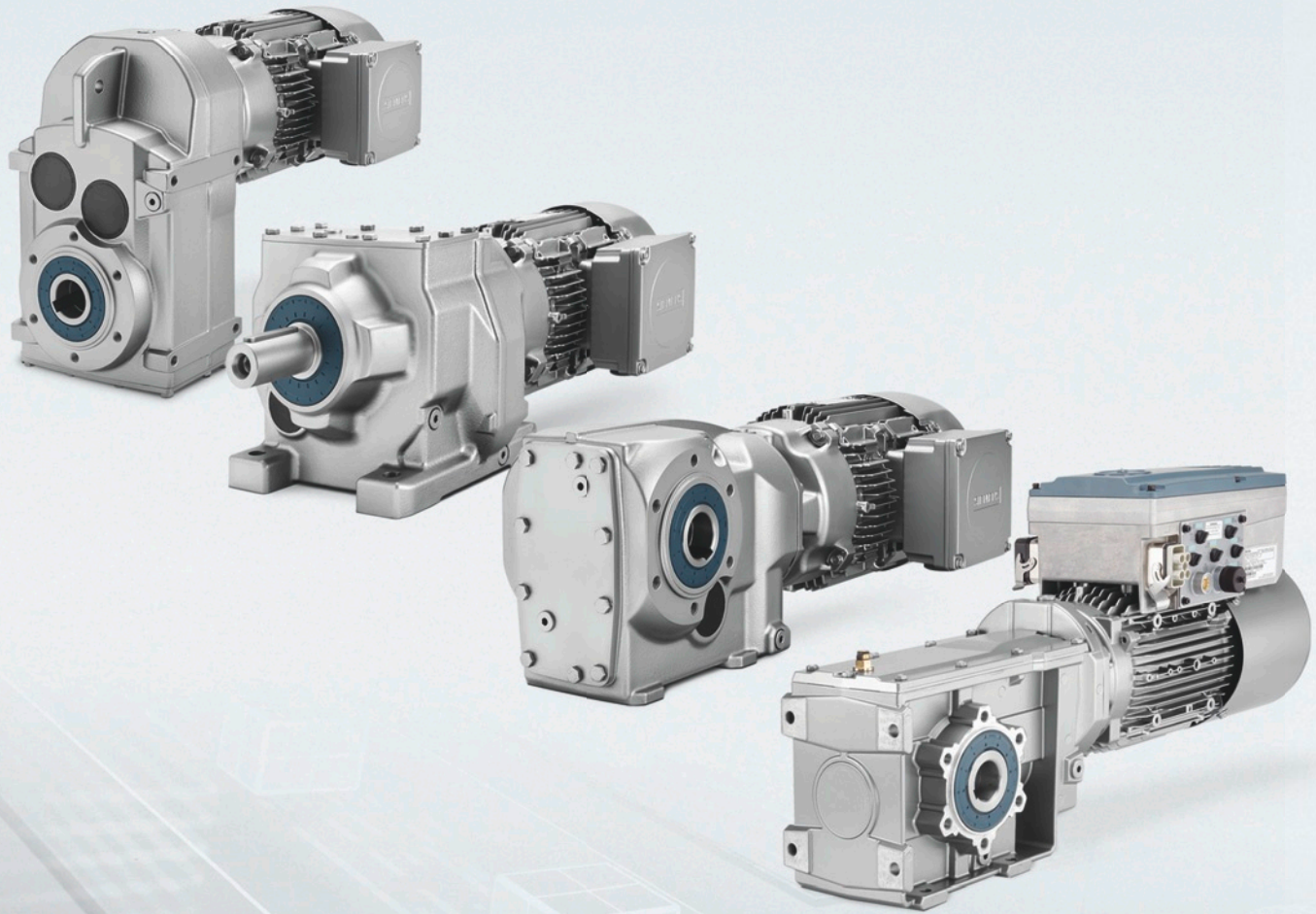


SIEMENS



Motion Control

# SIMOGEAR Geared Motors

Helical, parallel shaft, bevel, helical worm  
and worm geared motors



product  
design award

2013

Catalog  
MD 50.1

Edition  
2017

[siemens.com/gearedmotors](http://siemens.com/gearedmotors)

## SIMOGEAR bevel geared motor B

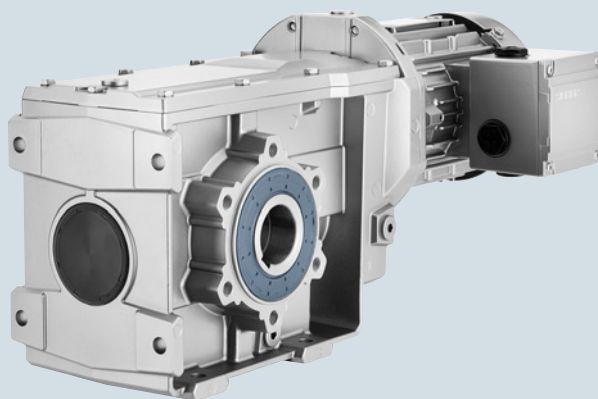


Fig. 5/1 Bevel geared motor B

Gearbox designation	Number of sizes	Maximum output torque	Transmission ratio	Maximum motor power
		$T_{2N}$ Nm	$i$ -	$P_1$ kW
B19 ... B49 (2-stage)	4	50 ... 450	3.5 ... 59	7.5

## SIMOGEAR bevel geared motor K

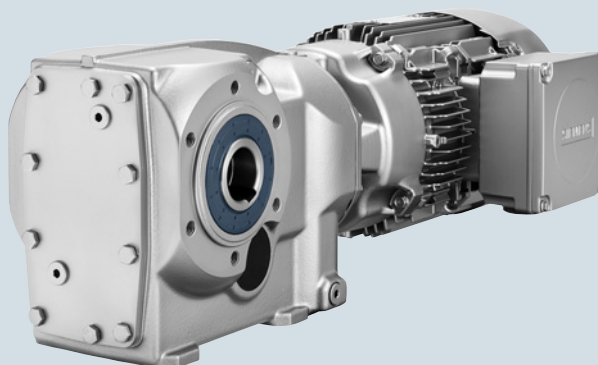


Fig. 5/2 Bevel geared motor K

Gearbox designation	Number of sizes	Maximum output torque	Transmission ratio	Maximum motor power
		$T_{2N}$ Nm	$i$ -	$P_1$ kW
K39 ... K189 (3-stage)	10	150 ... 19 500	5.7 ... 237	55
K.39-D/Z19 ... K189-DZ69 (5-stage and 6-stage)	10	220 ... 19 500	170 ... 14 900	7.5

SIMOGEAR bevel geared motors are available in the following versions:

Transmission stages

- 2-stage or 3-stage bevel geared motors
- 5-stage or 6-stage bevel geared motors for very low output speeds

Versions

- Shaft-mounted design
- Flange-mounted design
- Design with integrated housing flange
- Foot-mounted design

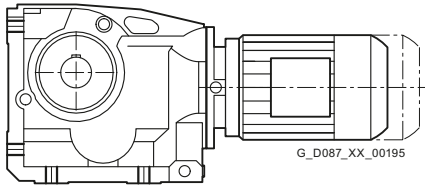
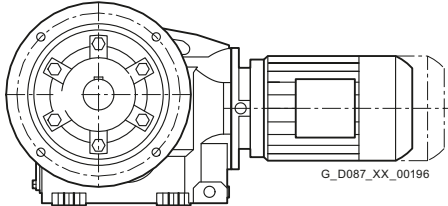
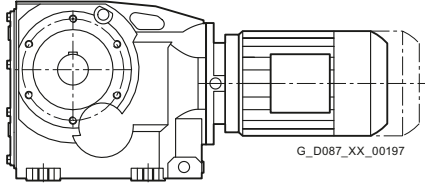
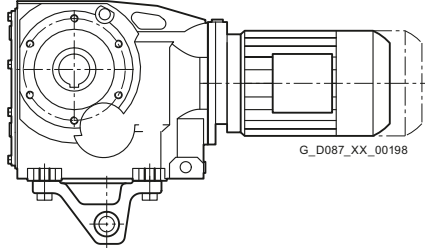
Mounting

- Hollow shaft design with feather key
- Hollow shaft design with splined shaft
- Hollow shaft design with shrink disk
- Hollow shaft design with SIMOLOC assembly system
- Solid shaft design with and without feather key

For 2-stage bevel gearboxes B, the torque arm is supplied loose to enable it to be mounted as required on site. The position of the torque arm can be freely selected.

## Dimensional drawing overview

Information about dimensional drawings can be found in chapter [Introduction on page 1/21](#).

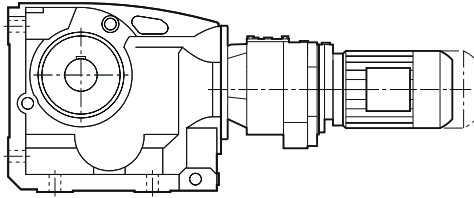
Design	Size	Dimensional drawing on page
<b>Foot-mounted design</b>		
	B..19	5/75
	B..29	5/79
	B..39	5/83
	B..49	5/87
	K..39	5/91
	K..49	5/95
	K..69	5/99
	K..79	5/103
	K..89	5/107
	K..109	5/111
	K..129	5/115
	K..149	5/119
	K..169	5/123
	K..189	5/127
<b>Flange-mounted design</b>		
	B.F.19	5/76
	B.F.29	5/80
	B.F.39	5/84
	B.F.49	5/88
	K.F.39	5/92
	K.F.49	5/96
	K.F.69	5/100
	K.F.79	5/104
	K.F.89	5/108
	K.F.109	5/112
	K.F.129	5/116
	K.F.149	5/120
	K.F.169	5/124
	K.F.189	5/128
<b>Housing flange design</b>		
	B.Z.19	5/77
	B.Z.29	5/81
	B.Z.39	5/85
	B.Z.49	5/89
	K.Z.39	5/93
	K.Z.49	5/97
	K.Z.69	5/101
	K.Z.79	5/105
	K.Z.89	5/109
	K.Z.109	5/113
	K.Z.129	5/117
	K.Z.149	5/121
	K.Z.169	5/125
	K.Z.189	5/129
<b>Shaft-mounted design</b>		
	BAD.19	5/78
	BAD.29	5/82
	BAD.39	5/86
	BAD.49	5/90
	KAD.39	5/94
	KAD.49	5/98
	KAD.69	5/102
	KAD.79	5/106
	KAD.89	5/110
	KAD.109	5/114
	KAD.129	5/118
	KAD.149	5/122
	KAD.169	5/126
	KAD.189	5/130

**Dimensional drawing overview** (continued)

Design	Size	Dimensional drawing on page
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**Bevel tandem geared motors**

K.39-D/Z19 ... K.189-D/Z69 5/131



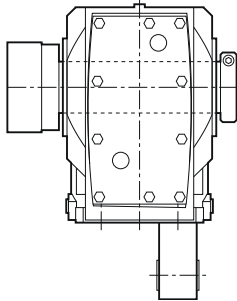
**Additional versions and options**

*SIMOLOC assembly system*

5

BADR29 ... BADR49 5/132 ... 5/133

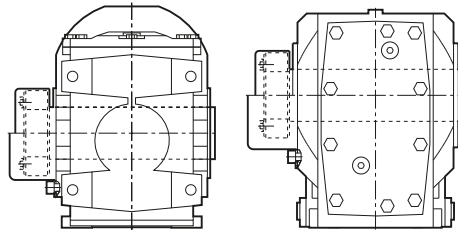
KADR39 ... BADR89



*Protection covers*

BA.19 ... KA.189

5/134 ... 5/135

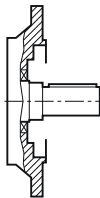


*Inner contour of the flange design*

BF19 ... KF189

5/136

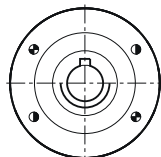
BAF19 ... KAF189



*Pin holes*

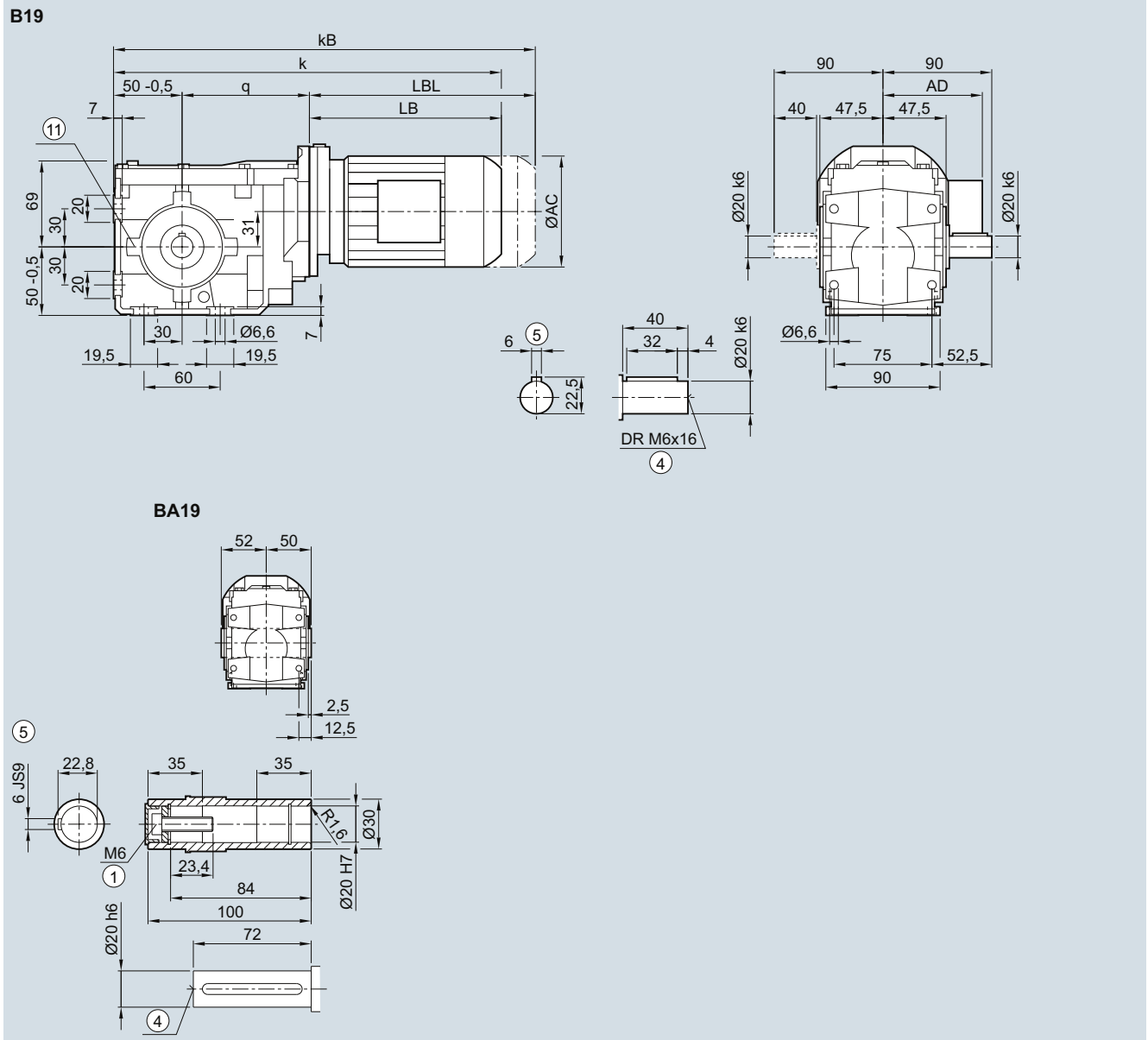
K.Z.109 and K.Z.129

5/137



**B..19 gearbox in a foot-mounted design**

**B030, BA030**



Motor	LA 63	71	71Z	LE 80	80Z
q	133.0	141.0	141.0	149.5	149.5
AC	117.8	138.8	138.8	156.3	156.3
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2
k	343.5	375.5	394.5	439.5	474.5
kB	388.0	430.5	449.5	499.5	534.5
LB	160.5	184.5	203.5	240.0	275.0
LBL	205.0	239.5	258.5	300.0	335.0

① ISO 4014

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

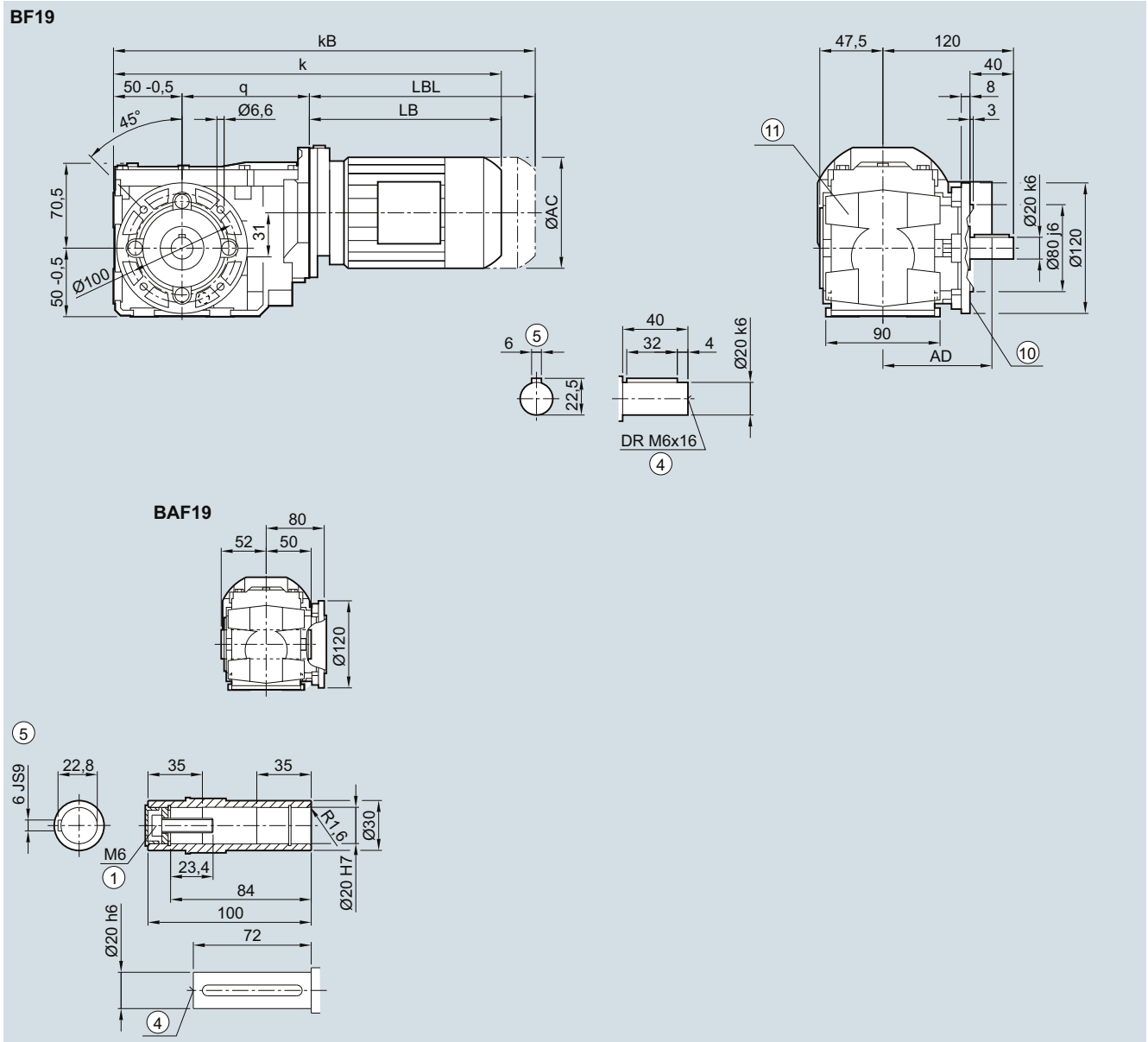
<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

⑥ Use bores only for housing flange design

**B.F.19 gearbox in a flange-mounted design**

**BF030, BAF030**

5



Motor	LA 63	71	71Z	LE 80	80Z
q	133.0	141.0	141.0	149.5	149.5
AC	117.8	138.8	138.8	156.3	156.3
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2
k	343.5	375.5	394.5	439.5	474.5
kB	388.0	430.5	449.5	499.5	534.5
LB	160.5	184.5	203.5	240.0	275.0
LBL	205.0	239.5	258.5	300.0	335.0

① ISO 4014

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

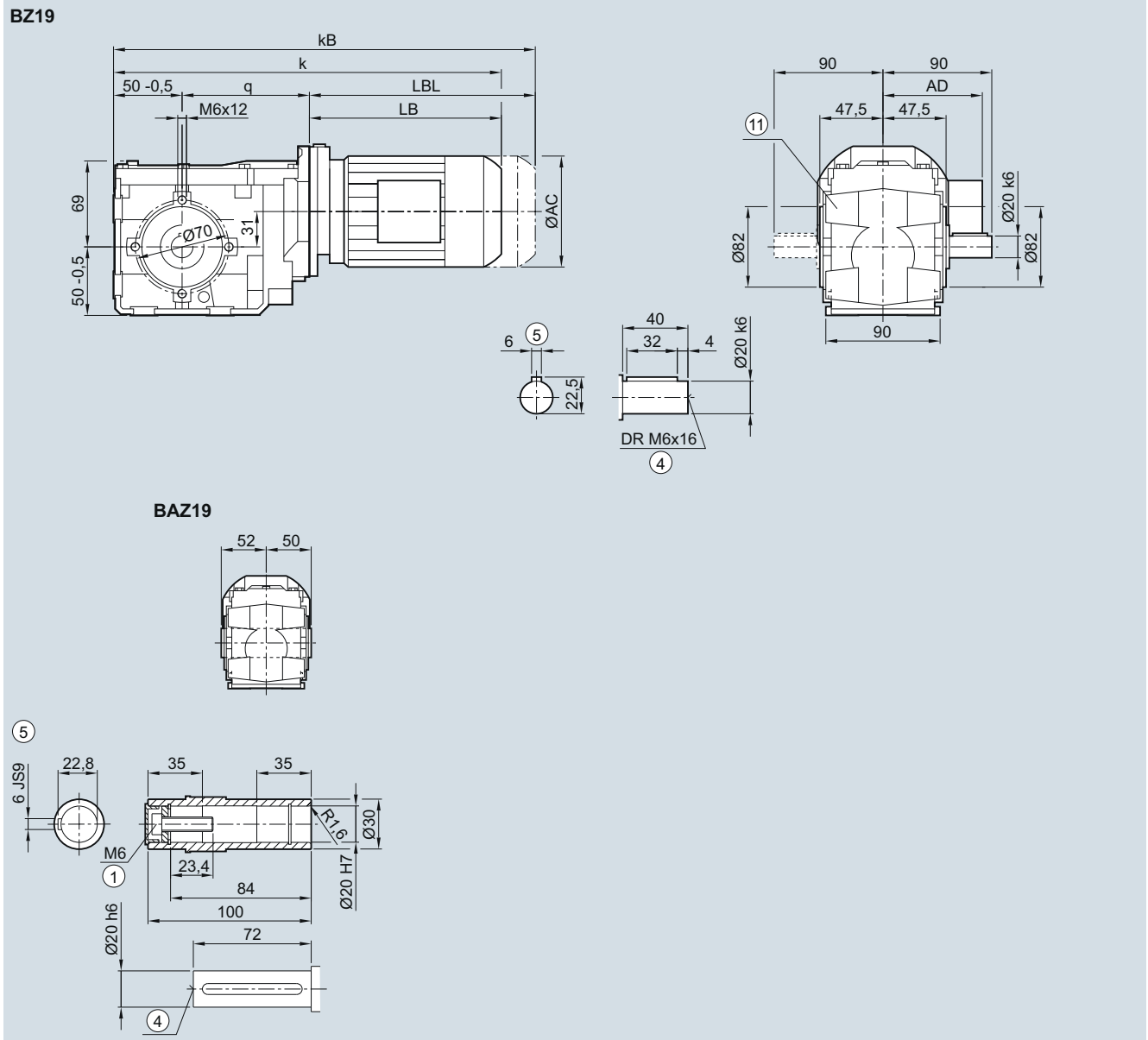
⑩ For inner contour see page 5/136

<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

⑪ Use bores only for foot-mounted design

**B.Z.19 gearbox in a housing flange design**

**BZ030, BAZ030**



Motor	LA 63	71	71Z	LE 80	80Z
q	133.0	141.0	141.0	149.5	149.5
AC	117.8	138.8	138.8	156.3	156.3
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2
k	343.5	375.5	394.5	439.5	474.5
kB	388.0	430.5	449.5	499.5	534.5
LB	160.5	184.5	203.5	240.0	275.0
LBL	205.0	239.5	258.5	300.0	335.0

① ISO 4014

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

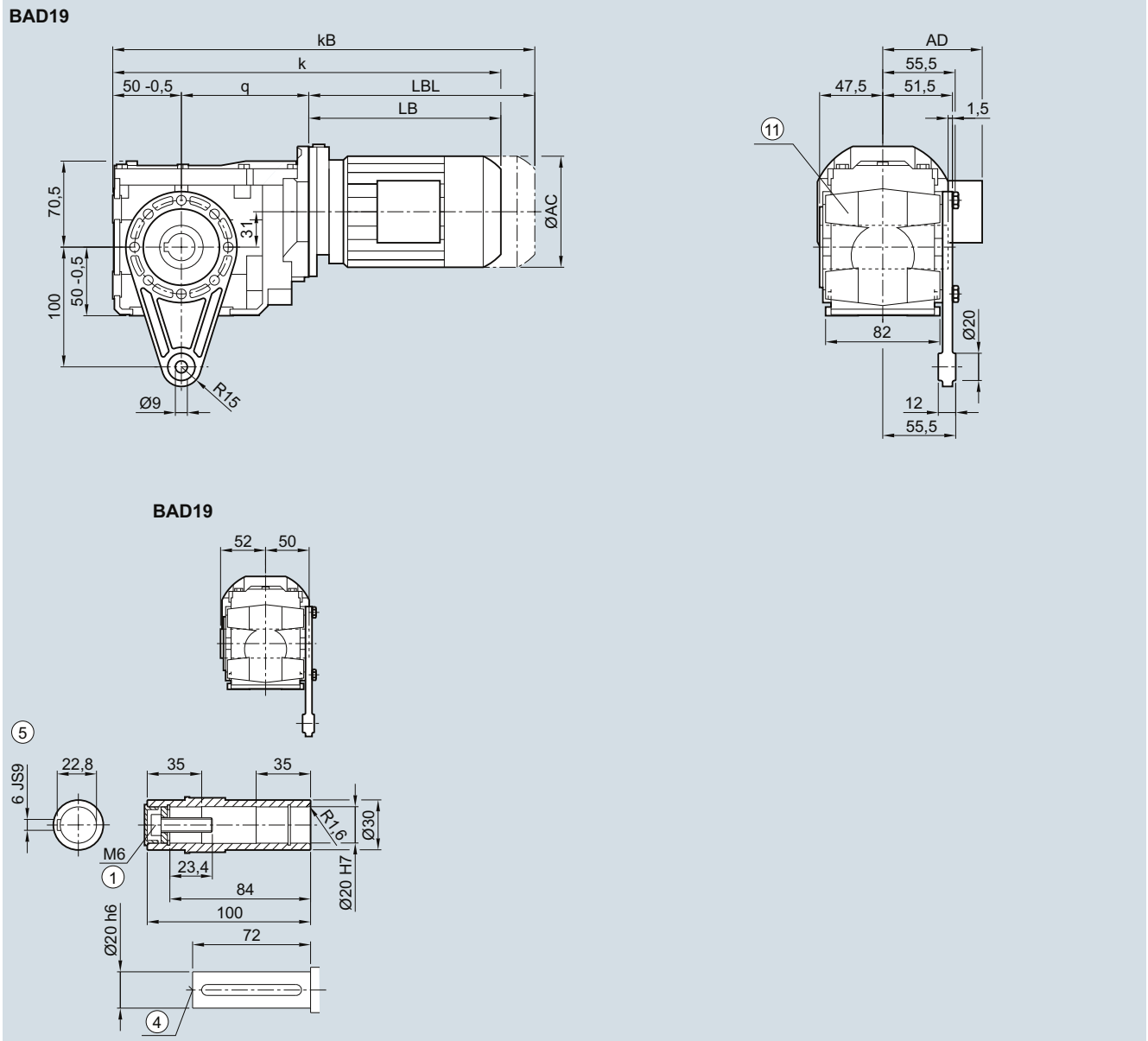
<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

⑩ Use bores only for foot-mounted design

**BAD.19 gearbox in a shaft-mounted design**

**BAD030**

5



Motor	LA 63	71	71Z	LE 80	80Z
q	133.0	141.0	141.0	149.5	149.5
AC	117.8	138.8	138.8	156.3	156.3
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2
k	343.5	375.5	394.5	439.5	474.5
kB	388.0	430.5	449.5	499.5	534.5
LB	160.5	184.5	203.5	240.0	275.0
LBL	205.0	239.5	258.5	300.0	335.0

① ISO 4014

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

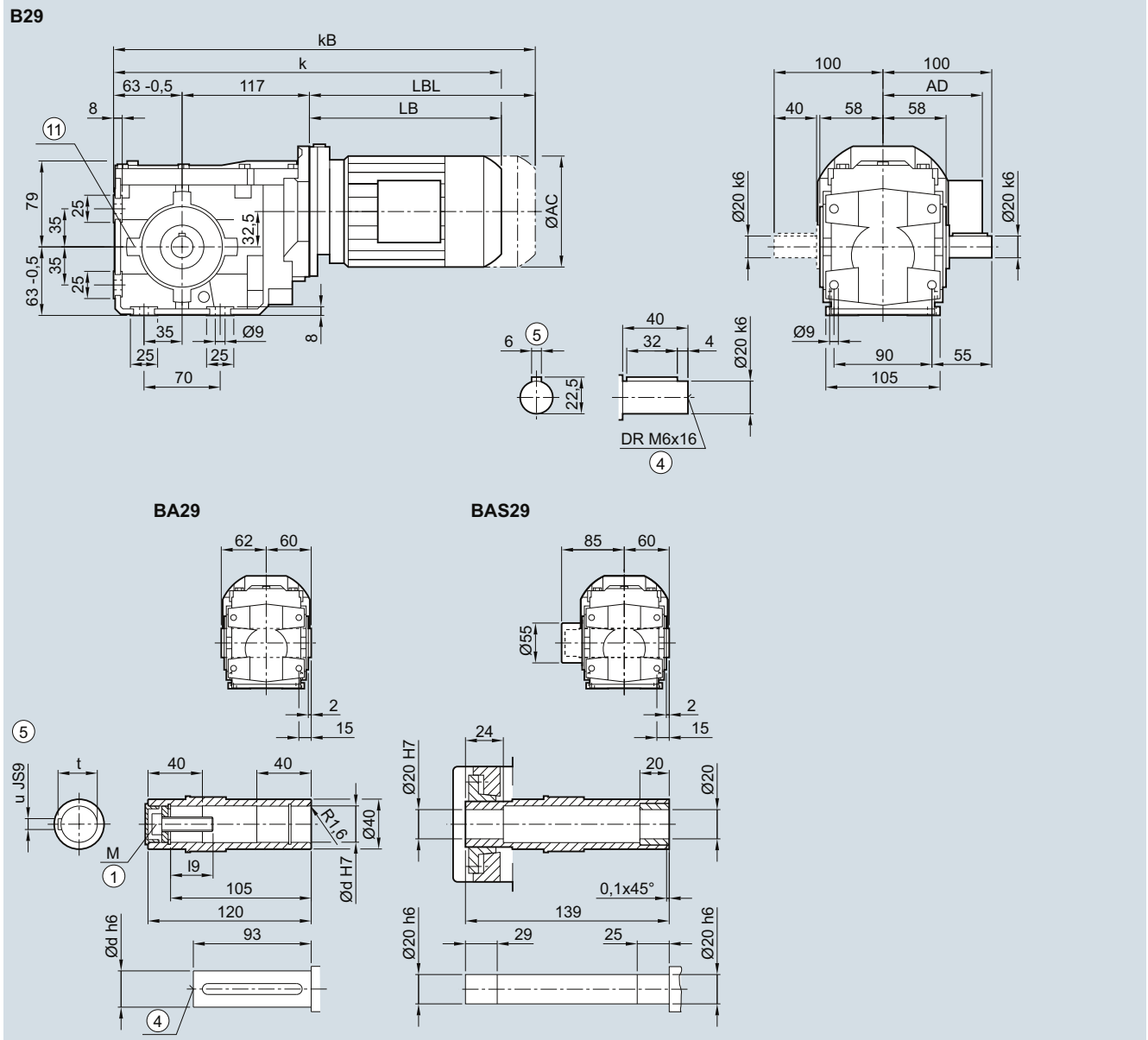
<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

⑩ Use bores only for foot-mounted design



**B..29 gearbox in a foot-mounted design**

**B030, BA030, BAS030**



Shaft	d	I9	M	t	u
	20	23.4	M6	22.8	6
	25	27.6	M10	28.3	8

Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5
k	374.0	406.0	425.0	470.0	505.0	531.5	571.5	588.0	623.0
kB	418.5	461.0	480.0	530.0	565.0	601.5	641.5	666.5	701.5
LB	194.0	226.0	245.0	290.0	325.0	351.5	391.5	408.0	443.0
LBL	238.5	281.0	300.0	350.0	385.0	421.5	461.5	486.5	521.5

① ISO 4014

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

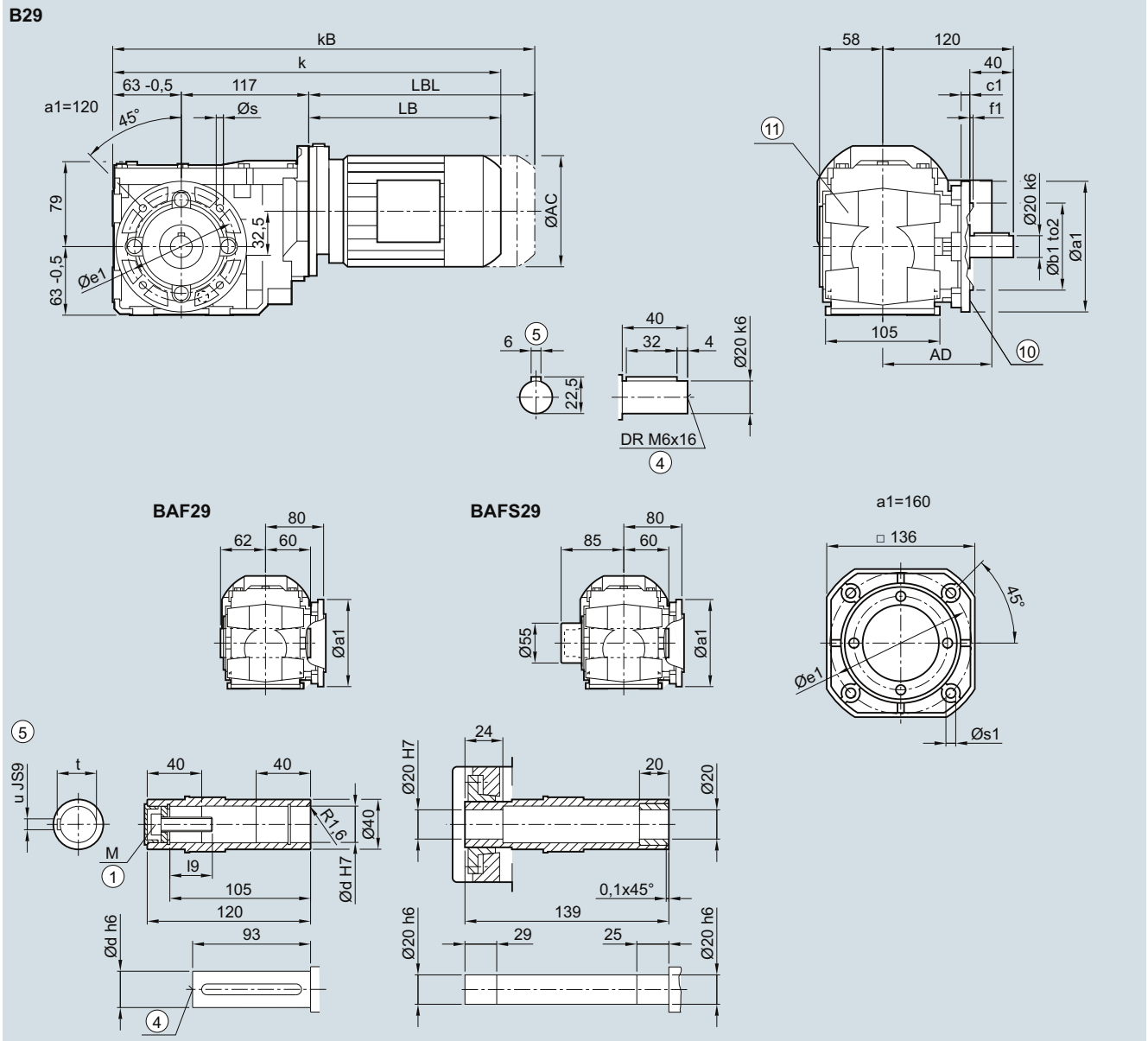
<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

⑥ Use bores only for housing flange design

**B.F.29 gearbox in a flange-mounted design**

**BF030, BAF030, BAFS030**

5

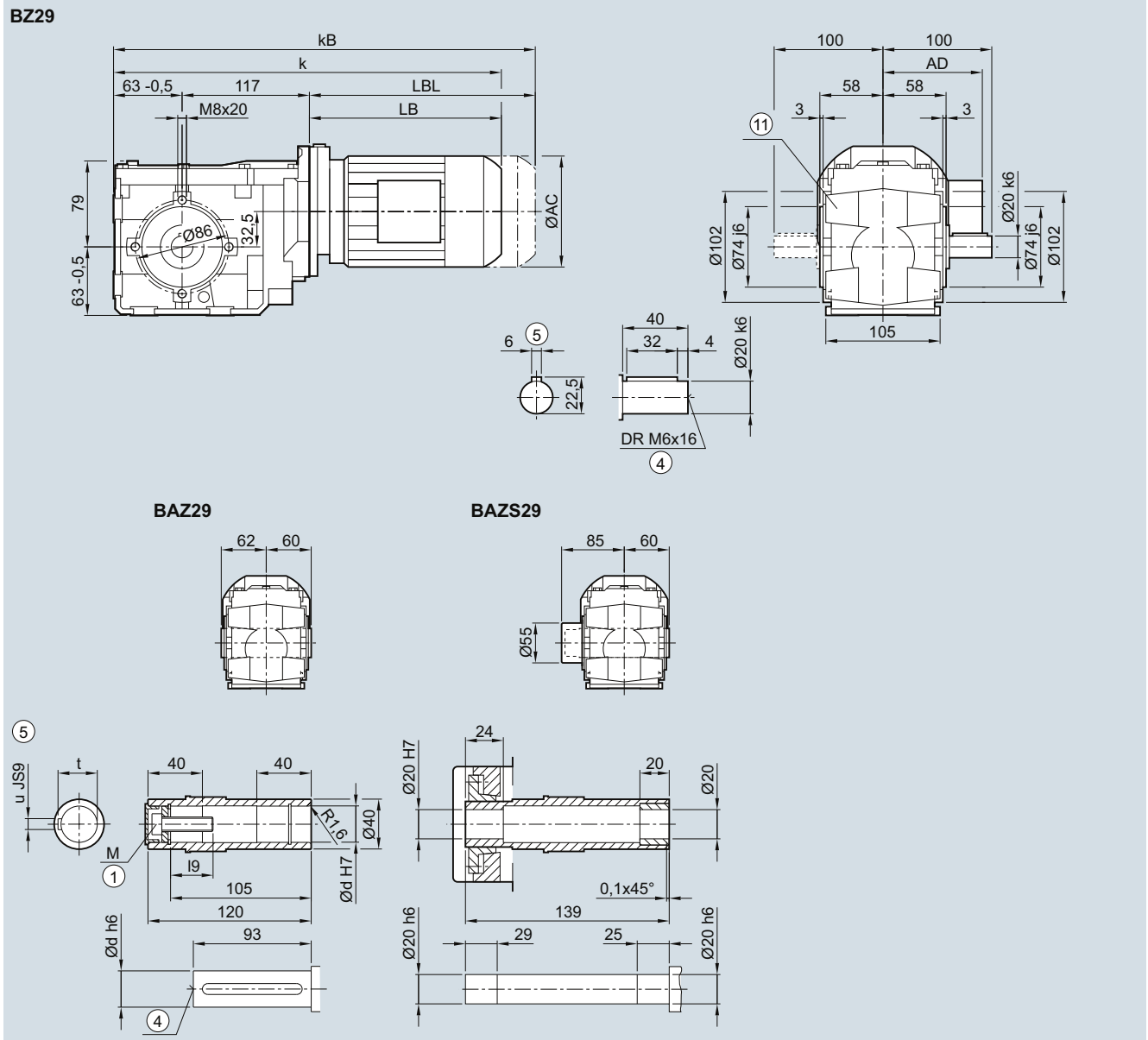


Flange	a1	b1	c1	f1	e1	s	to2		
	120	80	8	3.0	100	6.6	j6		
	160	110	9	3.5	130	9.0	j6		
Shaft	d	I9	M	t	u				
	20	23.4	M6	22.8	6				
	25	27.6	M10	28.3	8				
Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5
k	374.0	406.0	425.0	470.0	505.0	531.5	571.5	588.0	623.0
kB	418.5	461.0	480.0	530.0	565.0	601.5	641.5	666.5	701.5
LB	194.0	226.0	245.0	290.0	325.0	351.5	391.5	408.0	443.0
LBL	238.5	281.0	300.0	350.0	385.0	421.5	461.5	486.5	521.5

① ISO 4014      ④ DIN 332      ⑤ Feather key/keyway DIN 6885-1      ⑩ For inner contour see page 5/136  
 1) AD depends on the motor options, for other dimensions see page 8/36.      ⑪ Use bores only for foot-mounted design

**B.Z.29 gearbox in a housing flange design**

**BZ030, BAZ030, BAZS030**



Shaft	d	I9	M	t	u
	20	23.4	M6	22.8	6
	25	27.6	M10	28.3	8

Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5
k	374.0	406.0	425.0	470.0	505.0	531.5	571.5	588.0	623.0
kB	418.5	461.0	480.0	530.0	565.0	601.5	641.5	666.5	701.5
LB	194.0	226.0	245.0	290.0	325.0	351.5	391.5	408.0	443.0
LBL	238.5	281.0	300.0	350.0	385.0	421.5	461.5	486.5	521.5

① ISO 4014

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

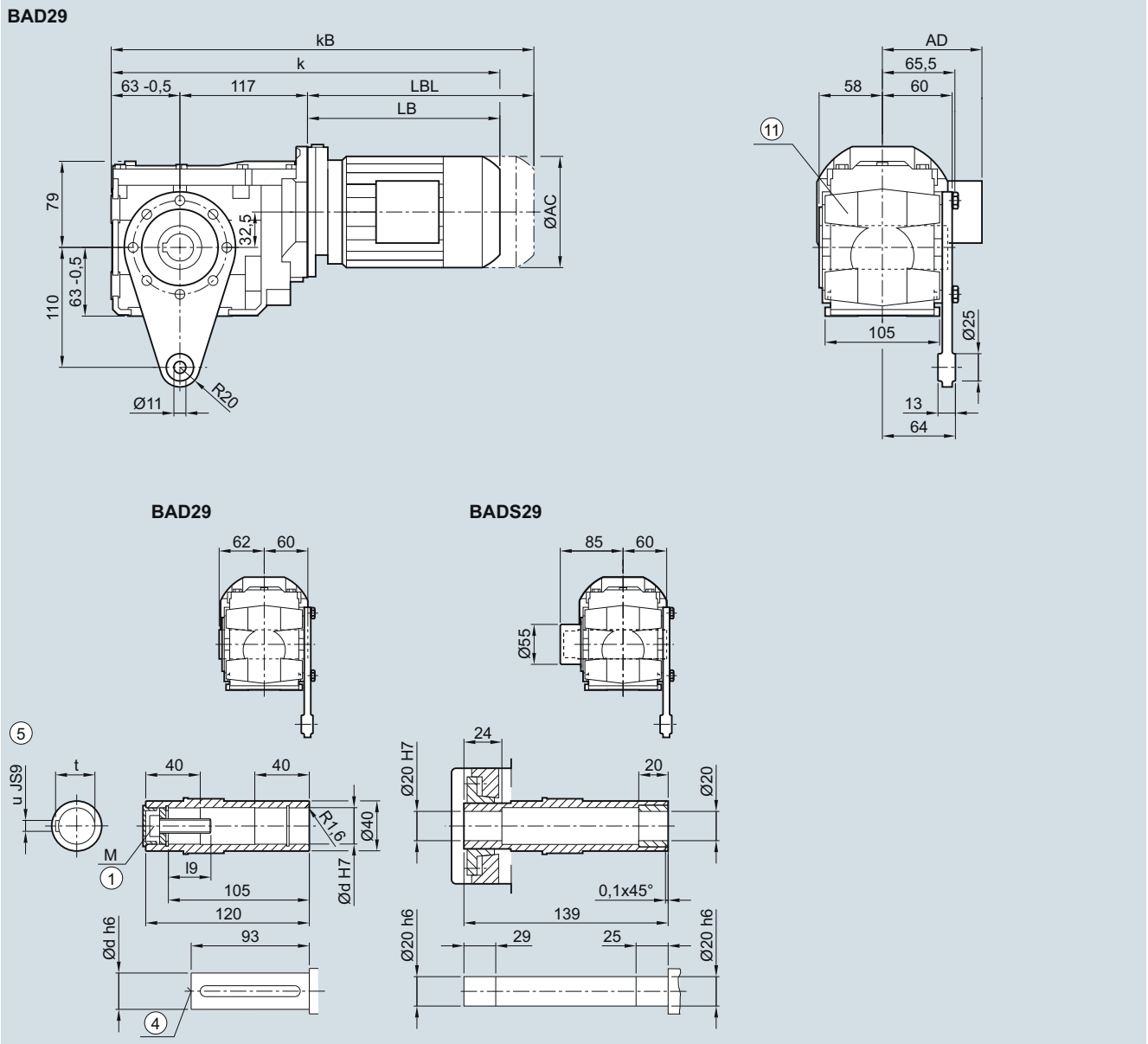
<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

⑩ Use bores only for foot-mounted design

**BAD.29 gearbox in a shaft-mounted design**

**BAD030, BADS030**

**5**



Shaft	d	I9	M	t	u
	20	23.4	M6	22.8	6
	25	27.6	M10	28.3	8

Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5
k	374.0	406.0	425.0	470.0	505.0	531.5	571.5	588.0	623.0
kB	418.5	461.0	480.0	530.0	565.0	601.5	641.5	666.5	701.5
LB	194.0	226.0	245.0	290.0	325.0	351.5	391.5	408.0	443.0
LBL	238.5	281.0	300.0	350.0	385.0	421.5	461.5	486.5	521.5

① ISO 4014

④ DIN 332

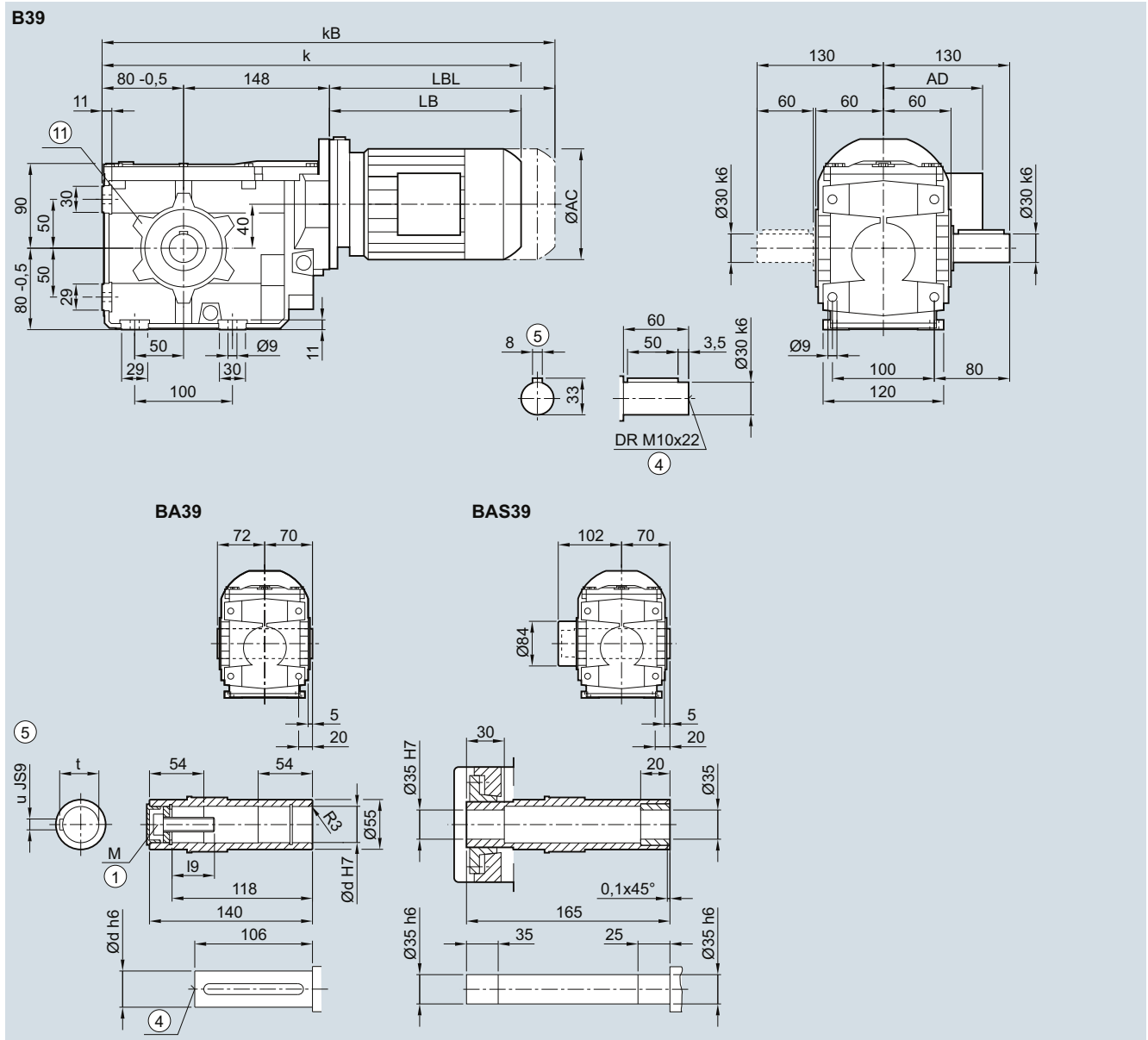
⑤ Feather key/keyway DIN 6885-1

<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

⑩ Use bores only for foot-mounted design

**B..39 gearbox in a foot-mounted design**

**B030, BA030, BAS030**



Shaft	d	I9	M	t	u
	30	32.6	M10	33.3	8
	35	37	M12	38.3	10
	40	47.75	M16	43.3	12

Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5
k	422.0	454.0	473.0	518.0	553.0	579.5	619.5	636.0	671.0	646.0	671.0
kB	466.5	509.0	528.0	578.0	613.0	649.5	689.5	714.5	749.5	719.0	744.0
LB	194.0	226.0	245.0	290.0	325.0	351.5	391.5	408.0	443.0	418.0	443.0
LBL	238.5	281.0	300.0	350.0	385.0	421.5	461.5	486.5	521.5	491.0	516.0

① ISO 4014

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

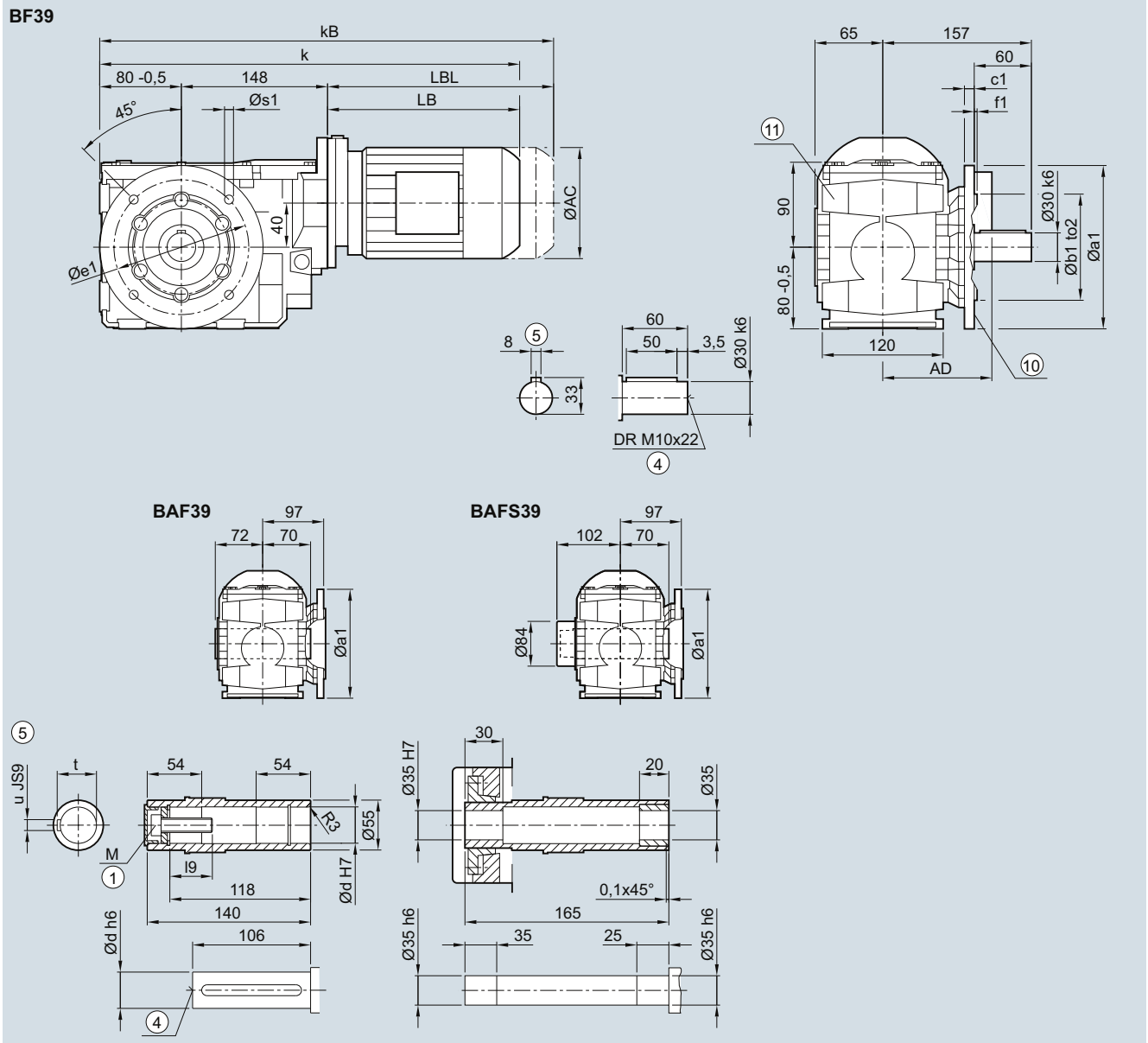
<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

⑥ Use bores only for housing flange design

**B.F.39 gearbox in a flange-mounted design**

**BF030, BAF030, BAFS030**

**5**

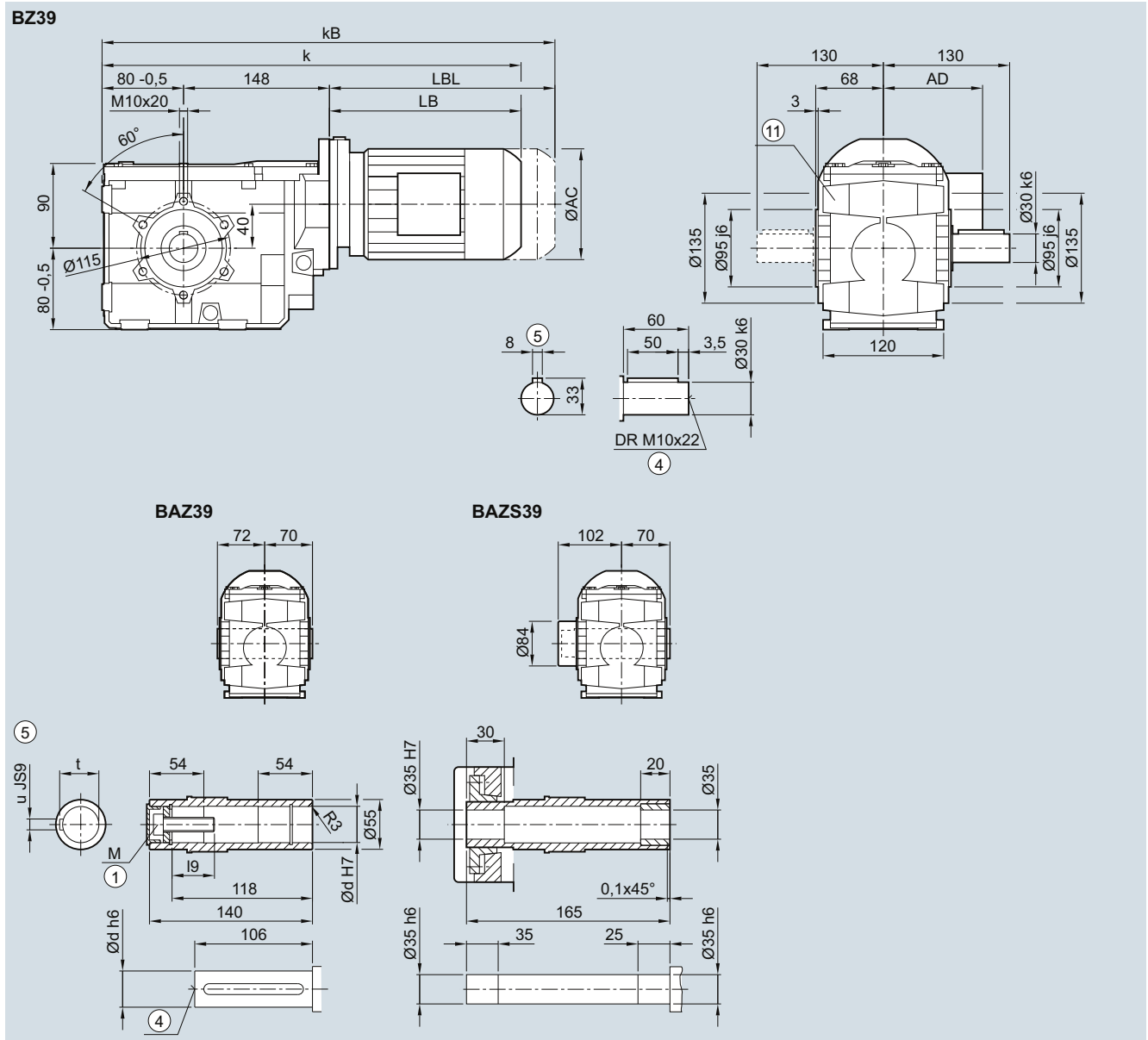


Flange	a1	b1	c1	f1	e1	s	to2				
	160	110	10	3.5	130	9	j6				
	200	130	12	3.5	165	11	j6				
Shaft	d	l9	M	t	u						
	30	32.6	M10	33.3	8						
	35	37	M12	38.3	10						
	40	47.75	M16	43.3	12						
Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5
k	422.0	454.0	473.0	518.0	553.0	579.5	619.5	636.0	671.0	646.0	671.0
kB	466.5	509.0	528.0	578.0	613.0	649.5	689.5	714.5	749.5	719.0	744.0
LB	194.0	226.0	245.0	290.0	325.0	351.5	391.5	408.0	443.0	418.0	443.0
LBL	238.5	281.0	300.0	350.0	385.0	421.5	461.5	486.5	521.5	491.0	516.0

① ISO 4014      ④ DIN 332      ⑤ Feather key/keyway DIN 6885-1      ⑩ For inner contour see page 5/136  
 1) AD depends on the motor options, for other dimensions see page 8/36.      ⑪ Use bores only for foot-mounted design

**B.Z.39 gearbox in a housing flange design**

**BZ030, BAZ030, BAZS030**



Shaft	d	I9	M	t	u
	30	32.6	M10	33.3	8
	35	37	M12	38.3	10
	40	47.75	M16	43.3	12

Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5
k	422.0	454.0	473.0	518.0	553.0	579.5	619.5	636.0	671.0	646.0	671.0
kB	466.5	509.0	528.0	578.0	613.0	649.5	689.5	714.5	749.5	719.0	744.0
LB	194.0	226.0	245.0	290.0	325.0	351.5	391.5	408.0	443.0	418.0	443.0
LBL	238.5	281.0	300.0	350.0	385.0	421.5	461.5	486.5	521.5	491.0	516.0

① ISO 4014

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

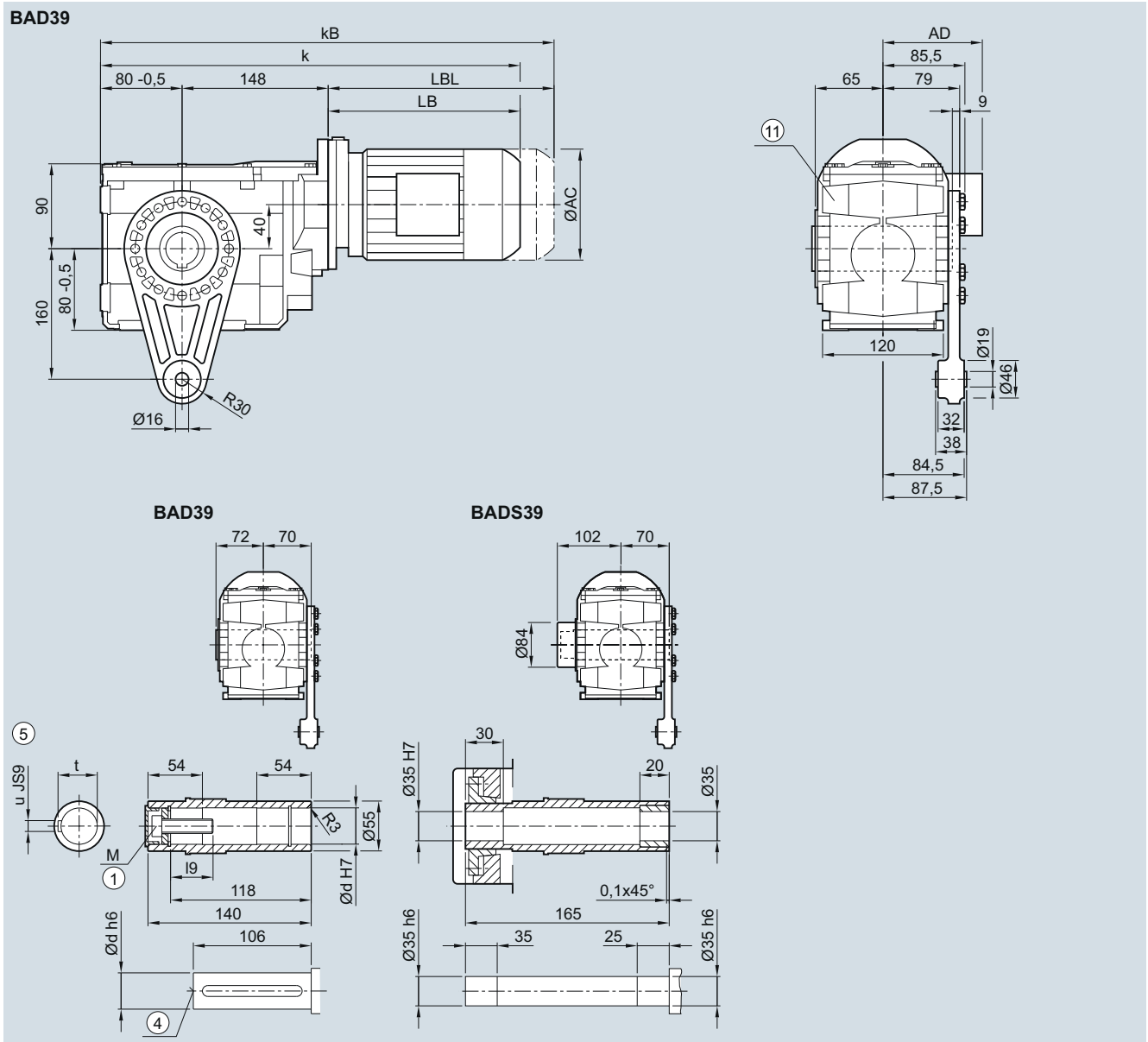
<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

⑩ Use bores only for foot-mounted design

**BAD.39 gearbox in a shaft-mounted design**

**BAD030, BADS030**

**5**



Shaft	d	I9	M	t	u
	30	32.6	M10	33.3	8
	35	37	M12	38.3	10
	40	47.75	M16	43.3	12

Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5
k	422.0	454.0	473.0	518.0	553.0	579.5	619.5	636.0	671.0	646.0	671.0
kB	466.5	509.0	528.0	578.0	613.0	649.5	689.5	714.5	749.5	719.0	744.0
LB	194.0	226.0	245.0	290.0	325.0	351.5	391.5	408.0	443.0	418.0	443.0
LBL	238.5	281.0	300.0	350.0	385.0	421.5	461.5	486.5	521.5	491.0	516.0

① ISO 4014

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

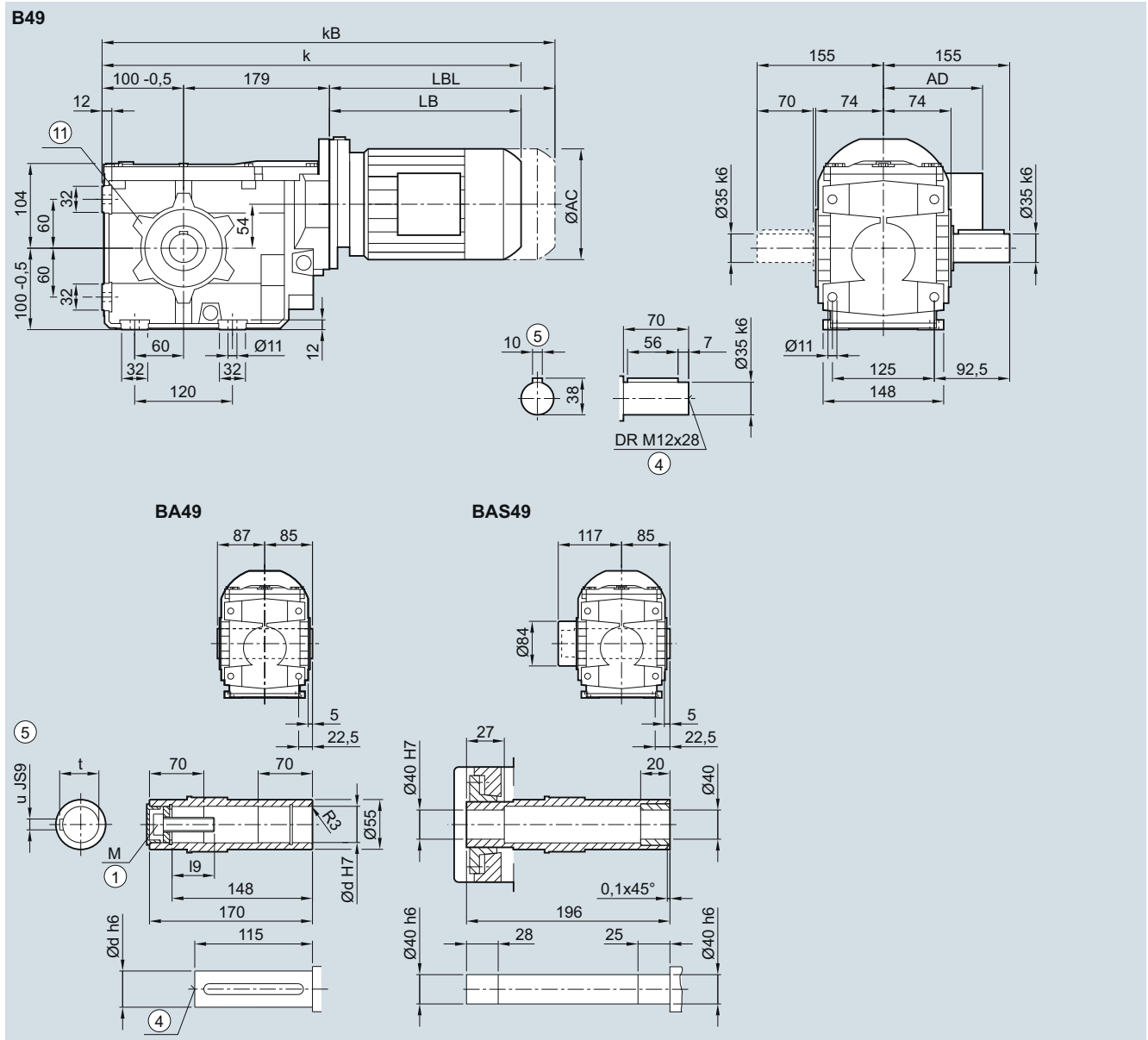
<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

⑩ Use bores only for foot-mounted design



**B..49 gearbox in a foot-mounted design**

**B030, BA030, BAS030**



Shaft	d	I9	M	t	u
	35	57	M12	38.3	10
	40	67.75	M16	43.3	12

Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0
k	463.5	495.5	514.5	559.5	594.5	621.0	661.0	677.5	712.5	687.5	722.0	740.5	790.5
kB	508.0	550.5	569.5	619.5	654.5	691.0	731.0	756.0	791.0	760.5	795.0	845.0	895.0
LB	184.5	216.5	235.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LBL	229.0	271.5	290.5	340.5	375.5	412.0	452.0	477.0	512.0	481.5	516.0	566.0	616.0

① ISO 4014

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

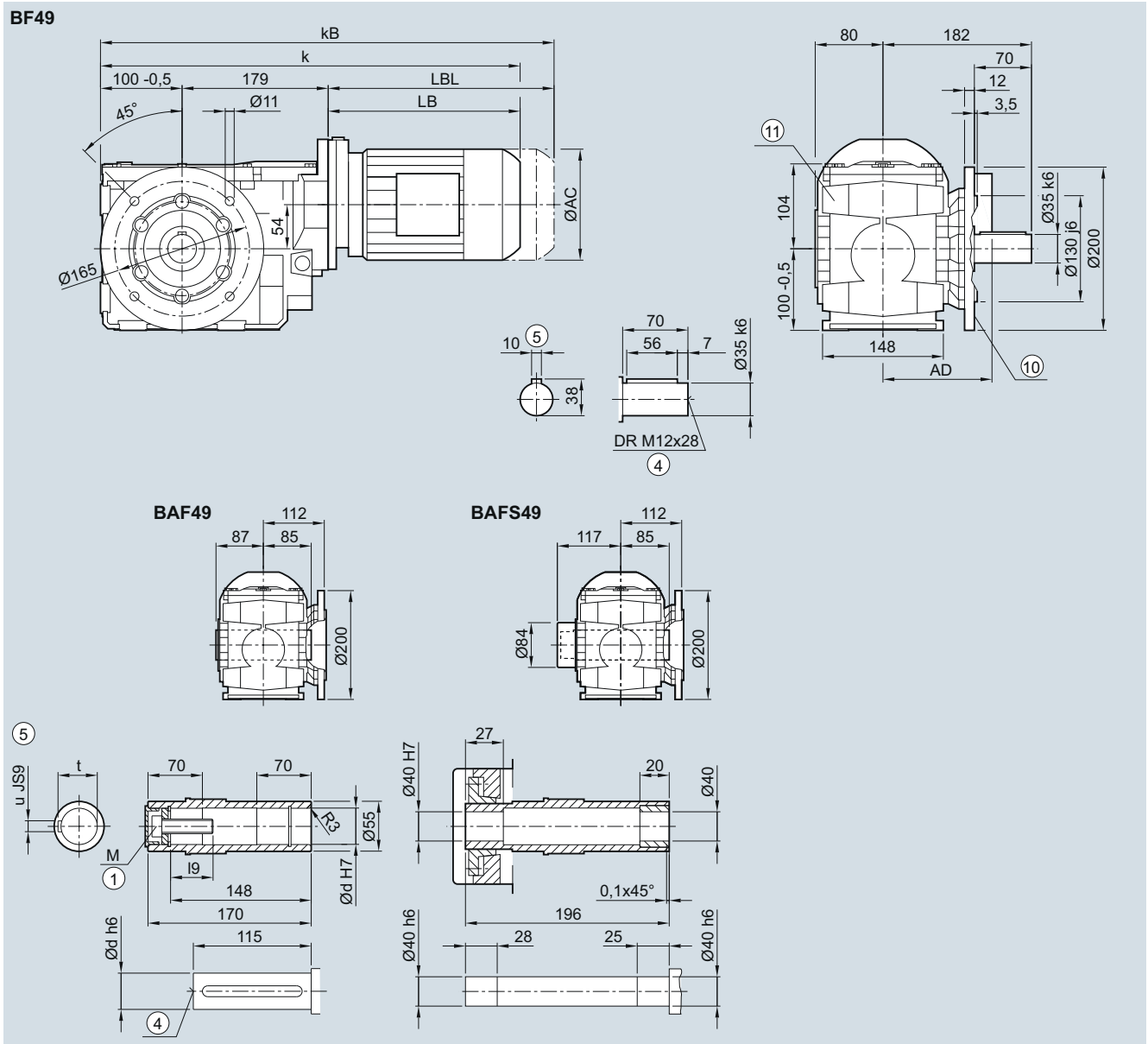
<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

⑥ Use bores only for housing flange design

**B.F.49 gearbox in a flange-mounted design**

**BF030, BAF030, BAFS030**

**5**



Shaft	d	I9		M		t		u	
	35	57		M12		38.3		10	
	40	67.75		M16		43.3		12	

Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0
k	463.5	495.5	514.5	559.5	594.5	621.0	661.0	677.5	712.5	687.5	722.0	740.5	790.5
kB	508.0	550.5	569.5	619.5	654.5	691.0	731.0	756.0	791.0	760.5	795.0	845.0	895.0
LB	184.5	216.5	235.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LBL	229.0	271.5	290.5	340.5	375.5	412.0	452.0	477.0	512.0	481.5	516.0	566.0	616.0

① ISO 4014

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

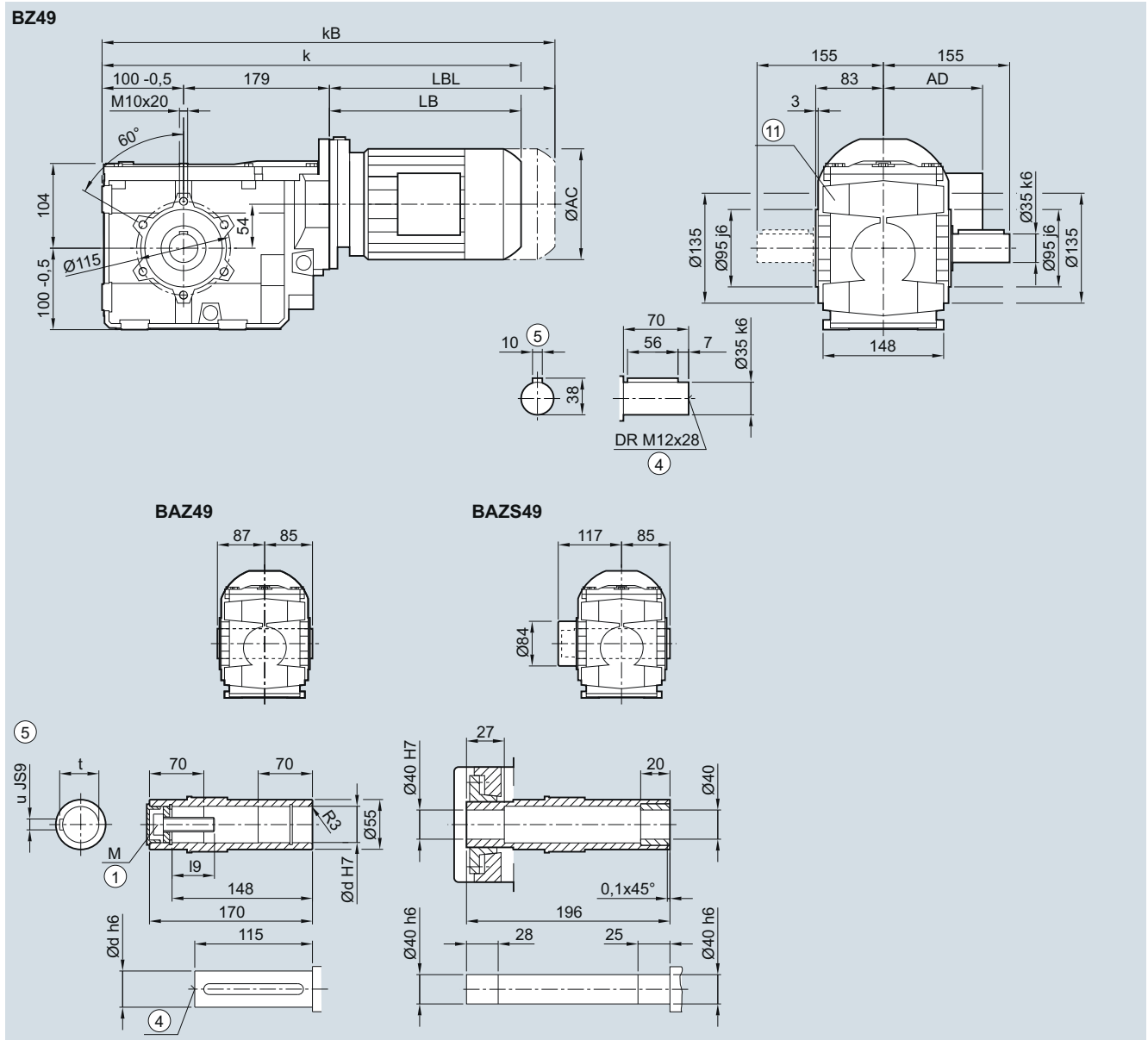
⑩ For inner contour see page 5/136

<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

⑪ Use bores only for foot-mounted design

**B.Z.49 gearbox in a housing flange design**

**BZ030, BAZ030, BAZS030**



Shaft	d	I9	M	t	u
	35	57	M12	38.3	10
	40	67.75	M16	43.3	12

Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0
k	463.5	495.5	514.5	559.5	594.5	621.0	661.0	677.5	712.5	687.5	722.0	740.5	790.5
kB	508.0	550.5	569.5	619.5	654.5	691.0	731.0	756.0	791.0	760.5	795.0	845.0	895.0
LB	184.5	216.5	235.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LBL	229.0	271.5	290.5	340.5	375.5	412.0	452.0	477.0	512.0	481.5	516.0	566.0	616.0

① ISO 4014

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

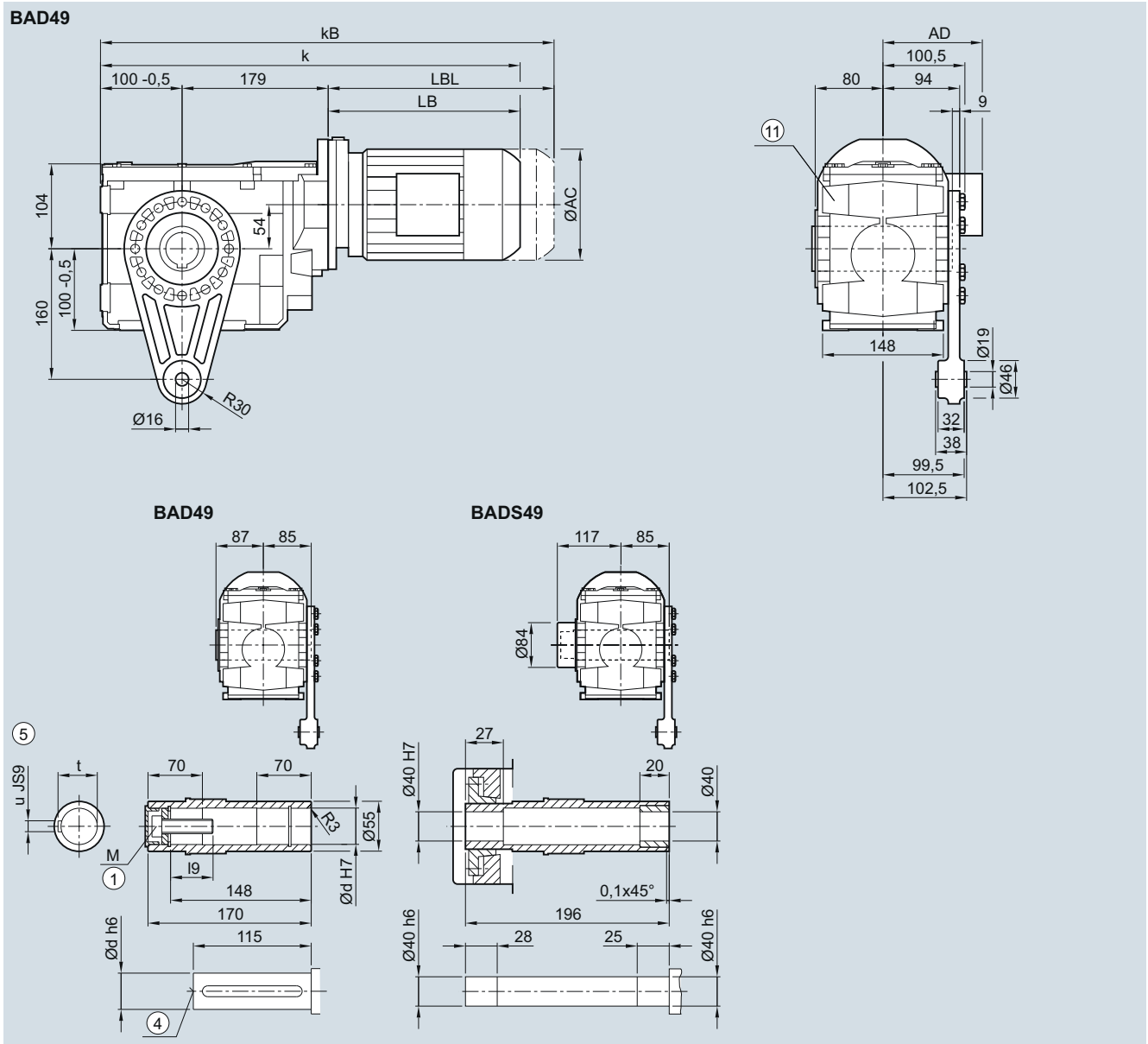
<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

⑩ Use bores only for foot-mounted design

**BAD.49 gearbox in a shaft-mounted design**

**BAD030, BADA030**

**5**



Shaft	d	I9	M	t	u
	35	57	M12	38.3	10
	40	67.75	M16	43.3	12

Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0
k	463.5	495.5	514.5	559.5	594.5	621.0	661.0	677.5	712.5	687.5	722.0	740.5	790.5
kB	508.0	550.5	569.5	619.5	654.5	691.0	731.0	756.0	791.0	760.5	795.0	845.0	895.0
LB	184.5	216.5	235.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LBL	229.0	271.5	290.5	340.5	375.5	412.0	452.0	477.0	512.0	481.5	516.0	566.0	616.0

① ISO 4014

④ DIN 332

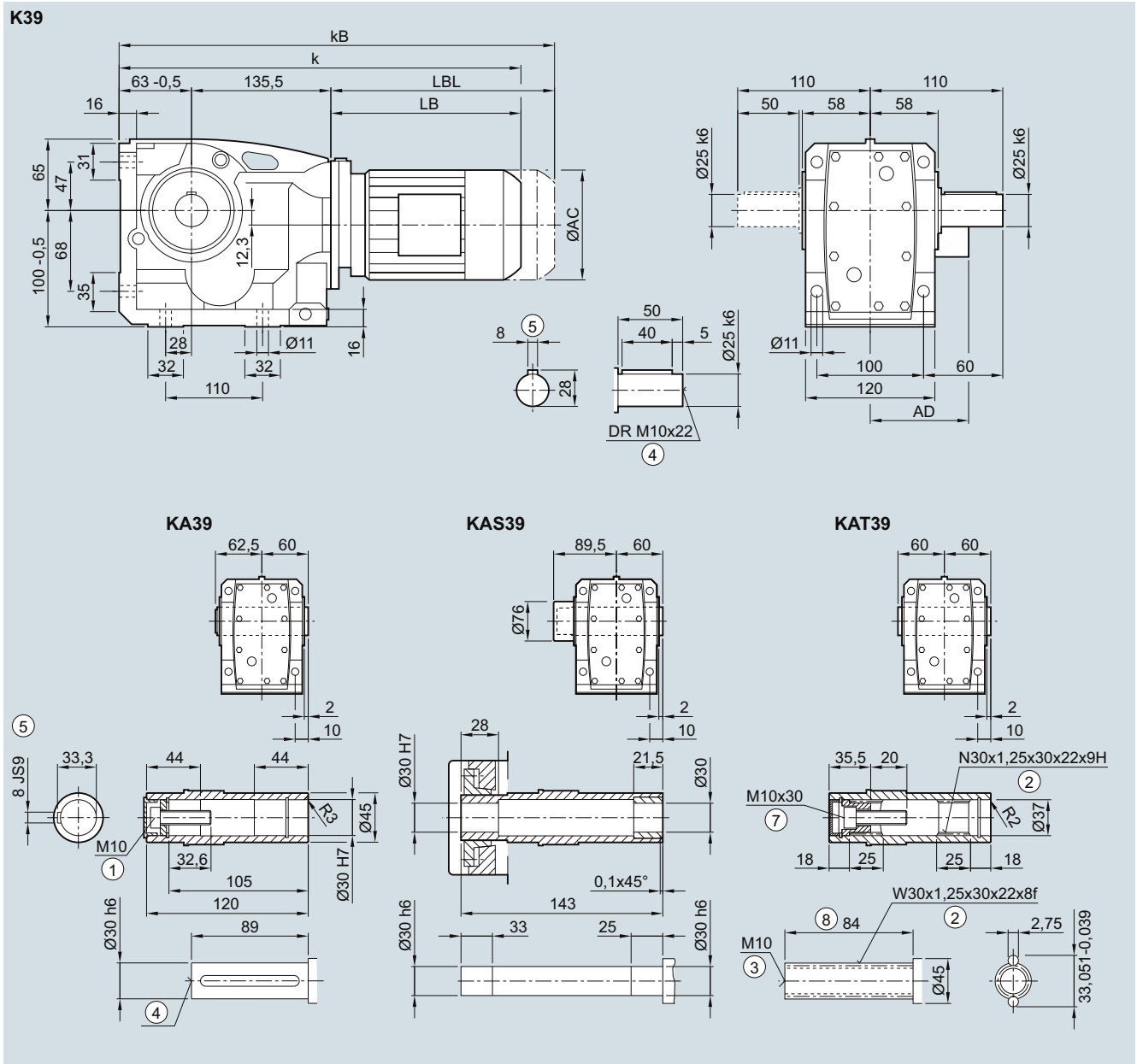
⑤ Feather key/keyway DIN 6885-1

<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

⑩ Use bores only for foot-mounted design

**K..39 gearbox in a foot-mounted design**

**K030, KA030, KAS030, KAT030**



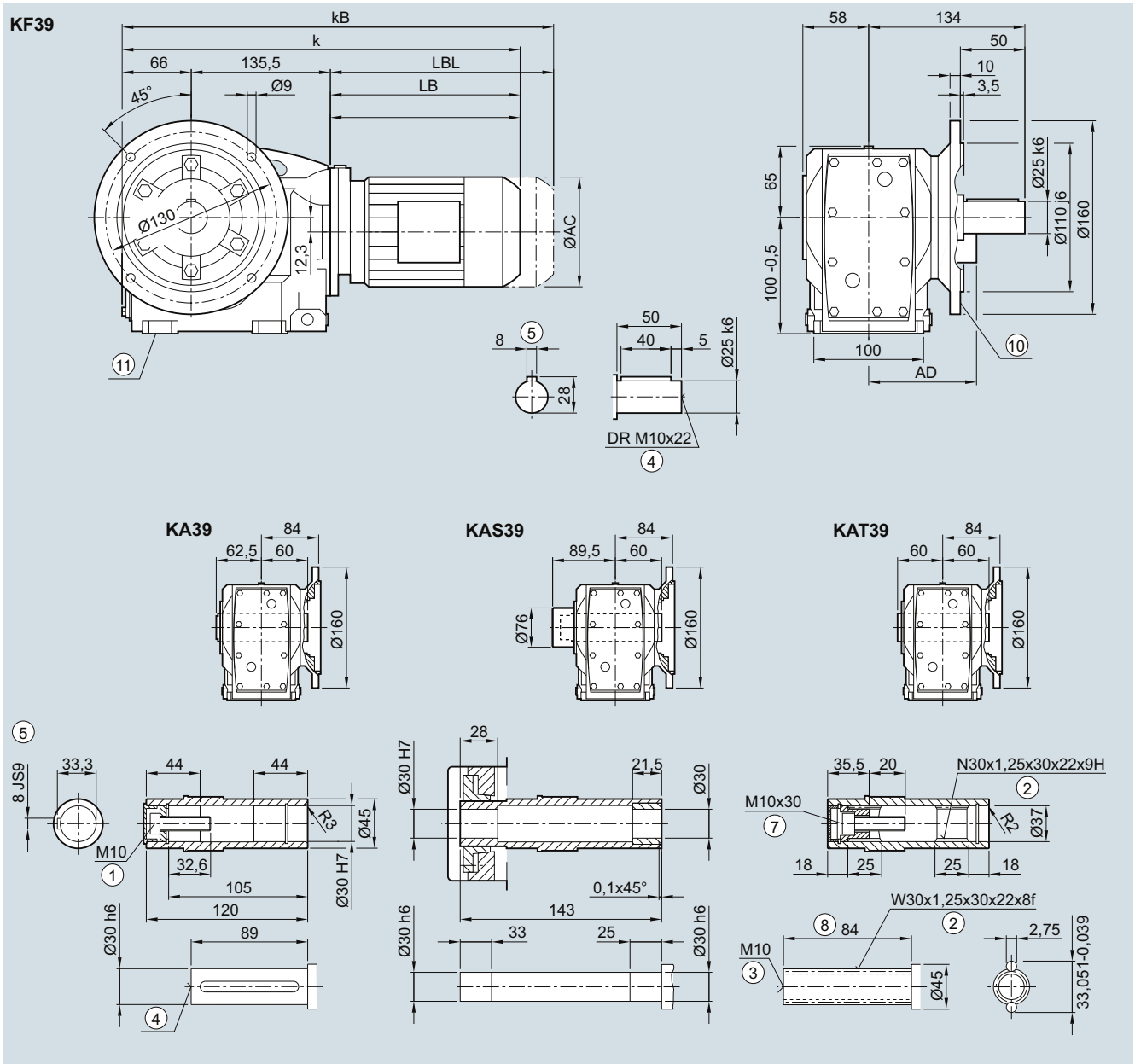
Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5
k	392.0	424.0	443.0	488.0	523.0	549.5	589.5	606.0	641.0	616.0	641.0
kB	436.5	479.0	498.0	548.0	583.0	619.5	659.5	684.5	719.5	689.0	714.0
LB	194.0	226.0	245.0	290.0	325.0	351.5	391.5	408.0	443.0	418.0	443.0
LBL	238.5	281.0	300.0	350.0	385.0	421.5	461.5	486.5	521.5	491.0	516.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 1) AD depends on the motor options, for other dimensions see page 8/36.

**K.F.39 gearbox in a flange-mounted design**

**KF030, KAF030, KAFS030, KAFT030**

**5**

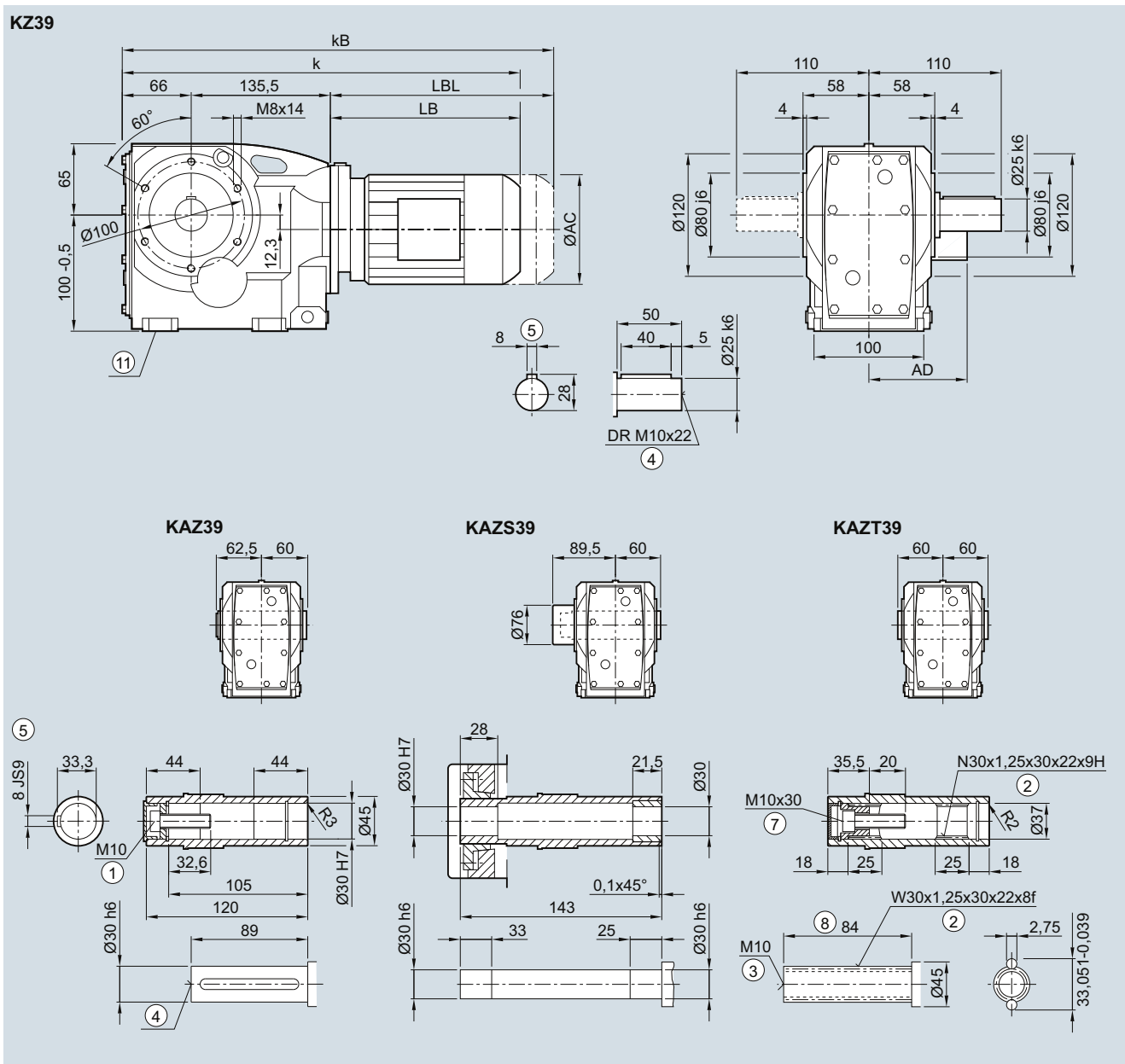


Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5
k	395.0	427.0	446.0	491.0	526.0	552.5	592.5	609.0	644.0	619.0	644.0
kB	439.5	482.0	501.0	551.0	586.0	622.5	662.5	687.5	722.5	692.0	717.0
LB	194.0	226.0	245.0	290.0	325.0	351.5	391.5	408.0	443.0	418.0	443.0
LBL	238.5	281.0	300.0	350.0	385.0	421.5	461.5	486.5	521.5	491.0	516.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ For inner contour see page 5/136    ⑪ Use bores only for foot-mounted design  
 1) AD depends on the motor options, for other dimensions see page 8/36.

**K.Z.39 gearbox in a housing flange design**

**KZ030, KAZ030, KAZS030, KAZT030**



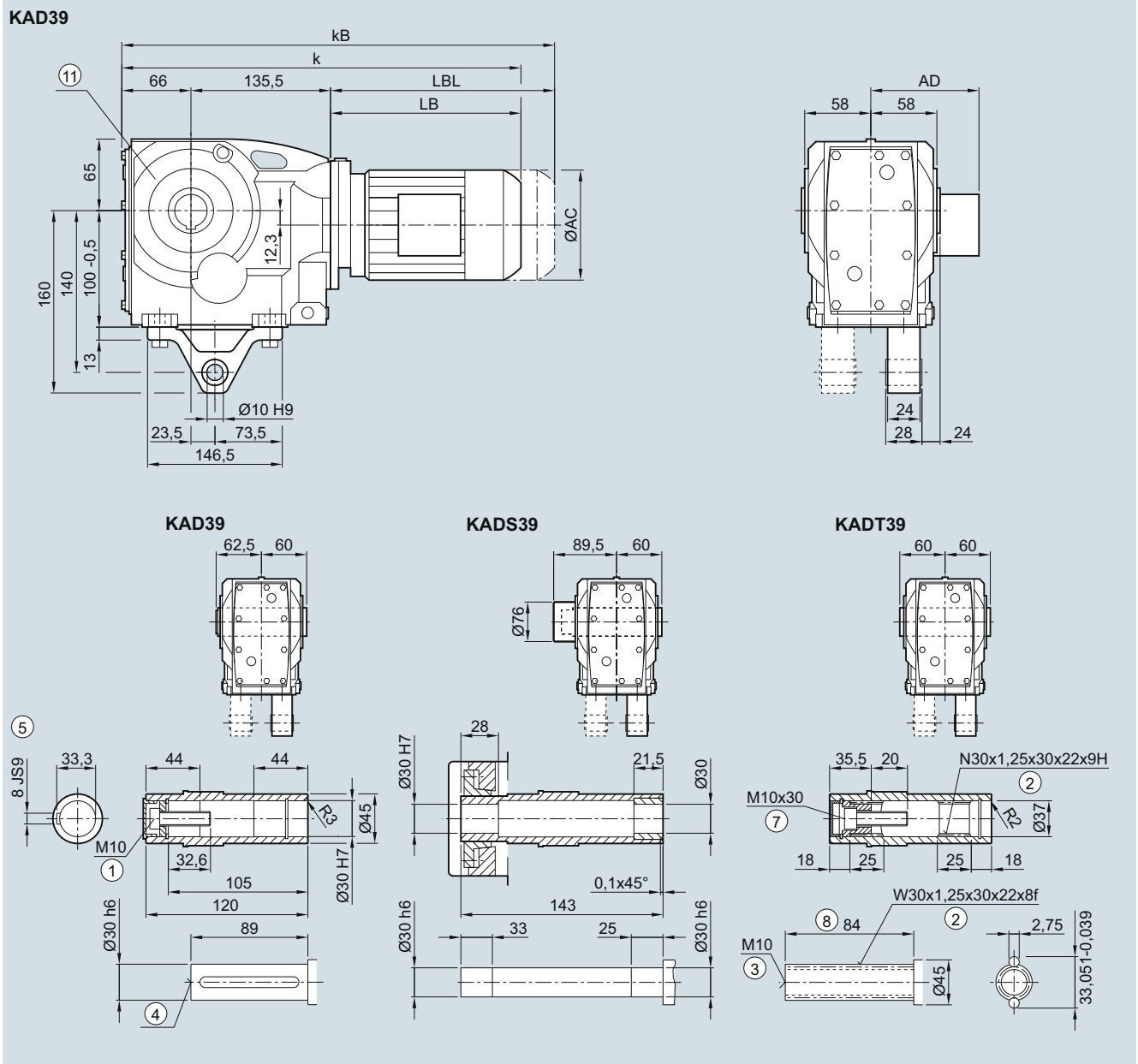
Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5
k	395.0	427.0	446.0	491.0	526.0	552.5	592.5	609.0	644.0	619.0	644.0
kB	439.5	482.0	501.0	551.0	586.0	622.5	662.5	687.5	722.5	692.0	717.0
LB	194.0	226.0	245.0	290.0	325.0	351.5	391.5	408.0	443.0	418.0	443.0
LBL	238.5	281.0	300.0	350.0	385.0	421.5	461.5	486.5	521.5	491.0	516.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ Use bores only for foot-mounted design  
 1) AD depends on the motor options, for other dimensions see page 8/36.

KAD.39 gearbox in a shaft-mounted design

KAD031, KADS031, KADT031

5



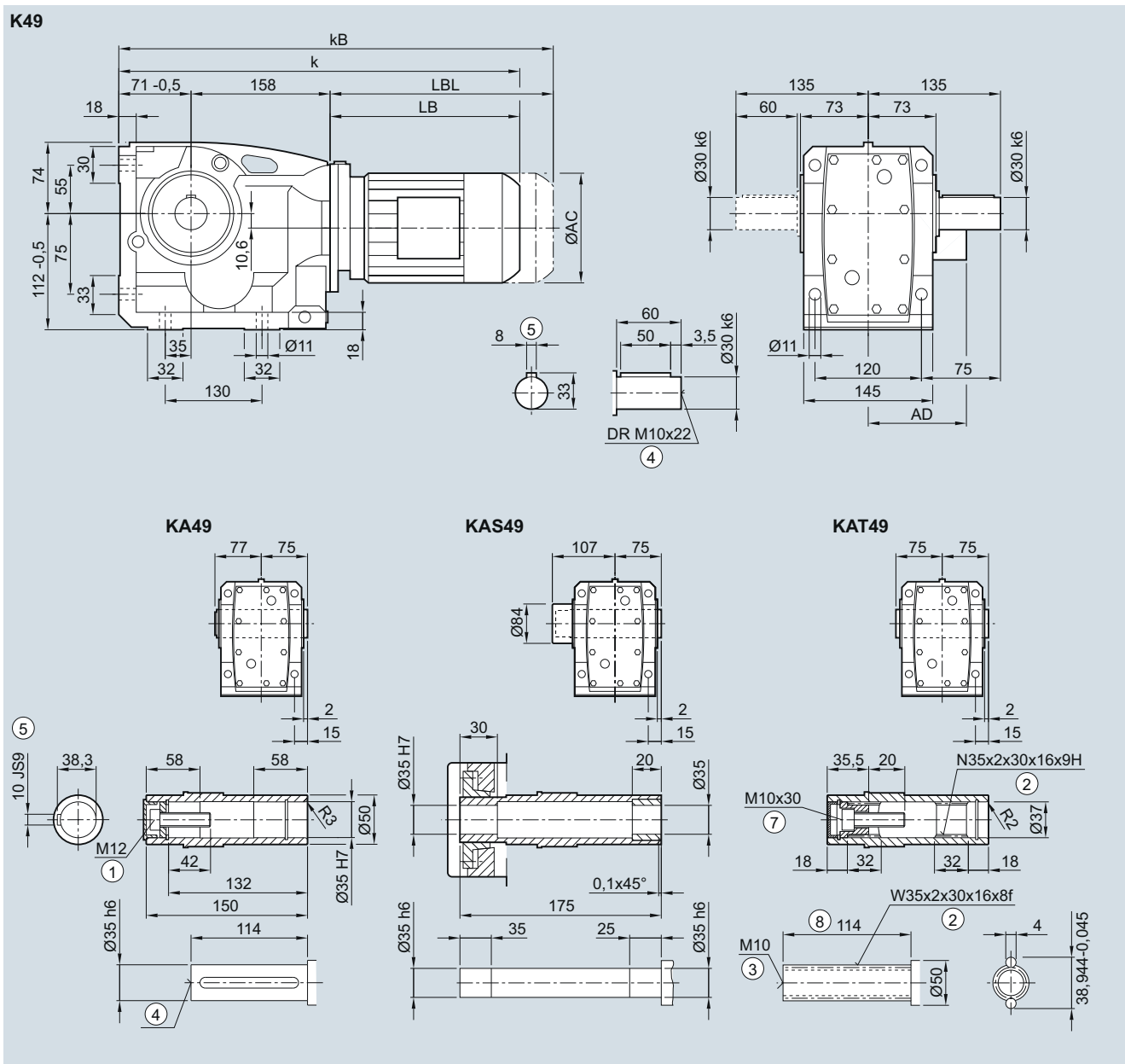
Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5
k	395.0	427.0	446.0	491.0	526.0	552.5	592.5	609.0	644.0	619.0	644.0
kB	439.5	482.0	501.0	551.0	586.0	622.5	662.5	687.5	722.5	692.0	717.0
LB	194.0	226.0	245.0	290.0	325.0	351.5	391.5	408.0	443.0	418.0	443.0
LBL	238.5	281.0	300.0	350.0	385.0	421.5	461.5	486.5	521.5	491.0	516.0

① ISO 4014 ② DIN 5480 ③ DIN 332-D ④ DIN 332 ⑤ Feather key/keyway DIN 6885-1 ⑦ ISO 4762 ⑧ Without locating shoulder +1 mm  
 ⑩ Use bores only for housing flange design 1) AD depends on the motor options, for other dimensions see page 8/36.



**K..49 gearbox in a foot-mounted design**

**K030, KA030, KAS030, KAT030**



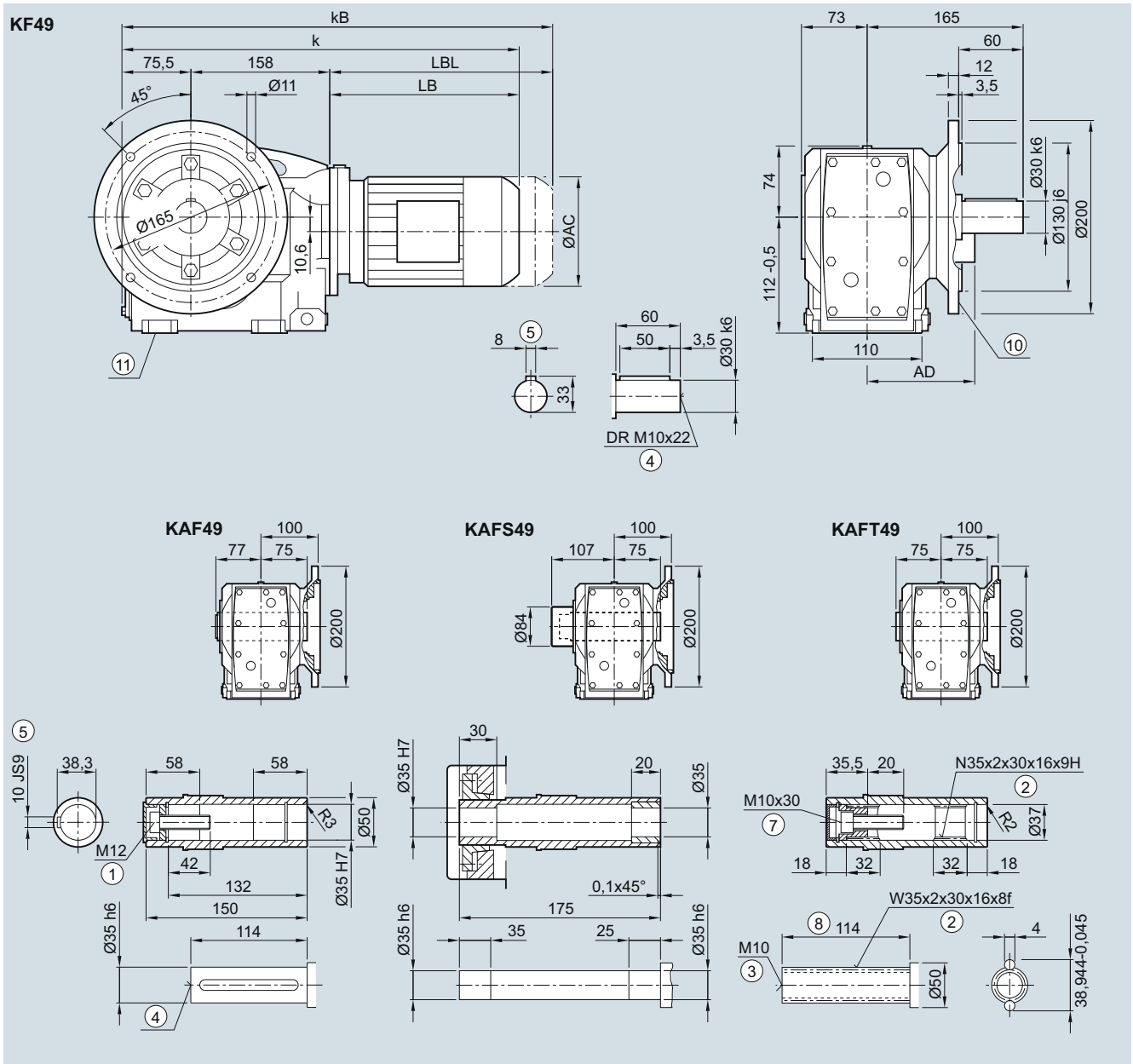
Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0
k	413.5	445.5	464.5	509.5	544.5	571.0	611.0	627.5	662.5	637.5	672.0	690.5	740.5
kB	458.0	500.5	519.5	569.5	604.5	641.0	681.0	706.0	741.0	710.5	745.0	795.0	845.0
LB	184.5	216.5	235.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LBL	229.0	271.5	290.5	340.5	375.5	412.0	452.0	477.0	512.0	481.5	516.0	566.0	616.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 1) AD depends on the motor options, for other dimensions see page 8/36.

**K.F.49 gearbox in a flange-mounted design**

**KF030, KAF030, KAFS030, KAFT030**

**5**

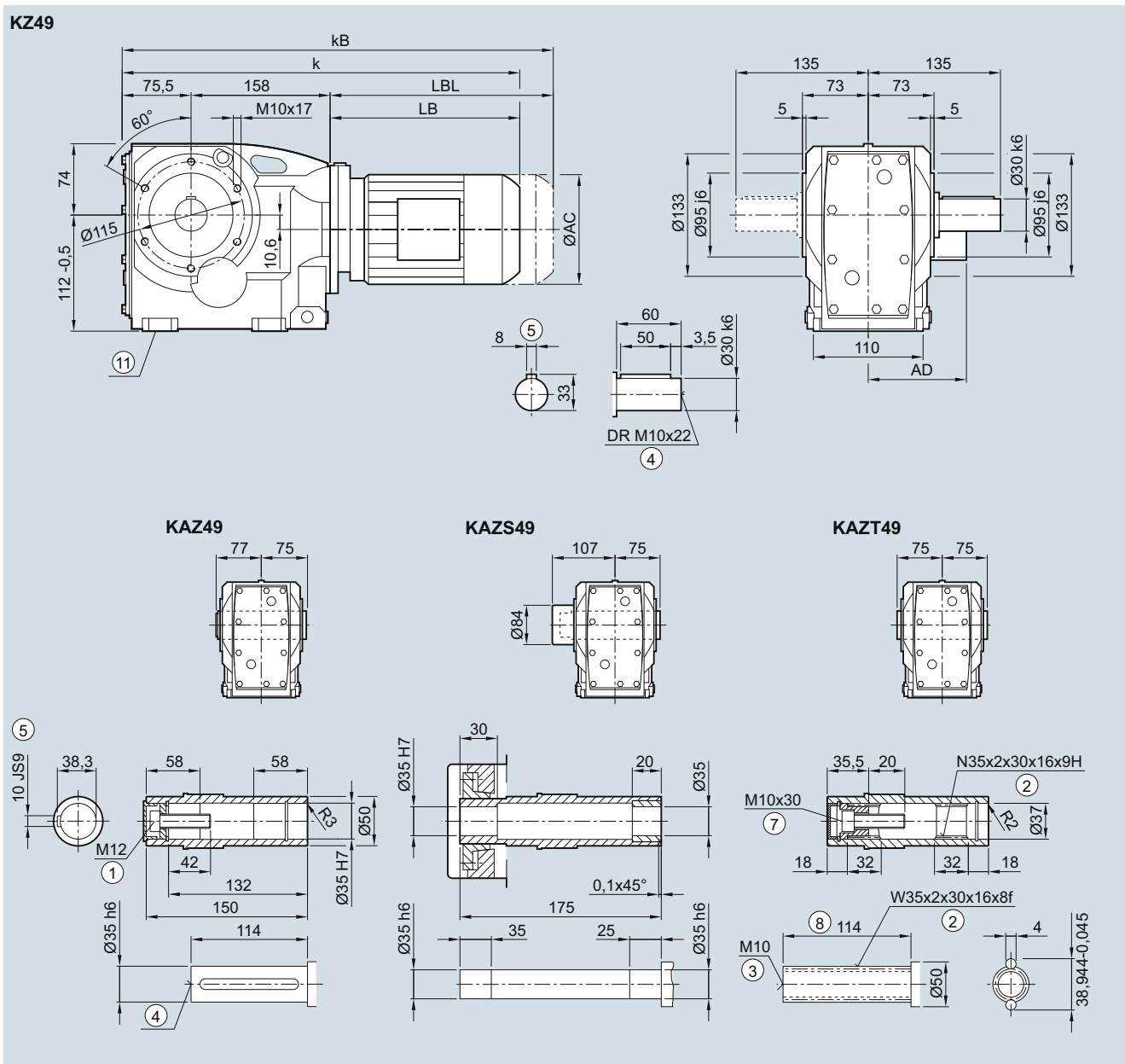


Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0
k	418.0	450.0	469.0	514.0	549.0	575.5	615.5	632.0	667.0	642.0	676.5	695.0	745.0
kB	462.5	505.0	524.0	574.0	609.0	645.5	685.5	710.5	745.5	715.0	749.5	799.5	849.5
LB	184.5	216.5	235.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LBL	229.0	271.5	290.5	340.5	375.5	412.0	452.0	477.0	512.0	481.5	516.0	566.0	616.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ For inner contour see page 5/136    ⑪ Use bores only for foot-mounted design  
 1) AD depends on the motor options, for other dimensions see page 8/36.

**K.Z.49 gearbox in a housing flange design**

**KZ030, KAZ030, KAZS030, KAZT030**



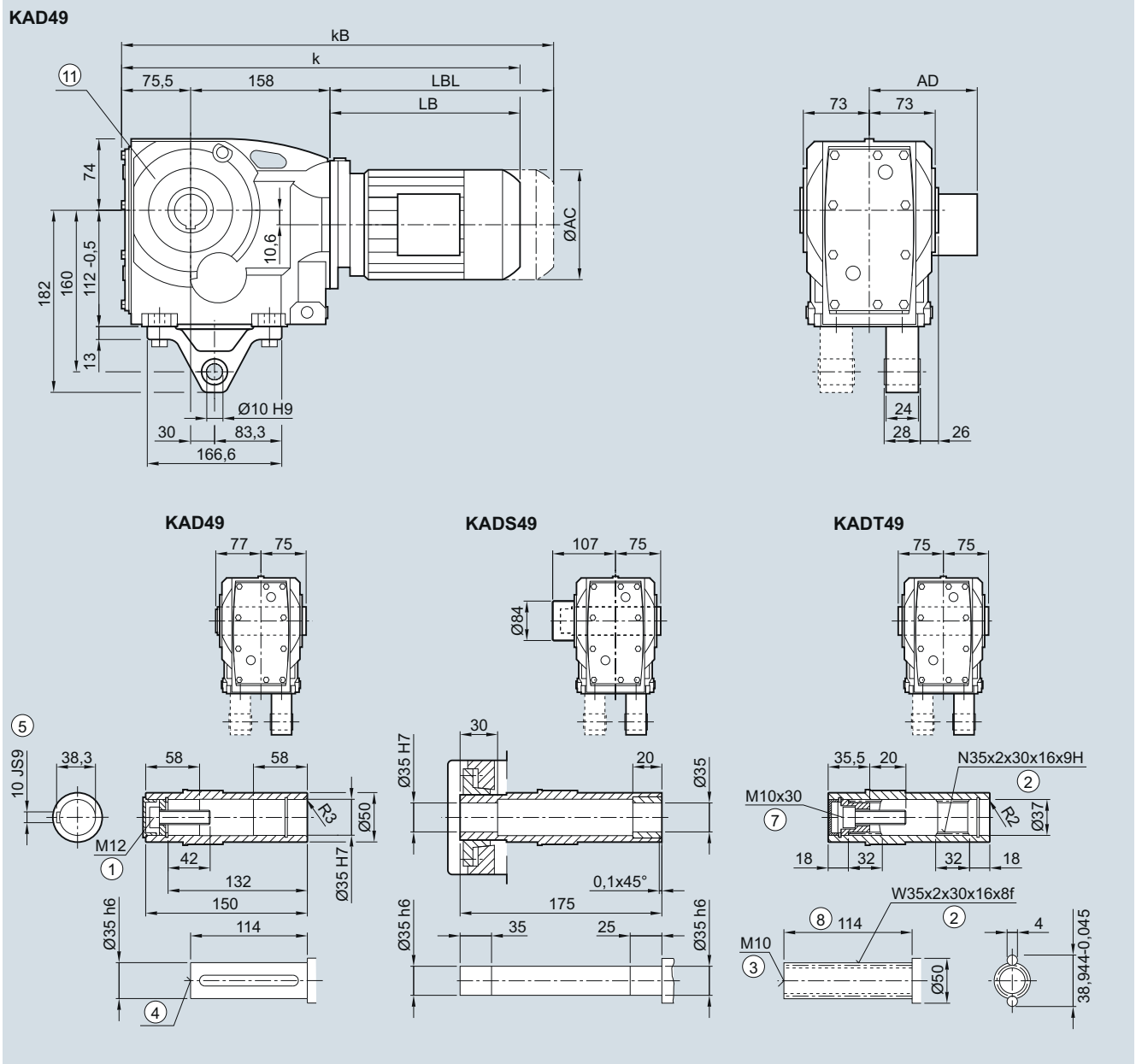
Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0
k	418.0	450.0	469.0	514.0	549.0	575.5	615.5	632.0	667.0	642.0	676.5	695.0	745.0
kB	462.5	505.0	524.0	574.0	609.0	645.5	685.5	710.5	745.5	715.0	749.5	799.5	849.5
LB	184.5	216.5	235.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LBL	229.0	271.5	290.5	340.5	375.5	412.0	452.0	477.0	512.0	481.5	516.0	566.0	616.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑨ Use bores only for foot-mounted design    1) AD depends on the motor options, for other dimensions see page 8/36.

KAD.49 gearbox in a shaft-mounted design

KAD031, KADS031, KADT031

5

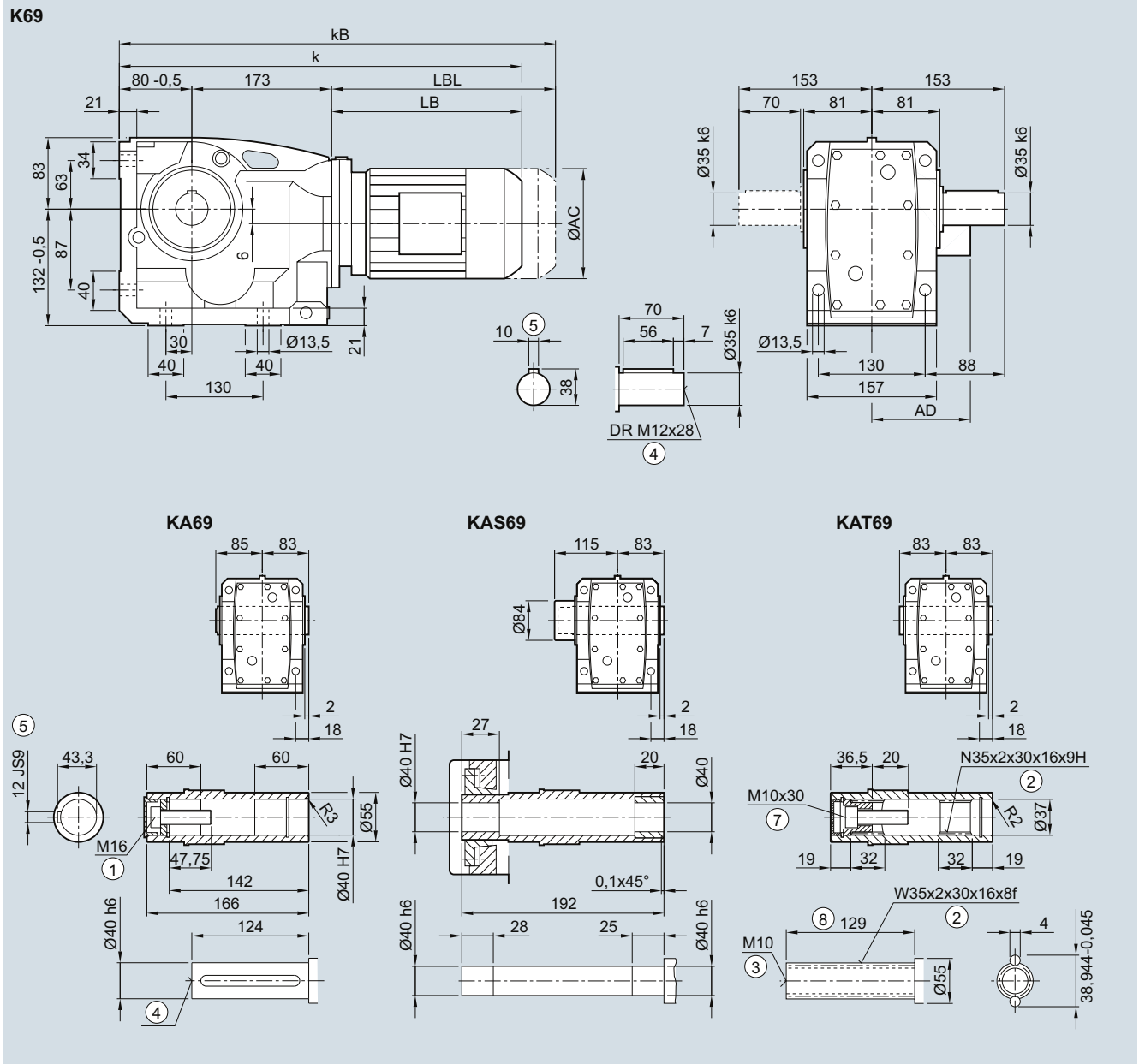


Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0
k	418.0	450.0	469.0	514.0	549.0	575.5	615.5	632.0	667.0	642.0	676.5	695.0	745.0
kB	462.5	505.0	524.0	574.0	609.0	645.5	685.5	710.5	745.5	715.0	749.5	799.5	849.5
LB	184.5	216.5	235.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LBL	229.0	271.5	290.5	340.5	375.5	412.0	452.0	477.0	512.0	481.5	516.0	566.0	616.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ Use bores only for housing flange design    1) AD depends on the motor options, for other dimensions see page 8/36.

**K..69 gearbox in a foot-mounted design**

**K030, KA030, KAS030, KAT030**



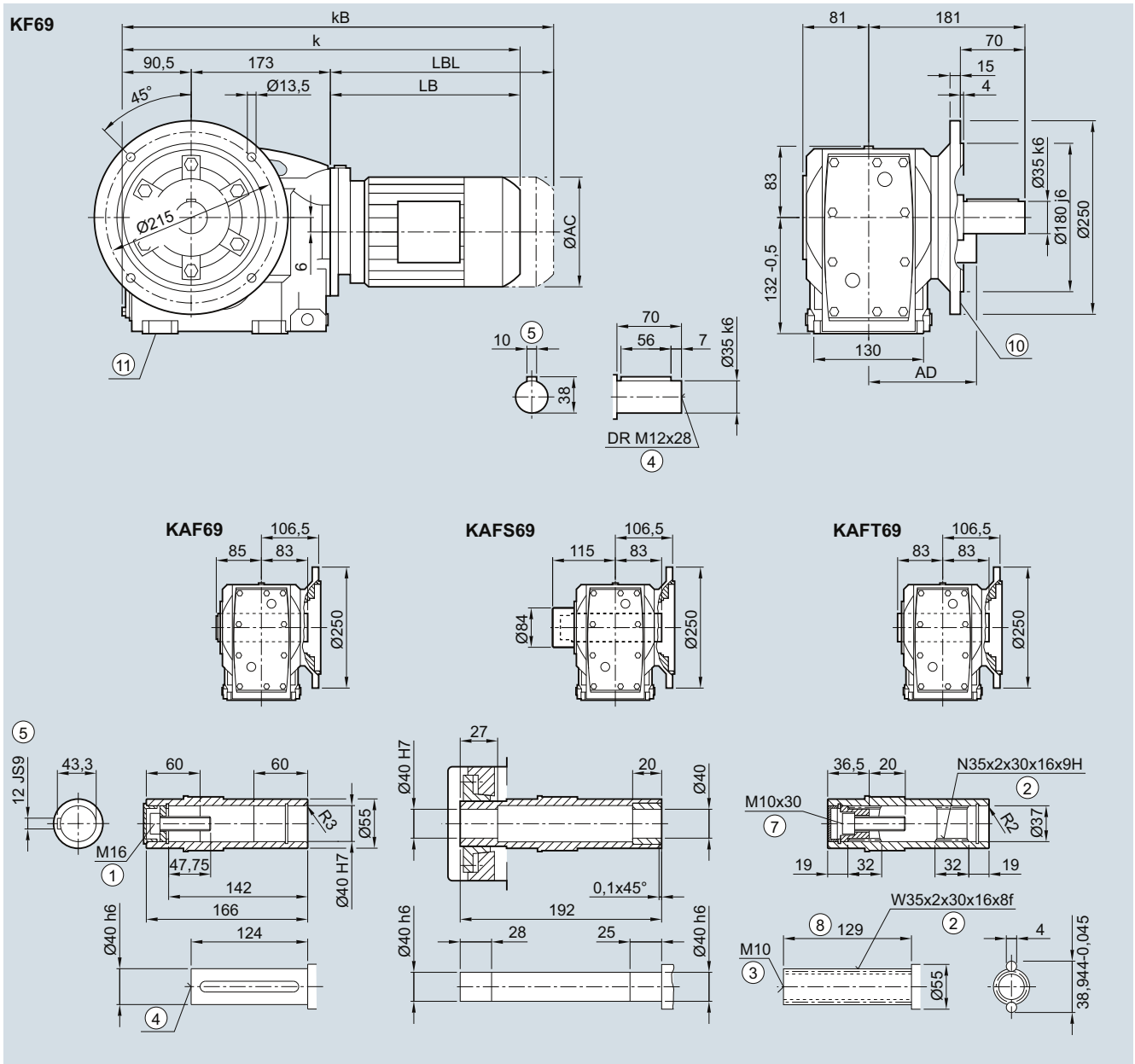
Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0
k	437.5	469.5	488.5	533.5	568.5	595.0	635.0	651.5	686.5	661.5	696.0	714.5	764.5
kB	482.0	524.5	543.5	593.5	628.5	665.0	705.0	730.0	765.0	734.5	769.0	819.0	869.0
LB	184.5	216.5	235.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LBL	229.0	271.5	290.5	340.5	375.5	412.0	452.0	477.0	512.0	481.5	516.0	566.0	616.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 1) AD depends on the motor options, for other dimensions see page 8/36.

K.F.69 gearbox in a flange-mounted design

KF030, KAF030, KAFS030, KAFT030

5



Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0
k	448.0	480.0	499.0	544.0	579.0	605.5	645.5	662.0	697.0	672.0	706.5	725.0	775.0
kB	492.5	535.0	554.0	604.0	639.0	675.5	715.5	740.5	775.5	745.0	779.5	829.5	879.5
LB	184.5	216.5	235.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LBL	229.0	271.5	290.5	340.5	375.5	412.0	452.0	477.0	512.0	481.5	516.0	566.0	616.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm

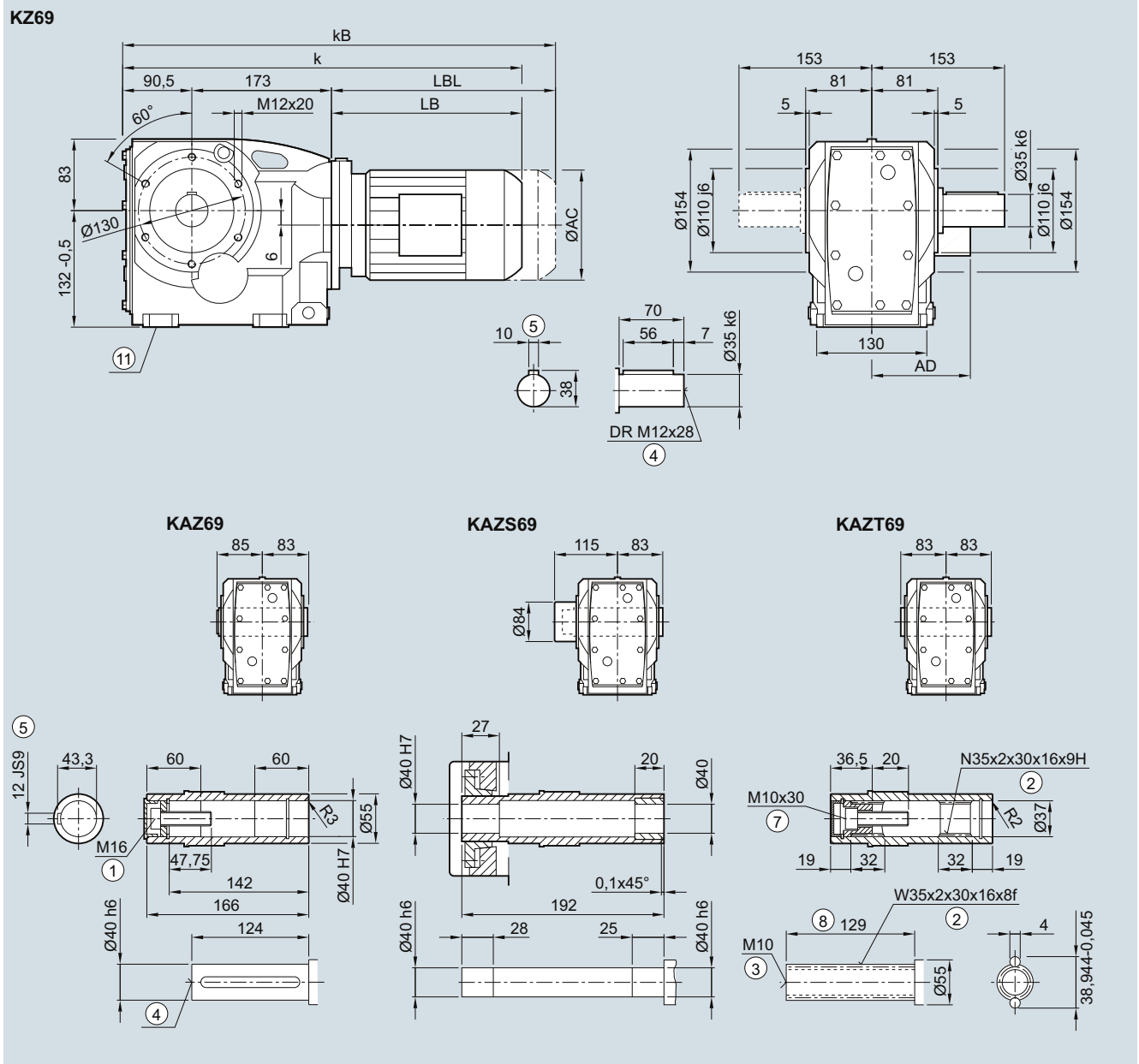
⑩ For inner contour see page 5/136

⑪ Use bores only for foot-mounted design

1) AD depends on the motor options, for other dimensions see page 8/36.

**K.Z.69 gearbox in a housing flange design**

**KZ030, KAZ030, KAZS030, KAZT030**



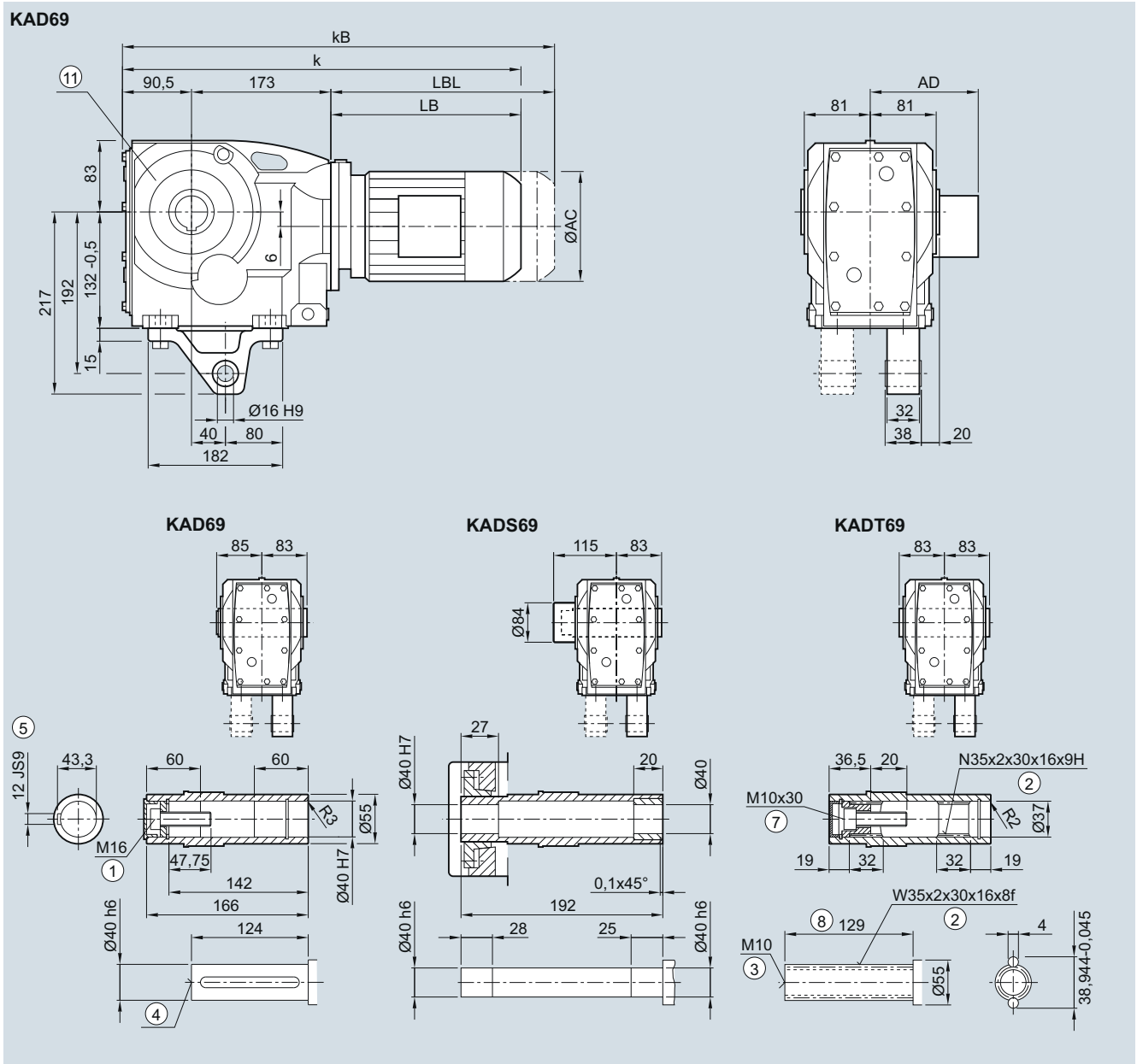
Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0
k	448.0	480.0	499.0	544.0	579.0	605.5	645.5	662.0	697.0	672.0	706.5	725.0	775.0
kB	492.5	535.0	554.0	604.0	639.0	675.5	715.5	740.5	775.5	745.0	779.5	829.5	879.5
LB	184.5	216.5	235.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LBL	229.0	271.5	290.5	340.5	375.5	412.0	452.0	477.0	512.0	481.5	516.0	566.0	616.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ Use bores only for foot-mounted design  
 1) AD depends on the motor options, for other dimensions see page 8/36.

**KAD.69 gearbox in a shaft-mounted design**

**KAD030, KADS030, KADT030**

**5**



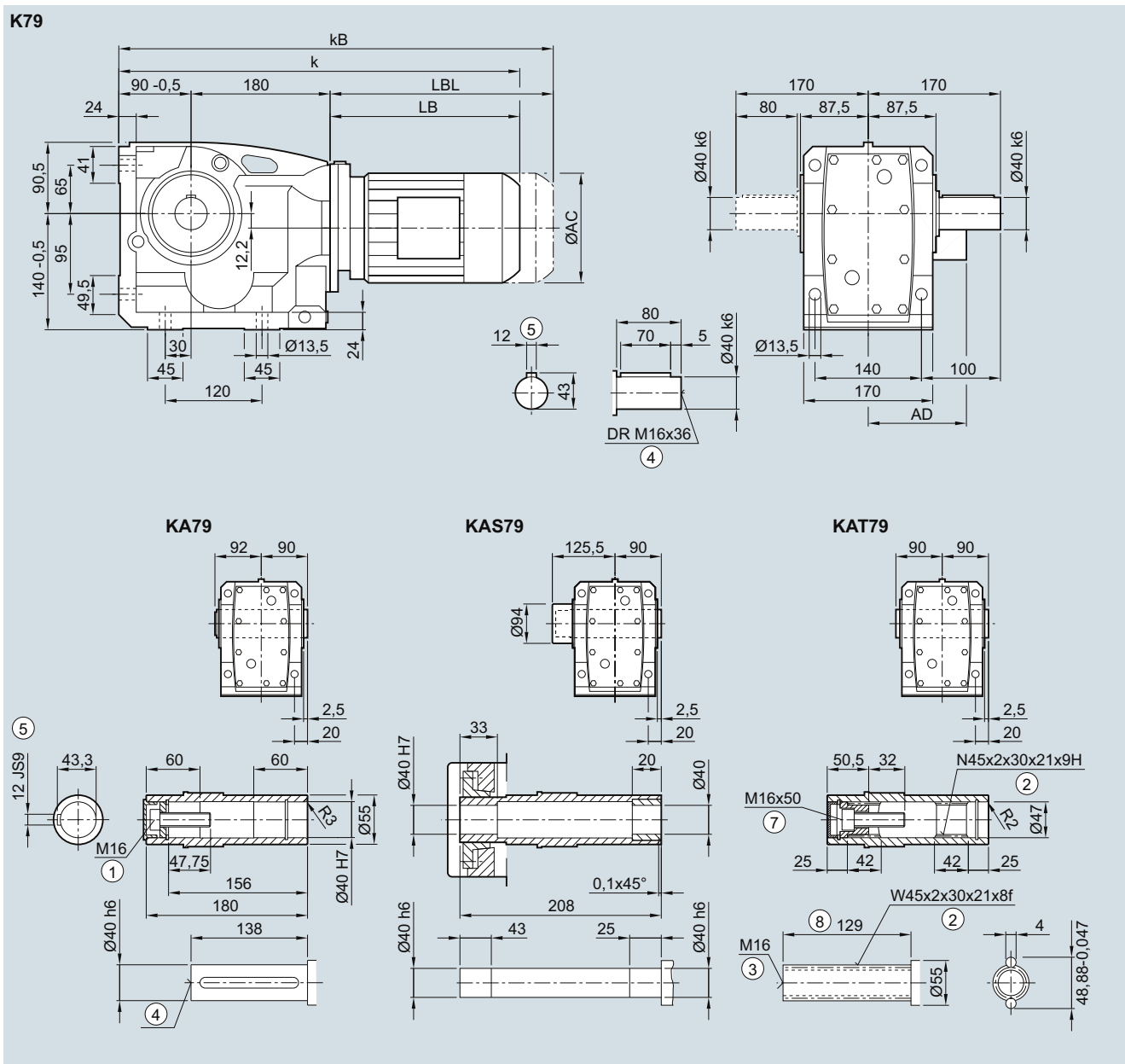
Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0
k	448.0	480.0	499.0	544.0	579.0	605.5	645.5	662.0	697.0	672.0	706.5	725.0	775.0
kB	492.5	535.0	554.0	604.0	639.0	675.5	715.5	740.5	775.5	745.0	779.5	829.5	879.5
LB	184.5	216.5	235.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LBL	229.0	271.5	290.5	340.5	375.5	412.0	452.0	477.0	512.0	481.5	516.0	566.0	616.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ Use bores only for housing flange design    1) AD depends on the motor options, for other dimensions see page 8/36.



**K..79 gearbox in a foot-mounted design**

**K030, KA030, KAS030, KAT030**



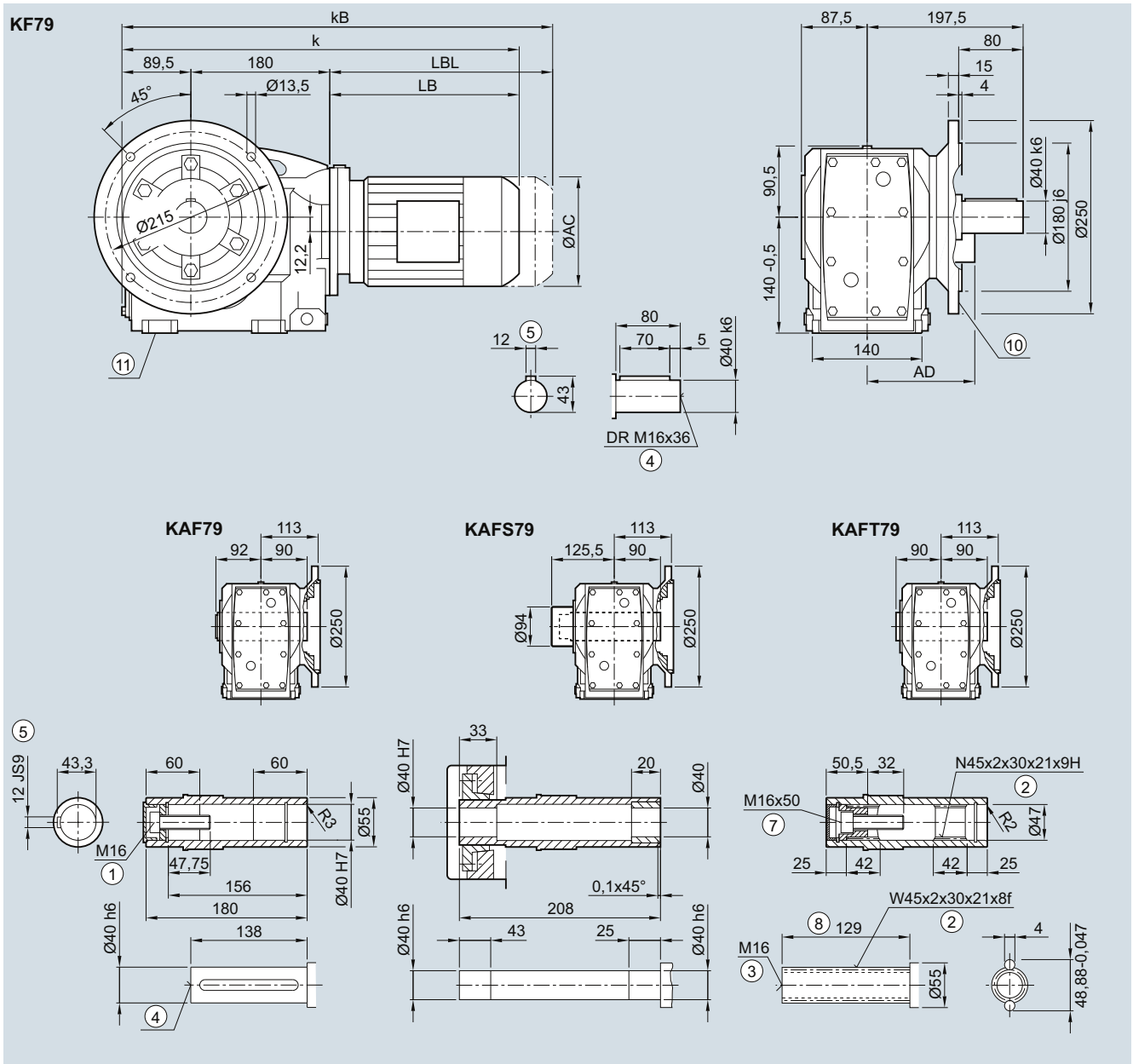
Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0
k	454.5	486.5	505.5	550.5	585.5	612.0	652.0	668.5	703.5	678.5	713.0	731.5	781.5
kB	499.0	541.5	560.5	610.5	645.5	682.0	722.0	747.0	782.0	751.5	786.0	836.0	886.0
LB	184.5	216.5	235.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LBL	229.0	271.5	290.5	340.5	375.5	412.0	452.0	477.0	512.0	481.5	516.0	566.0	616.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 1) AD depends on the motor options, for other dimensions see page 8/36.

**K.F.79 gearbox in a flange-mounted design**

**KF030, KAF030, KAFS030, KAFT030**

**5**

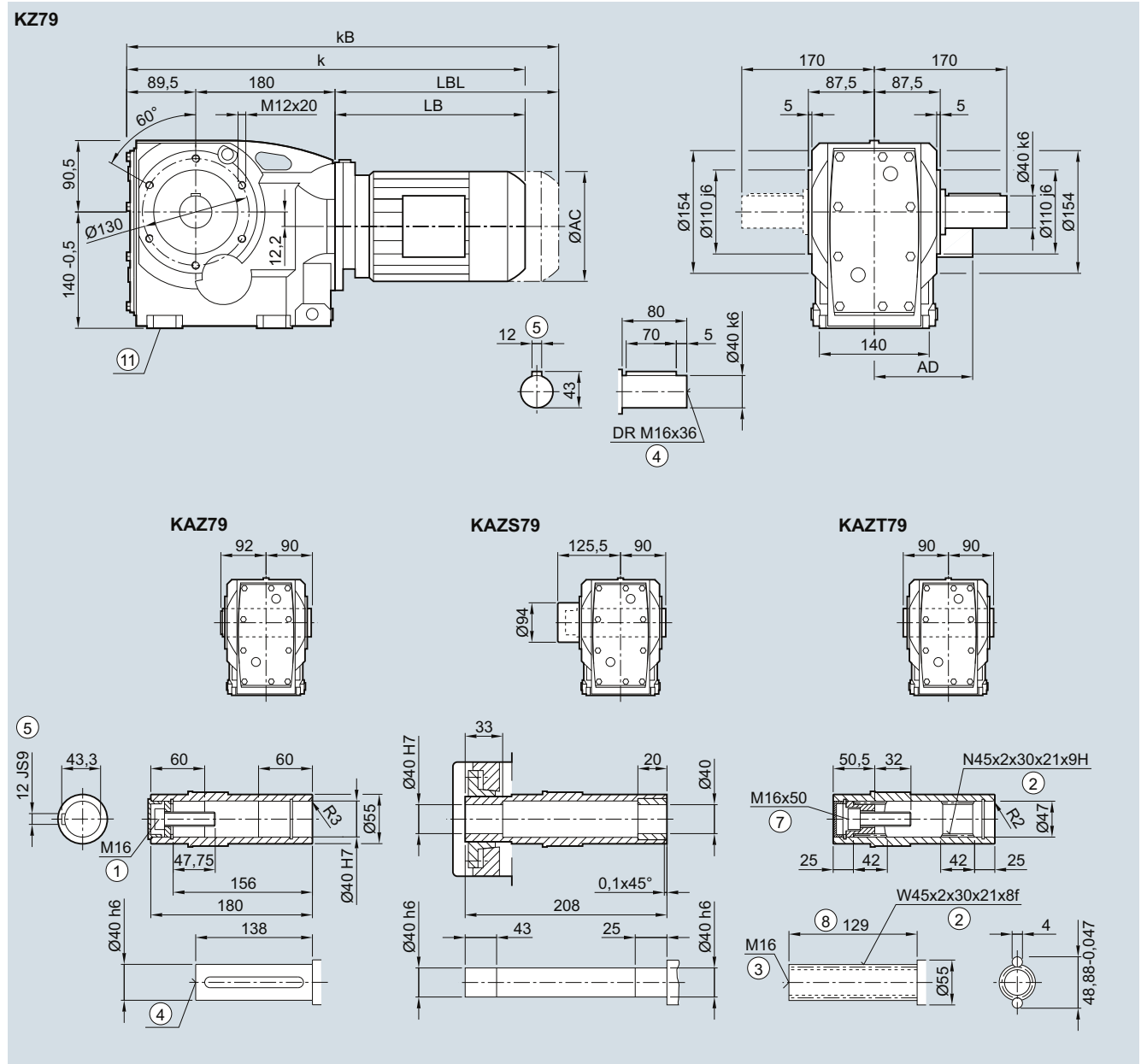


Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0
k	454.0	486.0	505.0	550.0	585.0	611.5	651.5	668.0	703.0	678.5	712.5	731.0	781.0
kB	498.5	541.0	560.0	610.0	645.0	681.5	721.5	746.5	781.5	751.0	785.5	835.5	885.5
LB	184.5	216.5	235.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LBL	229.0	271.5	290.5	340.5	375.5	412.0	452.0	477.0	512.0	481.5	516.0	566.0	616.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ For inner contour see page 5/136    ⑪ Use bores only for foot-mounted design  
 1) AD depends on the motor options, for other dimensions see page 8/36.

**K.Z.79 gearbox in a housing flange design**

**KZ030, KAZ030, KAZS030, KAZT030**



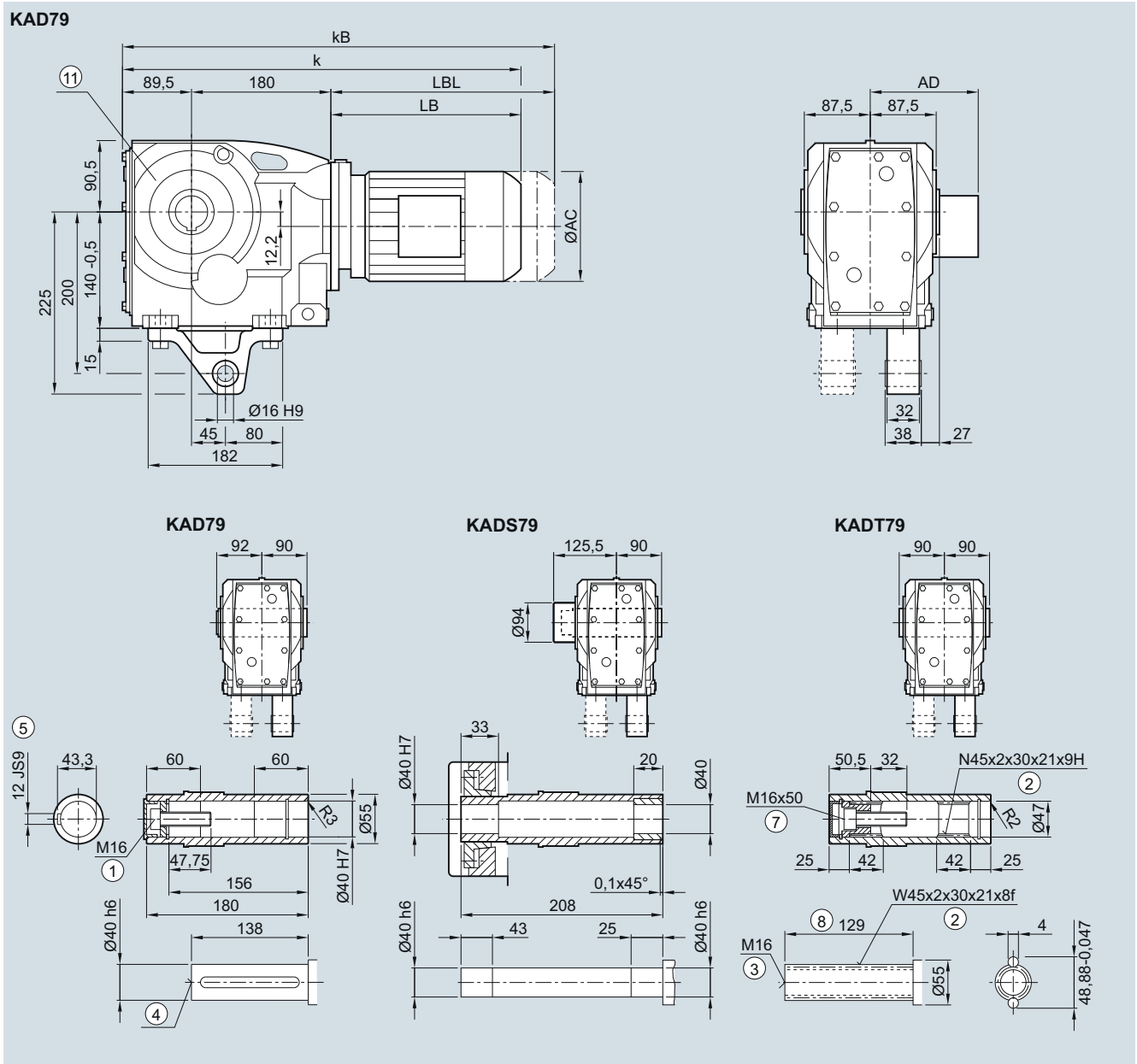
Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0
k	454.0	486.0	505.0	550.0	585.0	611.5	651.5	668.0	703.0	678.5	712.5	731.0	781.0
kB	498.5	541.0	560.0	610.0	645.0	681.5	721.5	746.5	781.5	751.0	785.5	835.5	885.5
LB	184.5	216.5	235.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LBL	229.0	271.5	290.5	340.5	375.5	412.0	452.0	477.0	512.0	481.5	516.0	566.0	616.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑨ Use bores only for foot-mounted design    ①) AD depends on the motor options, for other dimensions see page 8/36.

**KAD.79 gearbox in a shaft-mounted design**

**KAD030, KADS030, KADT030**

**5**

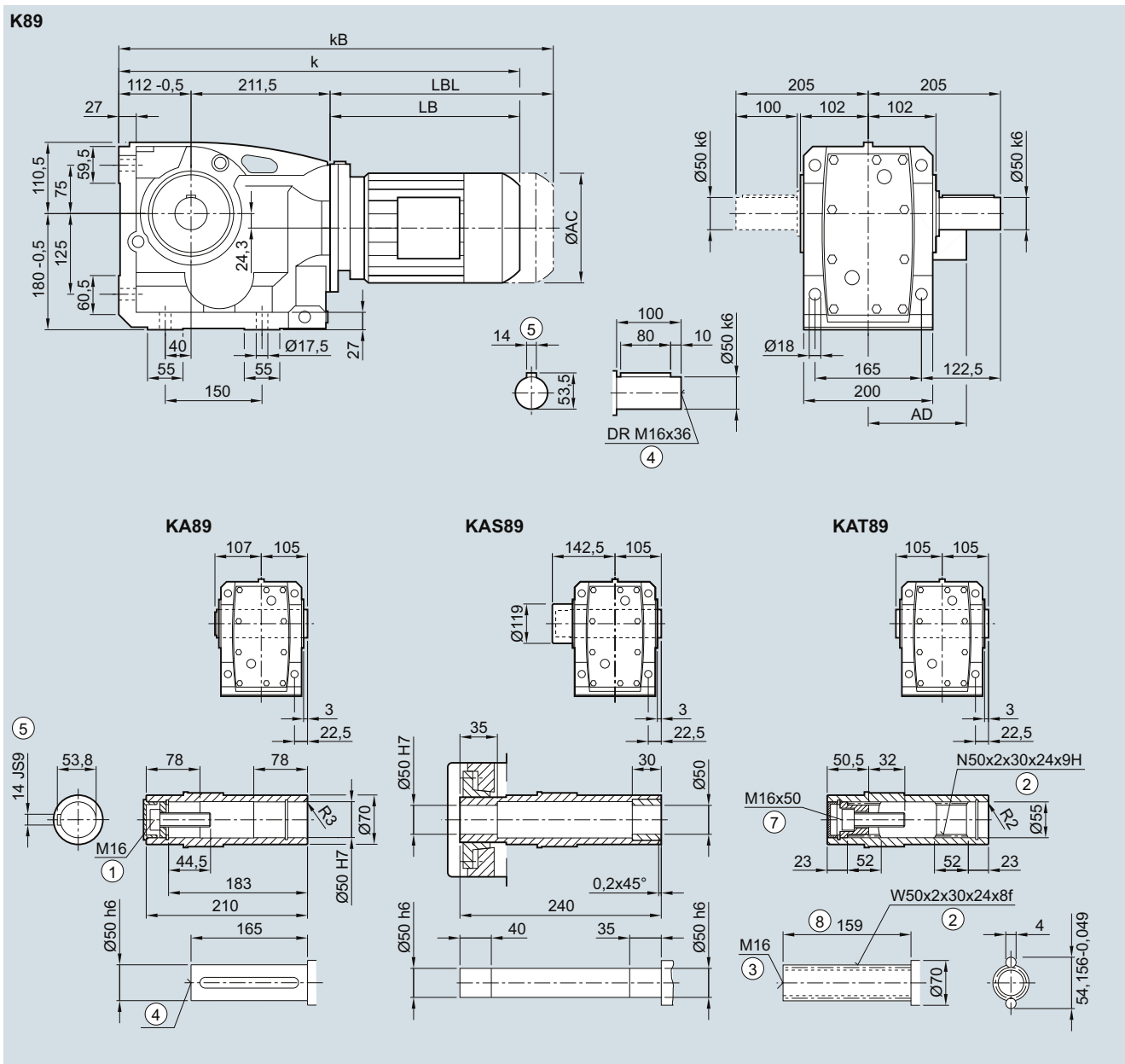


Motor	LA 63	71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z
AC	117.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0
AD <sup>1)</sup>	124.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0
k	454.0	486.0	505.0	550.0	585.0	611.5	651.5	668.0	703.0	678.5	712.5	731.0	781.0
kB	498.5	541.0	560.0	610.0	645.0	681.5	721.5	746.5	781.5	751.0	785.5	835.5	885.5
LB	184.5	216.5	235.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LBL	229.0	271.5	290.5	340.5	375.5	412.0	452.0	477.0	512.0	481.5	516.0	566.0	616.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ Use bores only for housing flange design    1) AD depends on the motor options, for other dimensions see page 8/36.

**K..89 gearbox in a foot-mounted design**

**K030, KA030, KAS030, KAT030**



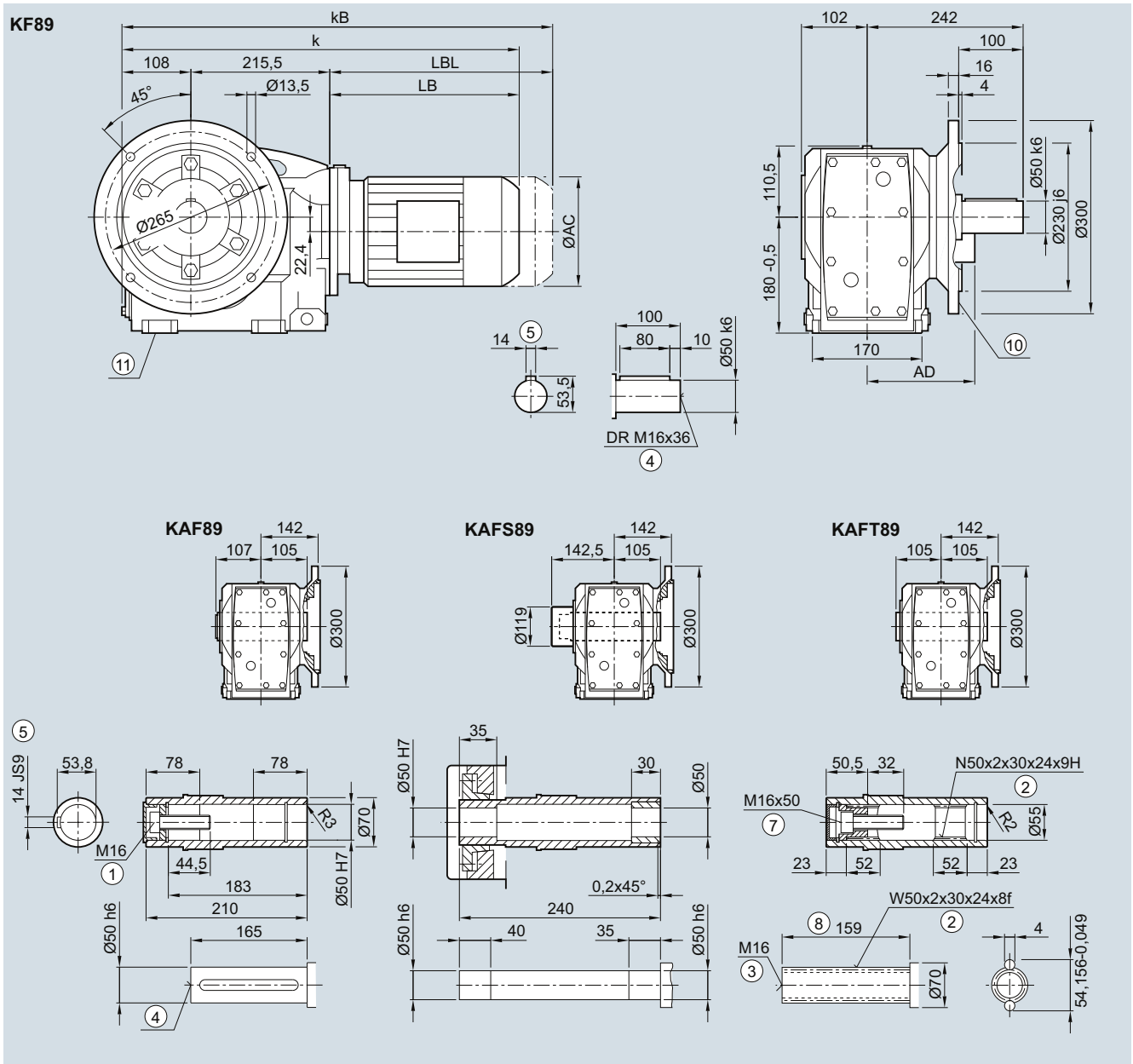
Motor	LA 71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z	160	160Z
AC	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0
AD <sup>1)</sup>	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0
k	538.0	557.0	598.0	633.0	659.5	699.5	716.0	751.0	726.0	751.0	779.0	829.0	861.0	921.0
kB	593.0	612.0	658.0	693.0	729.5	769.5	794.5	829.5	799.0	824.0	883.5	933.5	977.0	1 037.0
LB	214.5	233.5	274.5	309.5	336.0	376.0	392.5	427.5	402.5	427.5	455.5	505.5	537.5	597.5
LBL	269.5	288.5	334.5	369.5	406.0	446.0	471.0	506.0	475.5	500.5	560.0	610.0	653.5	713.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

**K.F.89 gearbox in a flange-mounted design**

**KF030, KAF030, KAFS030, KAFT030**

**5**

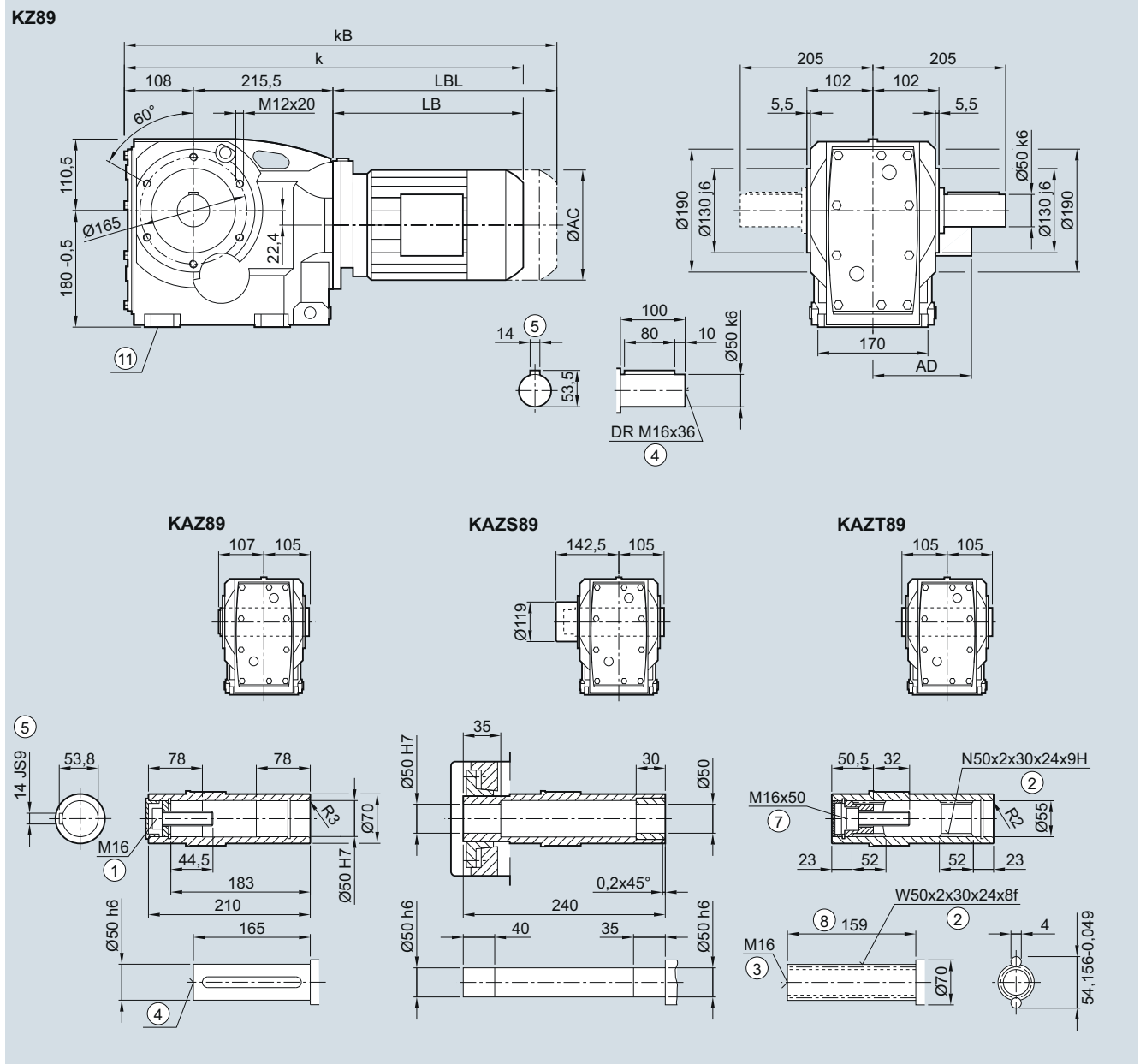


Motor	LA 71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z	160	160Z
AC	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0
AD <sup>1)</sup>	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0
k	538.0	557.0	598.0	633.0	659.5	699.5	716.0	751.0	726.0	751.0	779.0	829.0	861.0	921.0
kB	593.0	612.0	658.0	693.0	729.5	769.5	794.5	829.5	799.0	824.0	883.5	933.5	977.0	1 037.0
LB	214.5	233.5	274.5	309.5	336.0	376.0	392.5	427.5	402.5	427.5	455.5	505.5	537.5	597.5
LBL	269.5	288.5	334.5	369.5	406.0	446.0	471.0	506.0	475.5	500.5	560.0	610.0	653.5	713.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ For inner contour see page 5/136    ⑪ Use bores only for foot-mounted design  
 1) AD depends on the motor options, for other dimensions see page 8/36.

**K.Z.89 gearbox in a housing flange design**

**KZ030, KAZ030, KAZS030, KAZT030**



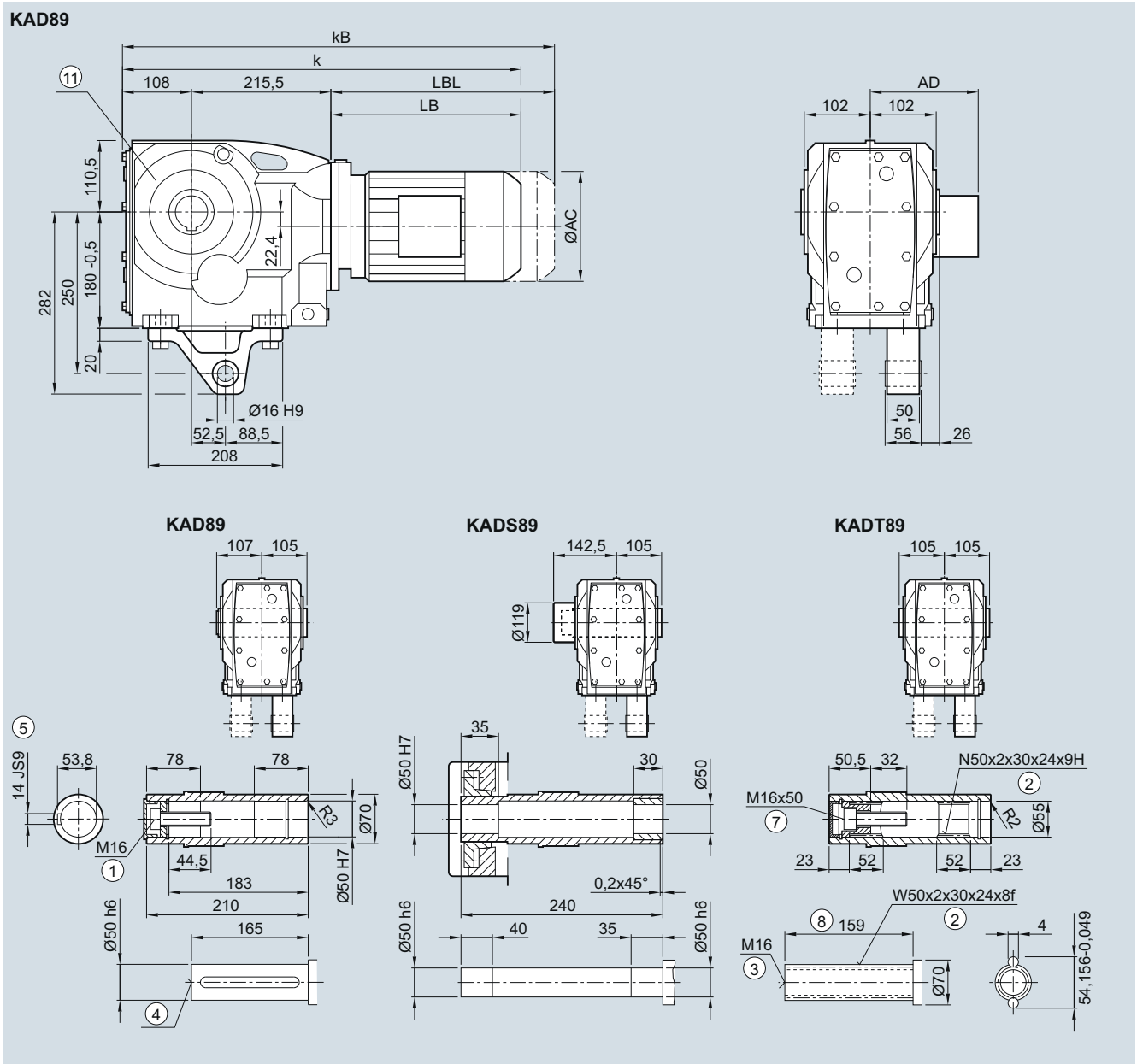
Motor	LA 71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z	160	160Z
AC	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0
AD <sup>1)</sup>	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0
k	538.0	557.0	598.0	633.0	659.5	699.5	716.0	751.0	726.0	751.0	779.0	829.0	861.0	921.0
kB	593.0	612.0	658.0	693.0	729.5	769.5	794.5	829.5	799.0	824.0	883.5	933.5	977.0	1 037.0
LB	214.5	233.5	274.5	309.5	336.0	376.0	392.5	427.5	402.5	427.5	455.5	505.5	537.5	597.5
LBL	269.5	288.5	334.5	369.5	406.0	446.0	471.0	506.0	475.5	500.5	560.0	610.0	653.5	713.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑨ Use bores only for foot-mounted design    1) AD depends on the motor options, for other dimensions see page 8/36.

**KAD.89 gearbox in a shaft-mounted design**

**KAD031, KADS031, KADT031**

**5**



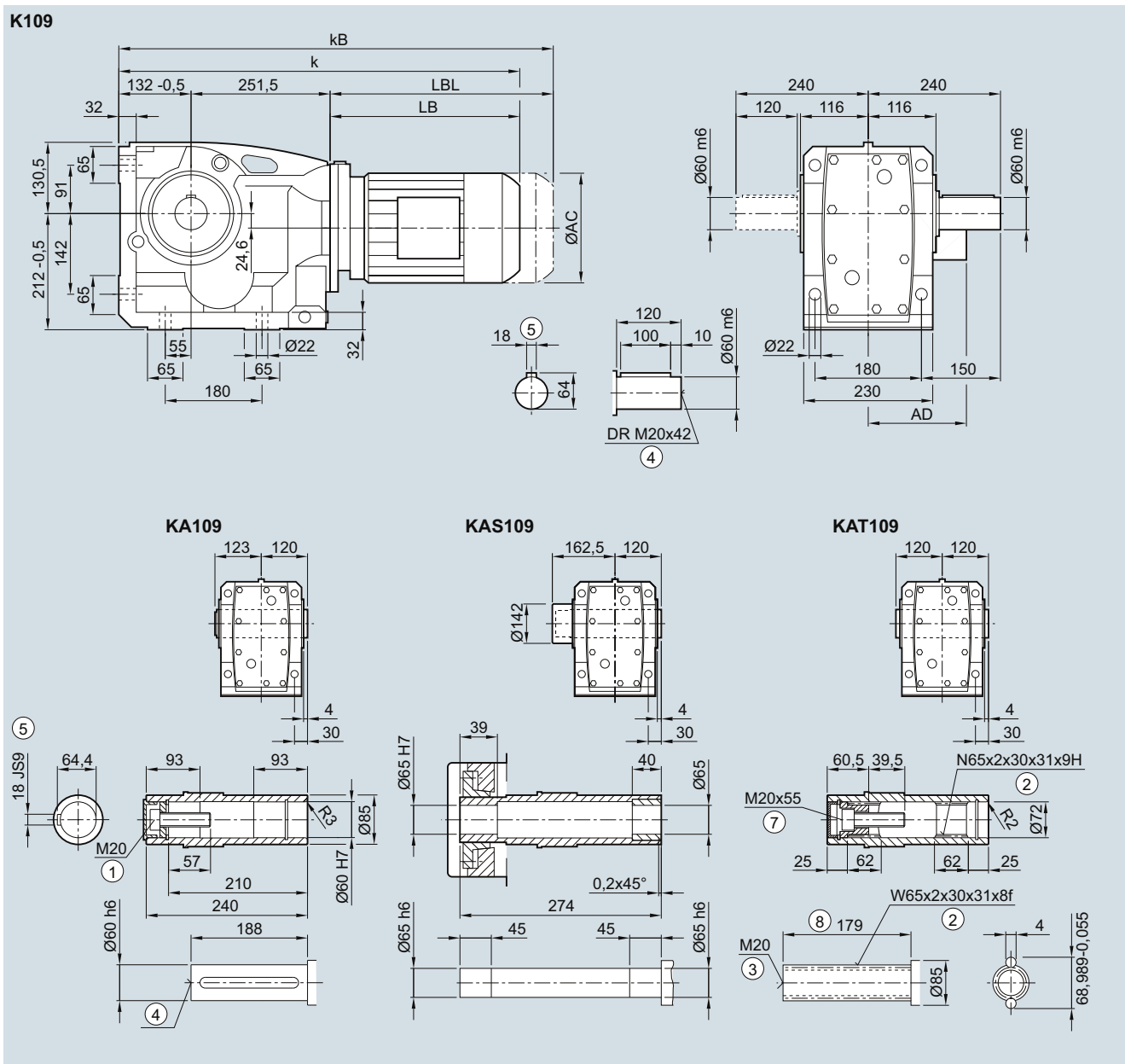
Motor	LA 71	71Z	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z	160	160Z
AC	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0
AD <sup>1)</sup>	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0
k	538.0	557.0	598.0	633.0	659.5	699.5	716.0	751.0	726.0	751.0	779.0	829.0	861.0	921.0
kB	593.0	612.0	658.0	693.0	729.5	769.5	794.5	829.5	799.0	824.0	883.5	933.5	977.0	1 037.0
LB	214.5	233.5	274.5	309.5	336.0	376.0	392.5	427.5	402.5	427.5	455.5	505.5	537.5	597.5
LBL	269.5	288.5	334.5	369.5	406.0	446.0	471.0	506.0	475.5	500.5	560.0	610.0	653.5	713.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ Use bores only for housing flange design    1) AD depends on the motor options, for other dimensions see page 8/36.



**K..109 gearbox in a foot-mounted design**

**K030, KA030, KAS030, KAT030**



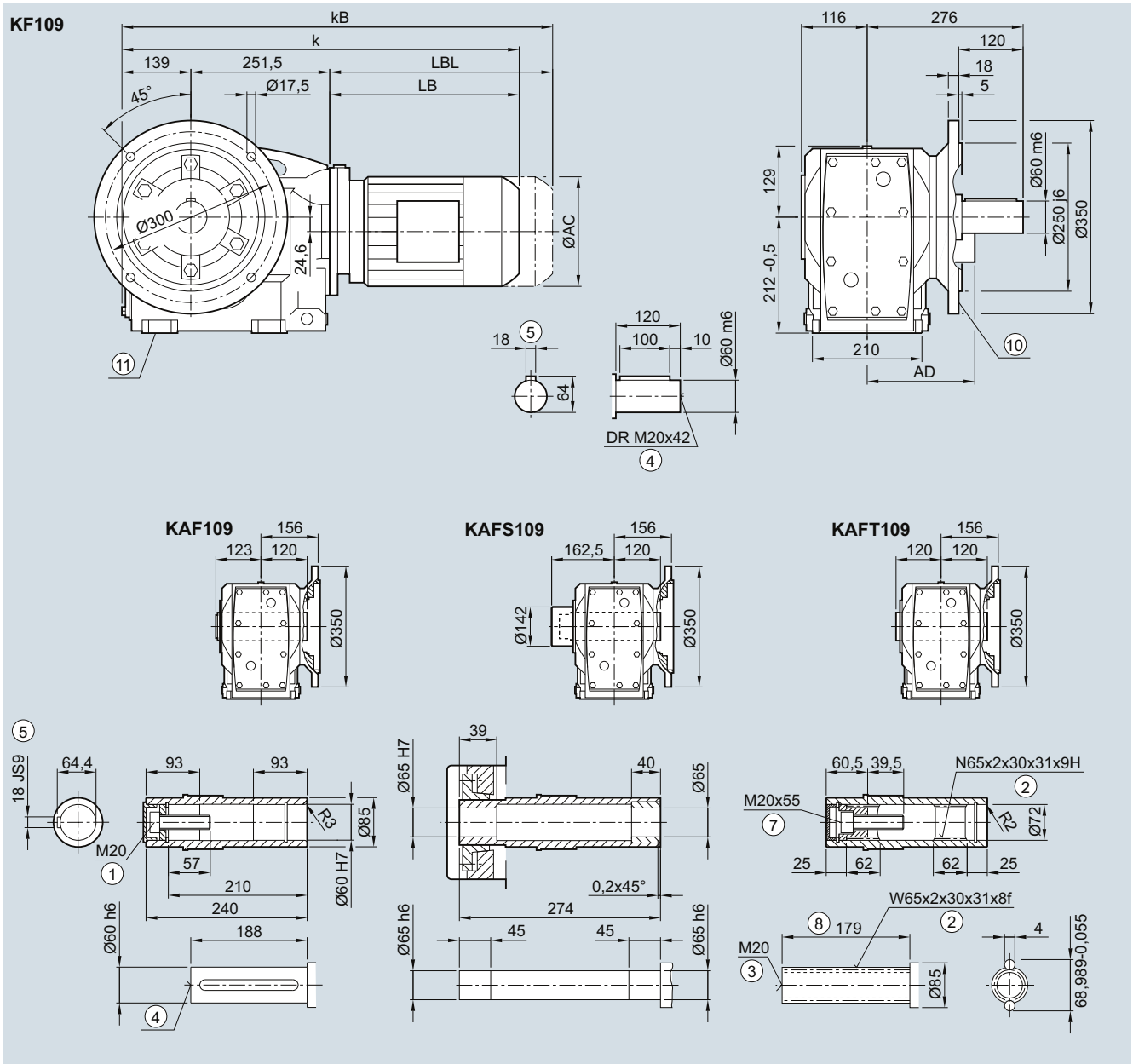
Motor	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z	160	160Z	LES 180	180Z
AC	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5
AD <sup>1)</sup>	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0
k	645.0	680.0	706.5	746.5	759.0	794.0	769.0	794.0	822.0	872.0	904.0	964.0	977.0	1 007.0
kB	705.0	740.0	776.5	816.5	837.5	872.5	842.0	867.0	926.5	976.5	1 020.0	1 080.0	1 106.0	1 136.0
LB	261.5	296.5	323.0	363.0	375.5	410.5	385.5	410.5	438.5	488.5	520.5	580.5	593.5	623.5
LBL	321.5	356.5	393.0	433.0	454.0	489.0	458.5	483.5	543.0	593.0	636.5	696.5	722.5	752.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 1) AD depends on the motor options, for other dimensions see page 8/36.

**K.F.109 gearbox in a flange-mounted design**

**KF030, KAF030, KAFS030, KAFT030**

**5**

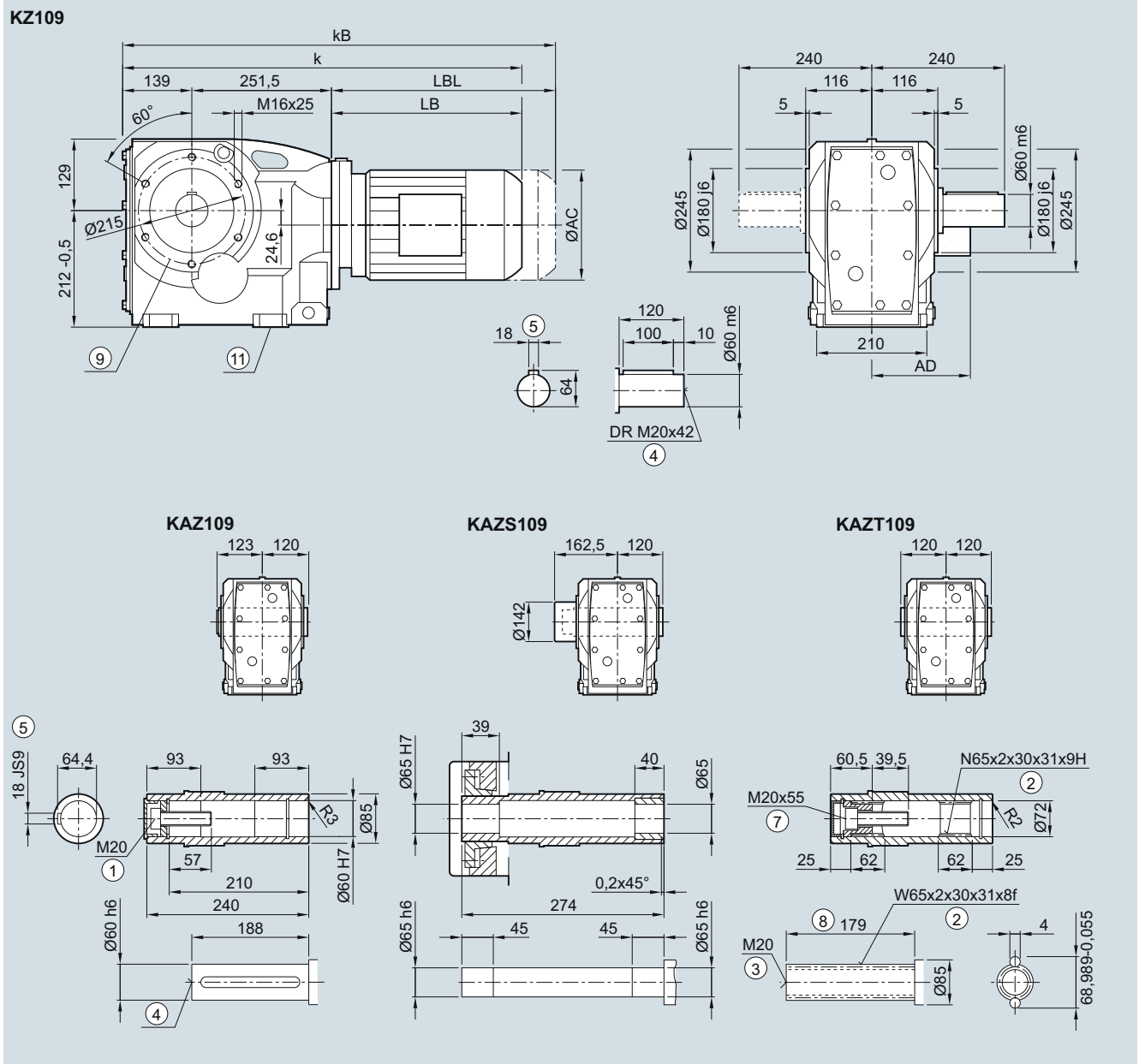


Motor	LE											LES		
	80	80Z	90	90Z	100	100Z	112	112Z	132	132Z	160	160Z	180	180Z
AC	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5
AD <sup>1)</sup>	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0
k	652.0	687.0	713.5	753.5	766.0	801.0	776.0	801.0	829.0	879.0	911.0	971.0	984.0	1 014.0
kB	712.0	747.0	783.5	823.5	844.5	879.5	849.0	874.0	933.5	983.5	1 027.0	1 087.0	1 113.0	1 143.0
LB	261.5	296.5	323.0	363.0	375.5	410.5	385.5	410.5	438.5	488.5	520.5	580.5	593.5	623.5
LBL	321.5	356.5	393.0	433.0	454.0	489.0	458.5	483.5	543.0	593.0	636.5	696.5	722.5	752.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ For inner contour see page 5/136    ⑪ Use bores only for foot-mounted design  
 1) AD depends on the motor options, for other dimensions see page 8/36.

**K.Z.109 gearbox in a housing flange design**

**KZ030, KAZ030, KAZS030, KAZT030**



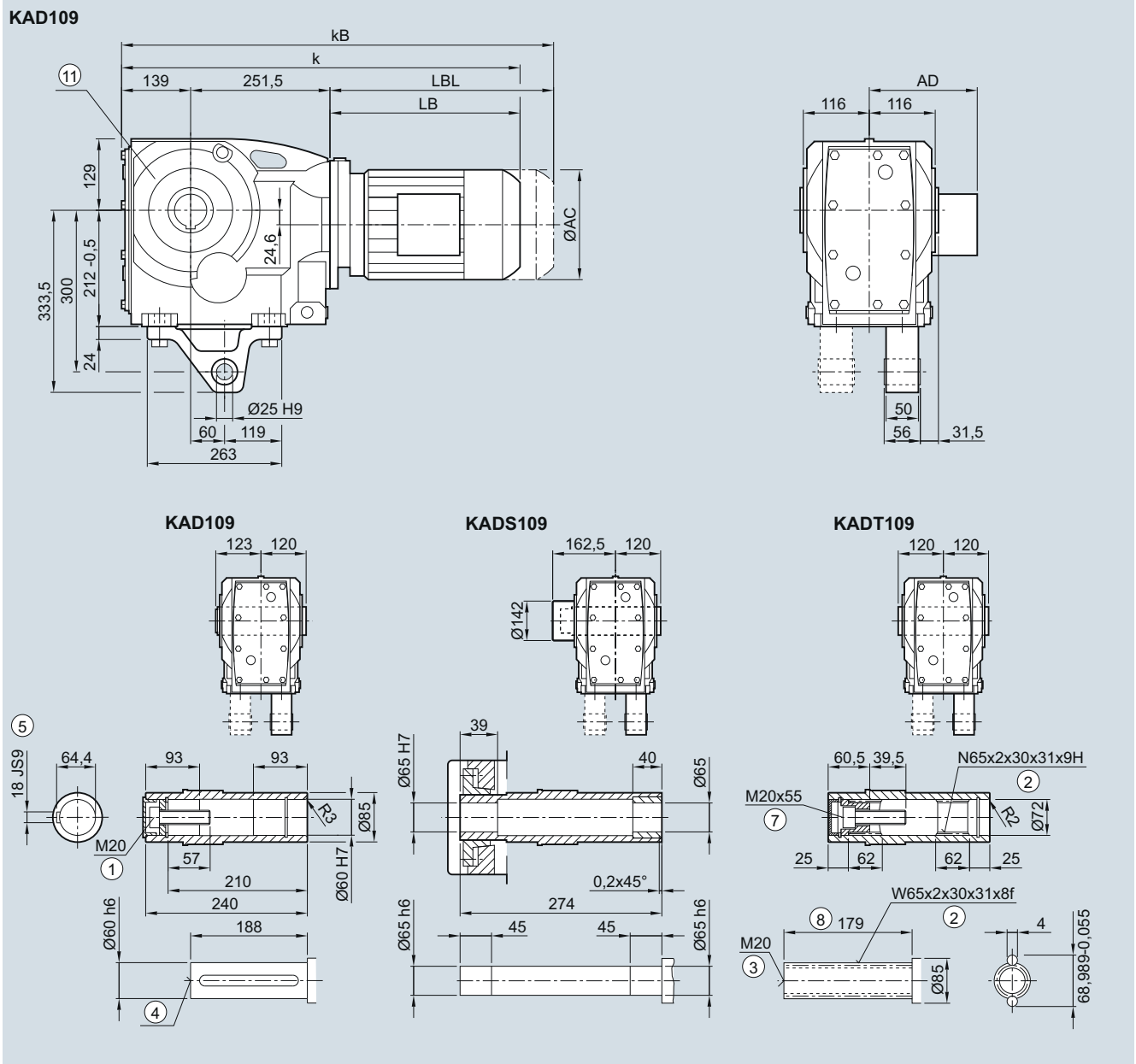
Motor	LE												LES	
	80	80Z	90	90Z	100	100Z	112	112Z	132	132Z	160	160Z	180	180Z
AC	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5
AD <sup>1)</sup>	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0
k	652.0	687.0	713.5	753.5	766.0	801.0	776.0	801.0	829.0	879.0	911.0	971.0	984.0	1 014.0
kB	712.0	747.0	783.5	823.5	844.5	879.5	849.0	874.0	933.5	983.5	1 027.0	1 087.0	1 113.0	1 143.0
LB	261.5	296.5	323.0	363.0	375.5	410.5	385.5	410.5	438.5	488.5	520.5	580.5	593.5	623.5
LBL	321.5	356.5	393.0	433.0	454.0	489.0	458.5	483.5	543.0	593.0	636.5	696.5	722.5	752.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑨ For pin holes see page 5/137    ⑩ Use bores only for foot-mounted design  
 1) AD depends on the motor options, for other dimensions see page 8/36.

**KAD.109 gearbox in a shaft-mounted design**

**KAD030, KADS030, KADT030**

**5**

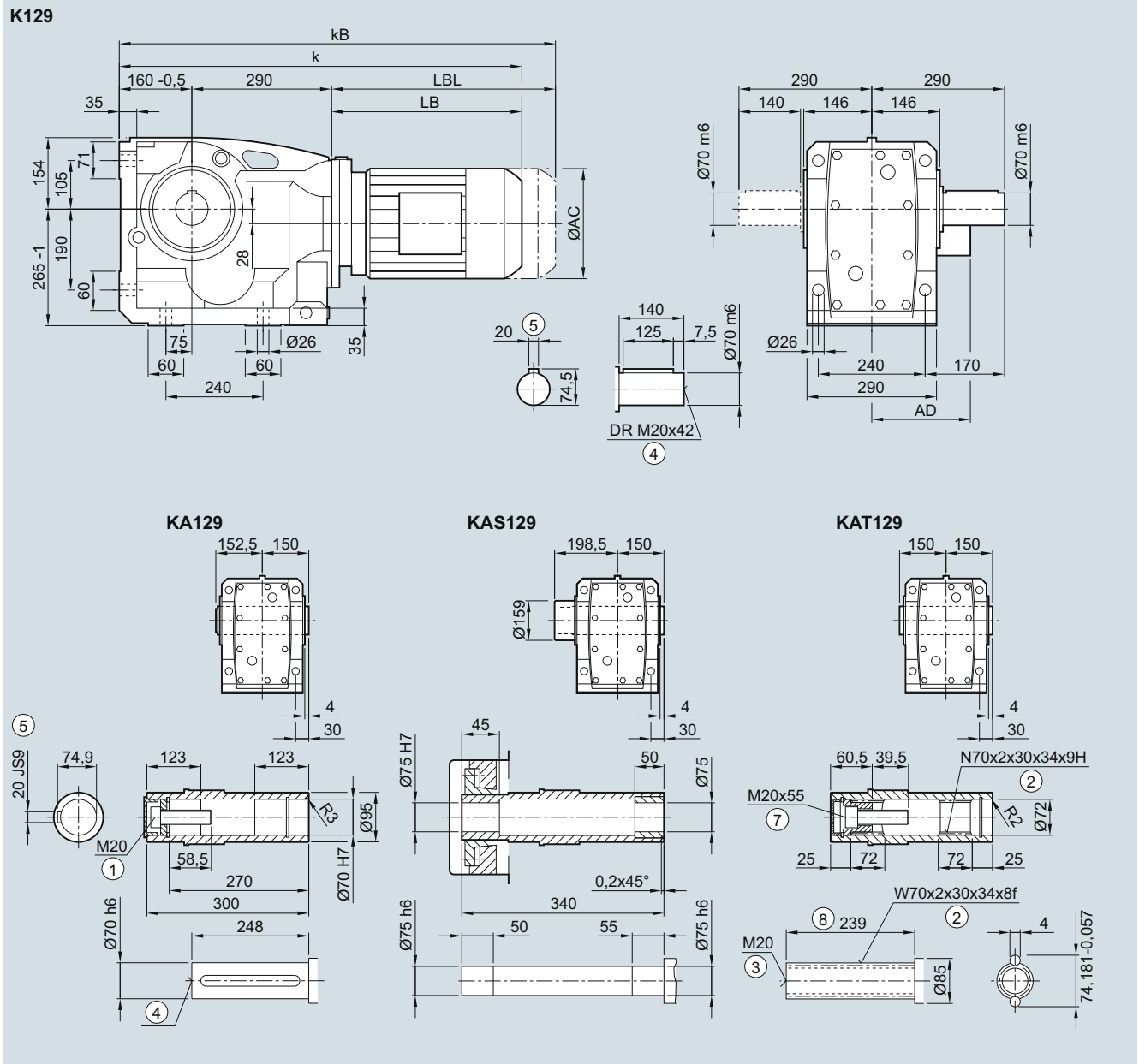


Motor	LE 80	80Z	90	90Z	100	100Z	112	112Z	132	132Z	160	160Z	LES 180	180Z
AC	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5
AD <sup>1)</sup>	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0
k	652.0	687.0	713.5	753.5	766.0	801.0	776.0	801.0	829.0	879.0	911.0	971.0	984.0	1 014.0
kB	712.0	747.0	783.5	823.5	844.5	879.5	849.0	874.0	933.5	983.5	1 027.0	1 087.0	1 113.0	1 143.0
LB	261.5	296.5	323.0	363.0	375.5	410.5	385.5	410.5	438.5	488.5	520.5	580.5	593.5	623.5
LBL	321.5	356.5	393.0	433.0	454.0	489.0	458.5	483.5	543.0	593.0	636.5	696.5	722.5	752.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ Use bores only for housing flange design    1) AD depends on the motor options, for other dimensions see page 8/36.

**K..129 gearbox in a foot-mounted design**

**K030, KA030, KAS030, KAT030**



Motor	LES										LES					
	LE 90	90Z	100	100Z	112	112Z	132	132Z	160	160Z	180	180Z	200	200Z	225	225Y
AC	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5	392.5	392.5	439.0	439.0
AD <sup>1)</sup>	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0	315.0	315.0	382.0	382.0
k	766.0	806.0	816.5	851.5	826.5	851.5	879.5	929.5	961.5	1 021.5	1 034.5	1 064.5	1 102.5	1 127.5	1 148.0	1 208.0
kB	836.0	876.0	895.0	930.0	899.5	924.5	984.0	1 034.0	1 077.5	1 137.5	1 163.5	1 193.5	1 249.5	1 274.5	1 376.0	1 436.0
LB	316.0	356.0	366.5	401.5	376.5	401.5	429.5	479.5	511.5	571.5	584.5	614.5	652.5	677.5	698.0	758.0
LBL	386.0	426.0	445.0	480.0	449.5	474.5	534.0	584.0	627.5	687.5	713.5	743.5	799.5	824.5	926	986

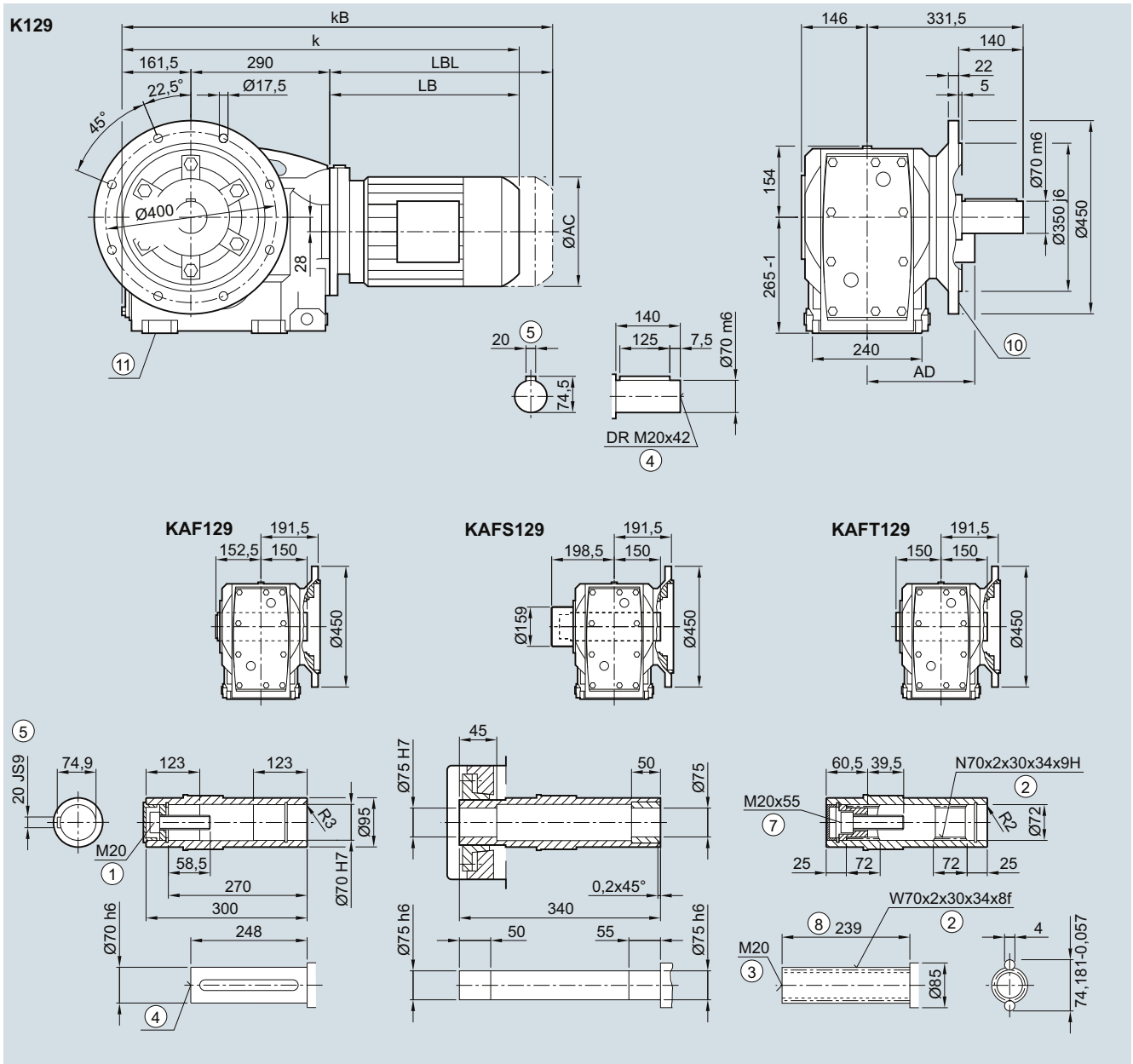
① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm

<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

K.F.129 gearbox in a flange-mounted design

KF030, KAF030, KAFS030, KAFT030

5



Motor	LE										LES					
	90	90Z	100	100Z	112	112Z	132	132Z	160	160Z	180	180Z	200	200Z	225	225Y
AC	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5	392.5	392.5	439.0	439.0
AD <sup>1)</sup>	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0	315.0	315.0	382.0	382.0
k	767.5	807.5	818.0	853.0	828.0	853.0	881.0	931.0	963.0	1 023.0	1 036.0	1 066.0	1 104.0	1 129.0	1 149.5	1 209.5
kB	837.5	877.5	896.5	931.5	901.0	926.0	985.5	1 035.5	1 079.0	1 139.0	1 165.0	1 195.0	1 251.0	1 276.0	1 377.5	1 437.5
LB	316.0	356.0	366.5	401.5	376.5	401.5	429.5	479.5	511.5	571.5	584.5	614.5	652.5	677.5	698.0	758.0
LBL	386.0	426.0	445.0	480.0	449.5	474.5	534.0	584.0	627.5	687.5	713.5	743.5	799.5	824.5	926.0	986.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm

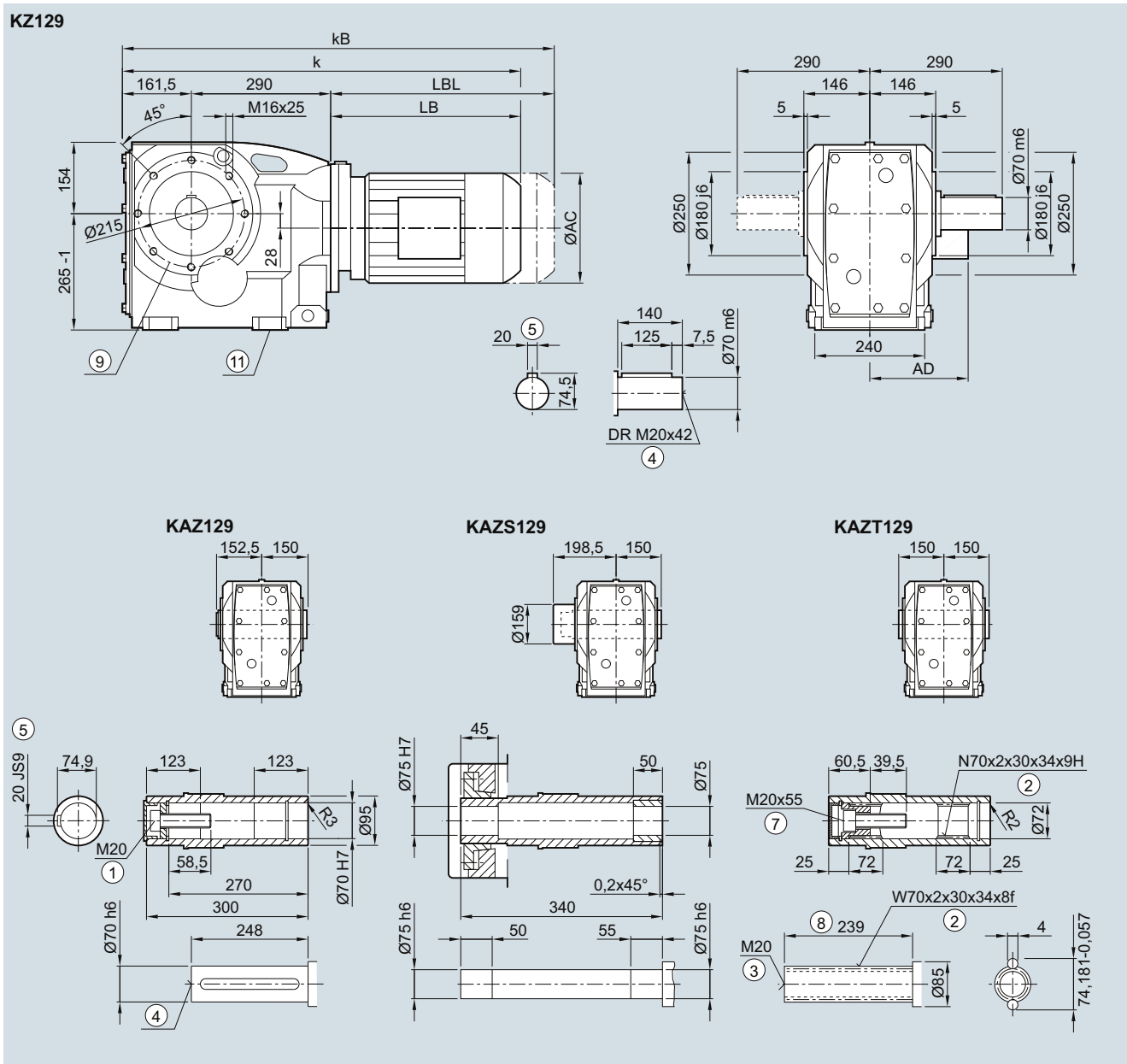
⑩ For inner contour see page 5/136

⑪ Use bores only for foot-mounted design

1) AD depends on the motor options, for other dimensions see page 8/36.

**K.Z.129 gearbox in a housing flange design**

**KZ030, KAZ030, KAZS030, KAZT030**



Motor	LE										LES					
	90	90Z	100	100Z	112	112Z	132	132Z	160	160Z	180	180Z	200	200Z	225	225Y
AC	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5	392.5	392.5	439.0	439.0
AD <sup>1)</sup>	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0	315.0	315.0	382.0	382.0
k	767.5	807.5	818.0	853.0	828.0	853.0	881.0	931.0	963.0	1 023.0	1 036.0	1 066.0	1 104.0	1 129.0	1 149.5	1 209.5
kB	837.5	877.5	896.5	931.5	901.0	926.0	985.5	1 035.5	1 079.0	1 139.0	1 165.0	1 195.0	1 251.0	1 276.0	1 377.5	1 437.5
LB	316.0	356.0	366.5	401.5	376.5	401.5	429.5	479.5	511.5	571.5	584.5	614.5	652.5	677.5	698.0	758.0
LBL	386.0	426.0	445.0	480.0	449.5	474.5	534.0	584.0	627.5	687.5	713.5	743.5	799.5	824.5	926.0	986.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm

⑨ For pin holes see page 5/137

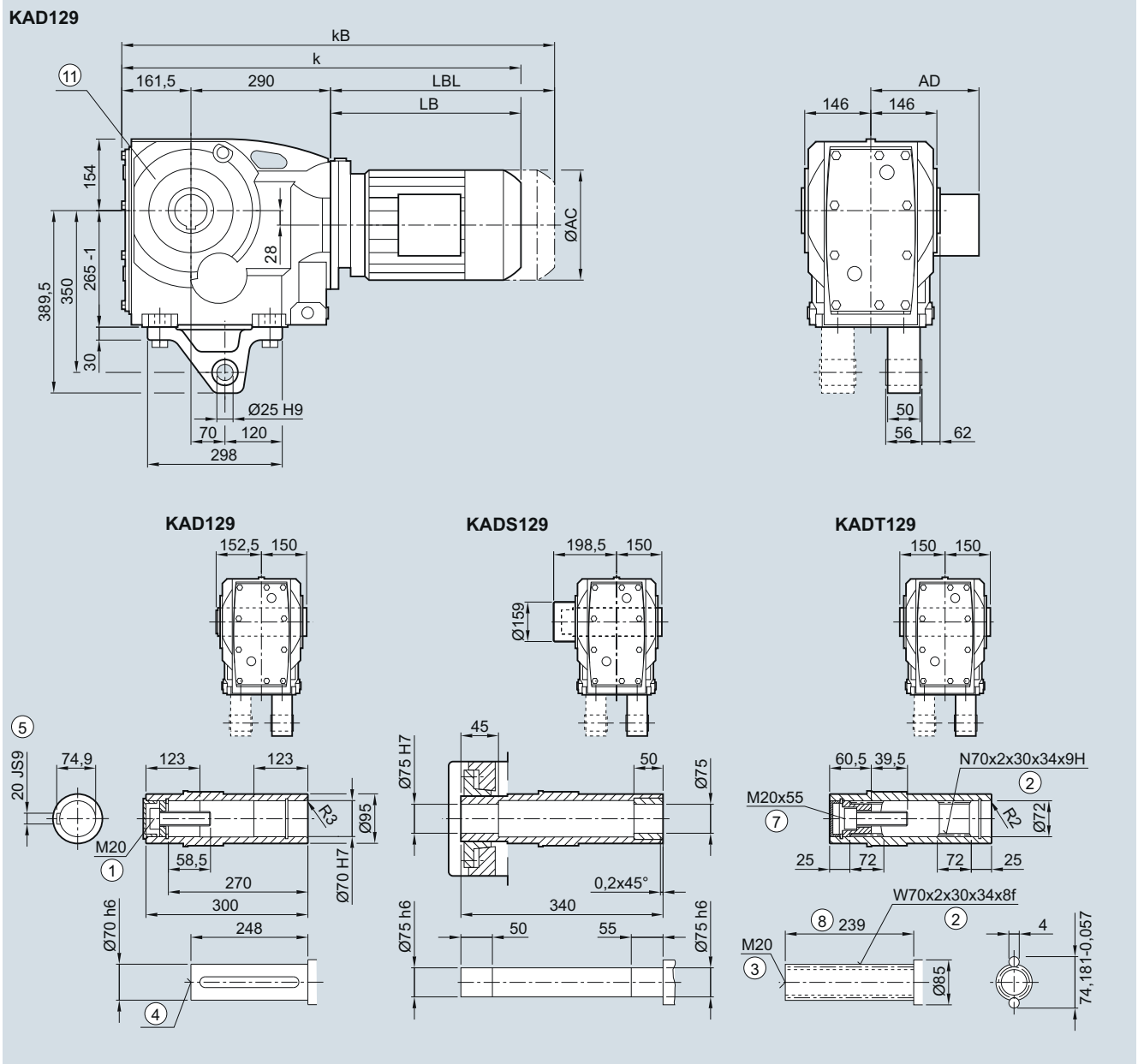
⑩ Use bores only for foot-mounted design

<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

**KAD.129 gearbox in a shaft-mounted design**

**KAD030, KADS030, KADT030**

**5**



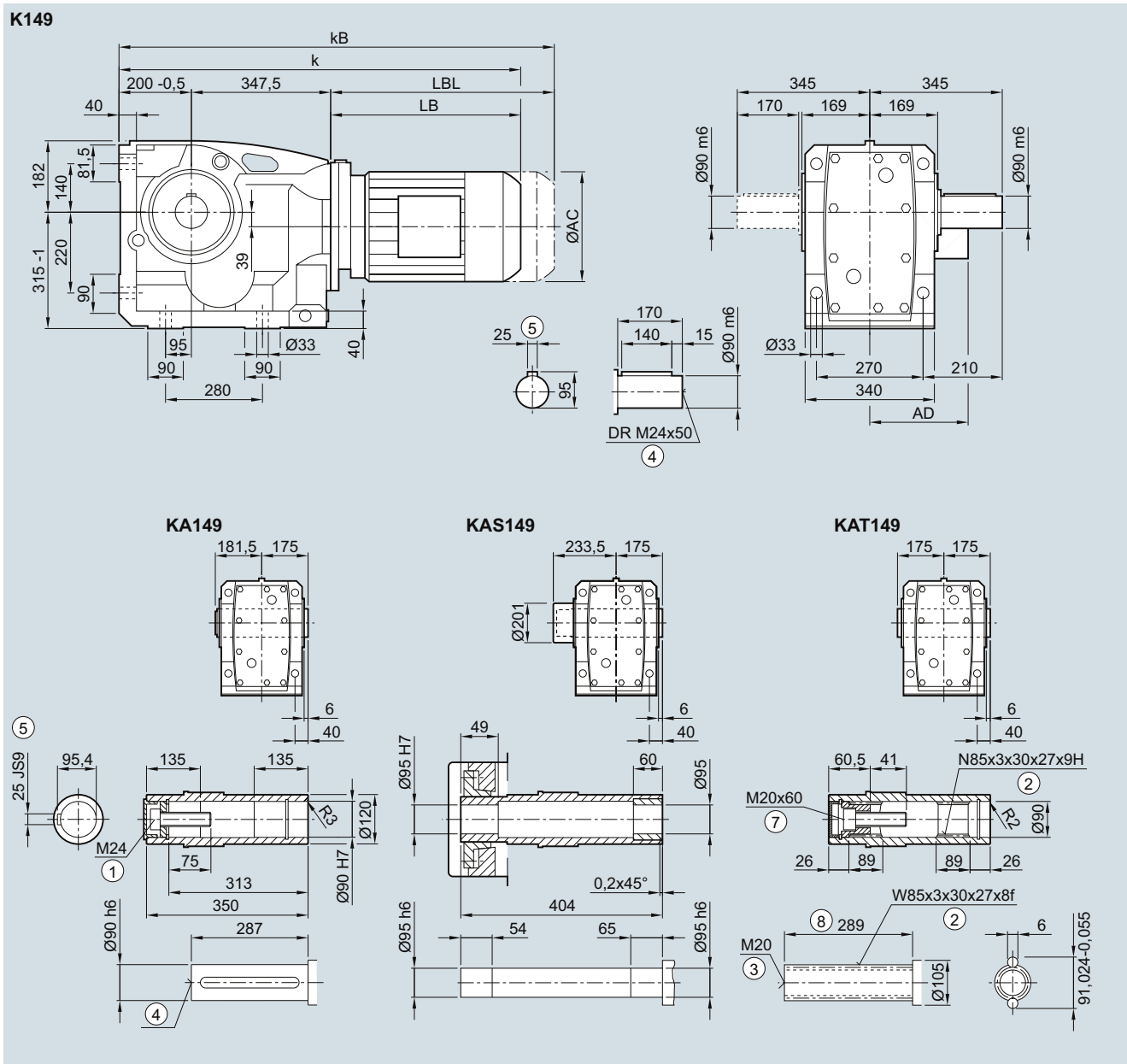
Motor	LE										LES					
	90	90Z	100	100Z	112	112Z	132	132Z	160	160Z	180	180Z	200	200Z	225	225Y
AC	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5	392.5	392.5	439.0	439.0
AD <sup>1)</sup>	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0	315.0	315.0	382.0	382.0
k	767.5	807.5	818.0	853.0	828.0	853.0	881.0	931.0	963.0	1 023.0	1 036.0	1 066.0	1 104.0	1 129.0	1 149.5	1 209.5
kB	837.5	877.5	896.5	931.5	901.0	926.0	985.5	1 035.5	1 079.0	1 139.0	1 165.0	1 195.0	1 251.0	1 276.0	1 377.5	1 437.5
LB	316.0	356.0	366.5	401.5	376.5	401.5	429.5	479.5	511.5	571.5	584.5	614.5	652.5	677.5	698.0	758.0
LBL	386.0	426.0	445.0	480.0	449.5	474.5	534.0	584.0	627.5	687.5	713.5	743.5	799.5	824.5	926.0	986.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ Use bores only for housing flange design    1) AD depends on the motor options, for other dimensions see page 8/36.



**K..149 gearbox in a foot-mounted design**

**K030, KA030, KAS030, KAT030**



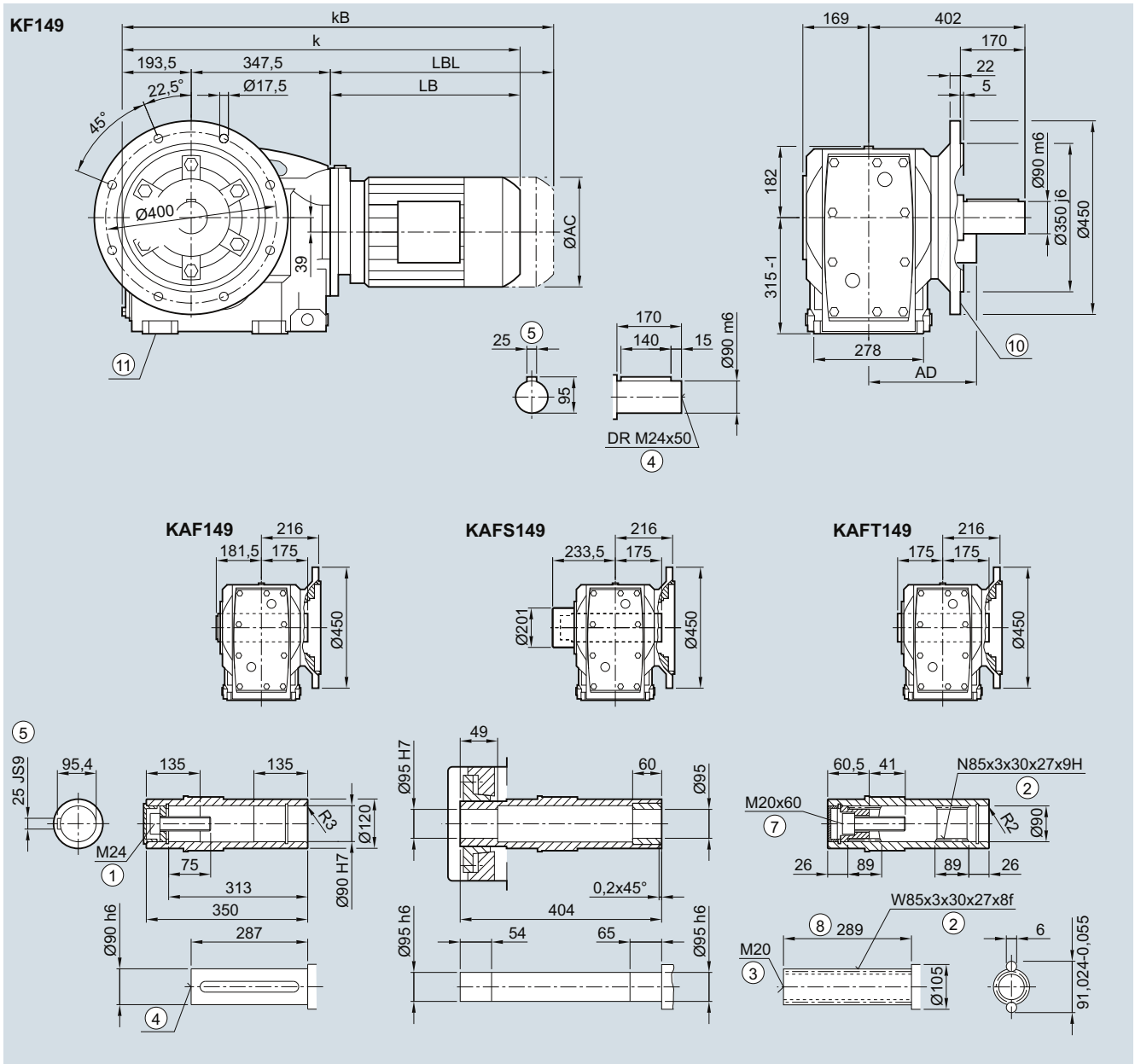
Motor	LES										LES						
	LE 90	90Z	100	100Z	112	112Z	132	132Z	160	160Z	180	180Z	200	200Z	225	225Y	250
AC	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5	392.5	392.5	439.0	439.0	487.0
AD <sup>1)</sup>	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0	315.0	315.0	382.0	382.0	457.5
k	856.5	896.5	905.0	940.0	915.0	940.0	966.0	1016.0	1048.0	1108.0	1121.0	1151.0	1189.0	1214.0	1240.5	1300.5	1346.0
kB	926.5	966.5	983.5	1018.5	988.0	1013.0	1070.5	1120.5	1164.0	1224.0	1250.0	1280.0	1336.0	1361.0	1468.5	1528.5	1571.0
LB	309.0	349.0	357.5	392.5	367.5	392.5	418.5	468.5	500.5	560.5	573.5	603.5	641.5	666.5	693.0	753.0	798.5
LBL	379.0	419.0	436.0	471.0	440.5	465.5	523.0	573.0	616.5	676.5	702.5	732.5	788.5	813.5	921.0	981.0	1023.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
<sup>1)</sup> AD depends on the motor options, for other dimensions see page 8/36.

K.F.149 gearbox in a flange-mounted design

KF030, KAF030, KAFS030, KAFT030

5



Motor	LE								LES								
	90	90Z	100	100Z	112	112Z	132	132Z	160	160Z	180	180Z	200	200Z	225	225Y	250
AC	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5	392.5	392.5	439.0	439.0	487.0
AD <sup>1)</sup>	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0	315.0	315.0	382.0	382.0	457.5
k	850.0	890.0	898.5	933.5	908.5	933.5	959.5	1009.5	1041.5	1101.5	1114.5	1144.5	1182.5	1207.5	1234.0	1294.0	1339.5
kB	920.0	960.0	977.0	1012.0	981.5	1006.5	1064.0	1114.0	1157.5	1217.5	1243.5	1273.5	1329.5	1354.5	1462.0	1522.0	1564.5
LB	309.0	349.0	357.5	392.5	367.5	392.5	418.5	468.5	500.5	560.5	573.5	603.5	641.5	666.5	693.0	753.0	798.5
LBL	379.0	419.0	436.0	471.0	440.5	465.5	523.0	573.0	616.5	676.5	702.5	732.5	788.5	813.5	921.0	981.0	1023.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm

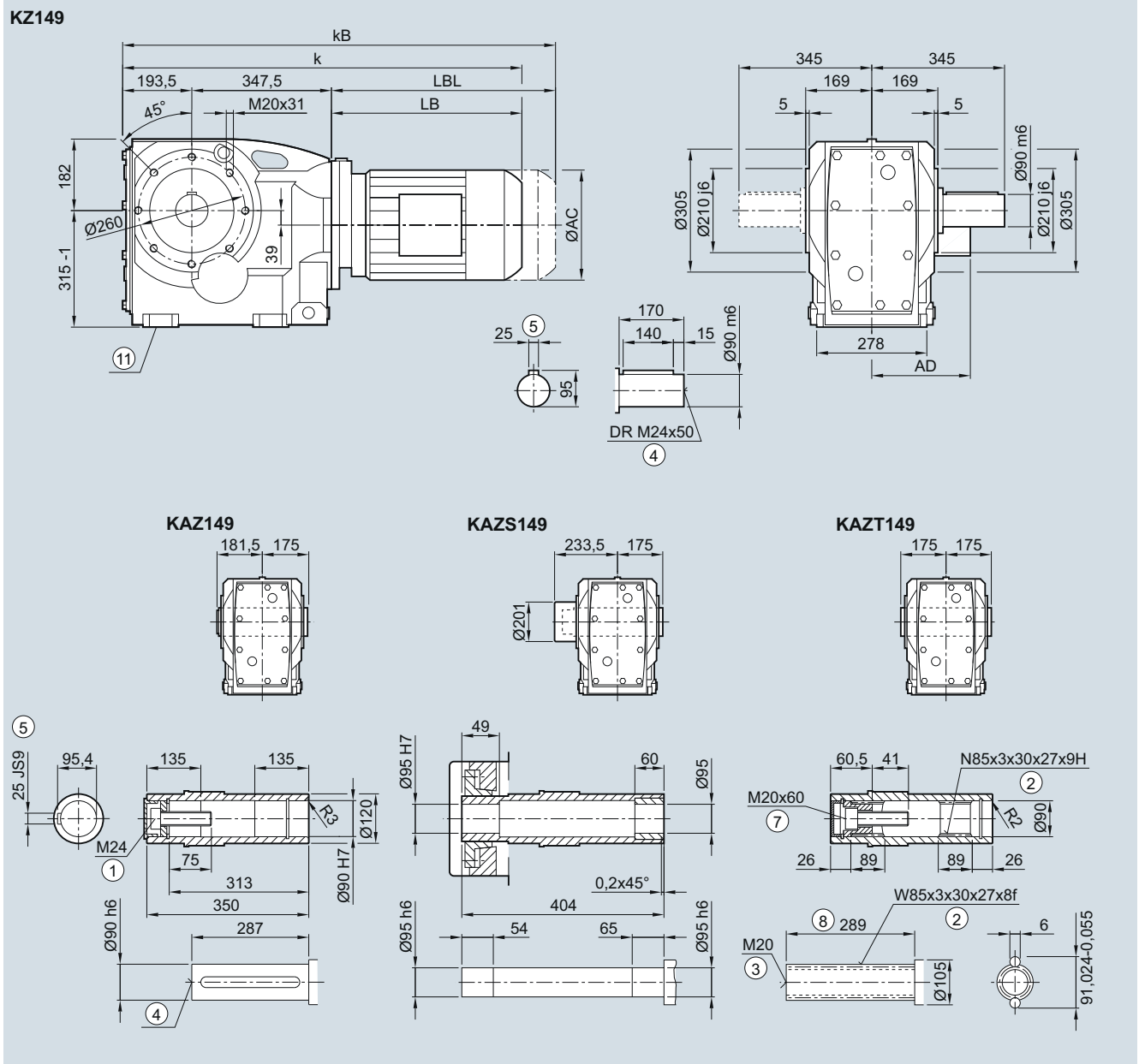
⑩ For inner contour see page 5/136

⑪ Use bores only for foot-mounted design

1) AD depends on the motor options, for other dimensions see page 8/36.

**K.Z.149 gearbox in a housing flange design**

**KZ030, KAZ030, KAZS030, KAZT030**



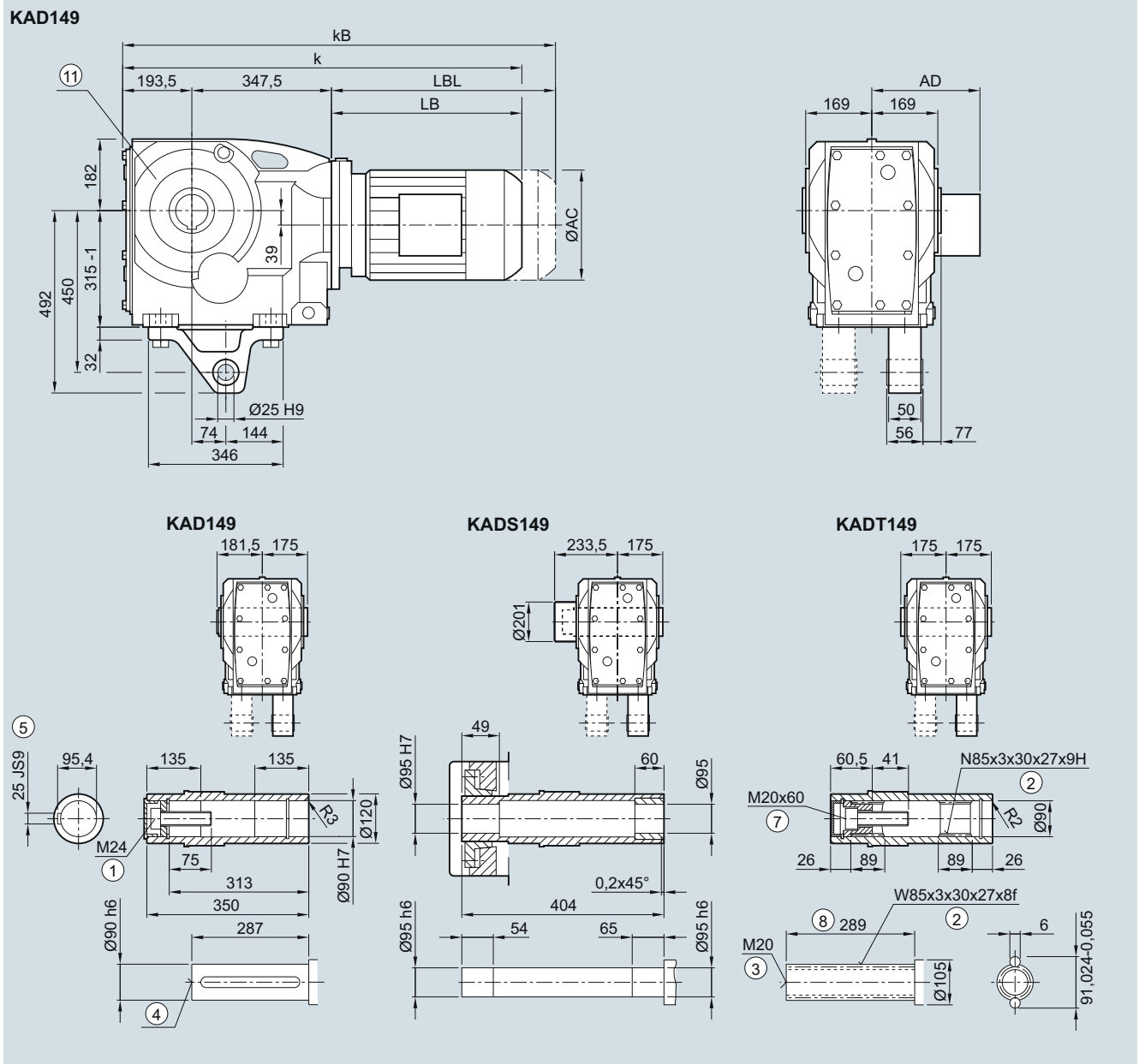
Motor	LE										LES						
	90	90Z	100	100Z	112	112Z	132	132Z	160	160Z	180	180Z	200	200Z	225	225Y	250
AC	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5	392.5	392.5	439.0	439.0	487.0
AD <sup>1)</sup>	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0	315.0	315.0	382.0	382.0	457.5
k	850.0	890.0	898.5	933.5	908.5	933.5	959.5	1009.5	1041.5	1101.5	1114.5	1144.5	1182.5	1207.5	1234.0	1294.0	1339.5
kB	920.0	960.0	977.0	1012.0	981.5	1006.5	1064.0	1114.0	1157.5	1217.5	1243.5	1273.5	1329.5	1354.5	1462.0	1522.0	1564.5
LB	309.0	349.0	357.5	392.5	367.5	392.5	418.5	468.5	500.5	560.5	573.5	603.5	641.5	666.5	693.0	753.0	798.5
LBL	379.0	419.0	436.0	471.0	440.5	465.5	523.0	573.0	616.5	676.5	702.5	732.5	788.5	813.5	921.0	981.0	1023.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ Use bores only for foot-mounted design  
 1) AD depends on the motor options, for other dimensions see page 8/36.

**KAD.149 gearbox in a shaft-mounted design**

**KAD031, KADS031, KADT031**

**5**



Motor	LE								LES								
	90	90Z	100	100Z	112	112Z	132	132Z	160	160Z	180	180Z	200	200Z	225	225Y	250
AC	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5	392.5	392.5	439.0	439.0	487.0
AD <sup>1)</sup>	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0	315.0	315.0	382.0	382.0	457.5
k	850.0	890.0	898.5	933.5	908.5	933.5	959.5	1009.5	1041.5	1101.5	1114.5	1144.5	1182.5	1207.5	1234.0	1294.0	1339.5
kB	920.0	960.0	977.0	1012.0	981.5	1006.5	1064.0	1114.0	1157.5	1217.5	1243.5	1273.5	1329.5	1354.5	1462.0	1522.0	1564.5
LB	309.0	349.0	357.5	392.5	367.5	392.5	418.5	468.5	500.5	560.5	573.5	603.5	641.5	666.5	693.0	753.0	798.5
LBL	379.0	419.0	436.0	471.0	440.5	465.5	523.0	573.0	616.5	676.5	702.5	732.5	788.5	813.5	921.0	981.0	1023.5

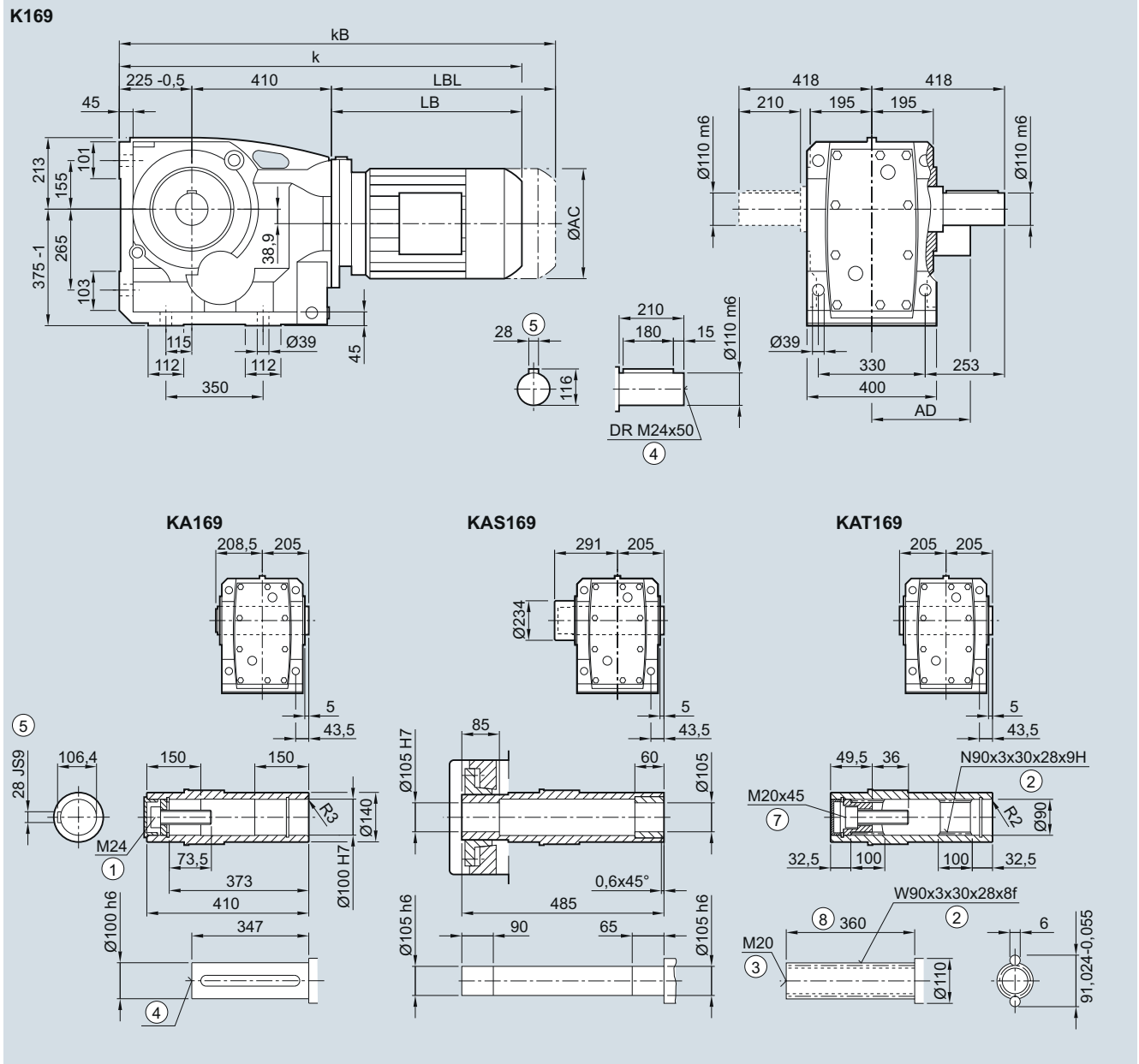
① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm

⑩ Use bores only for housing flange design

1) AD depends on the motor options, for other dimensions see page 8/36.

**K..169 gearbox in a foot-mounted design**

**K030, KA030, KAS030, KAT030**



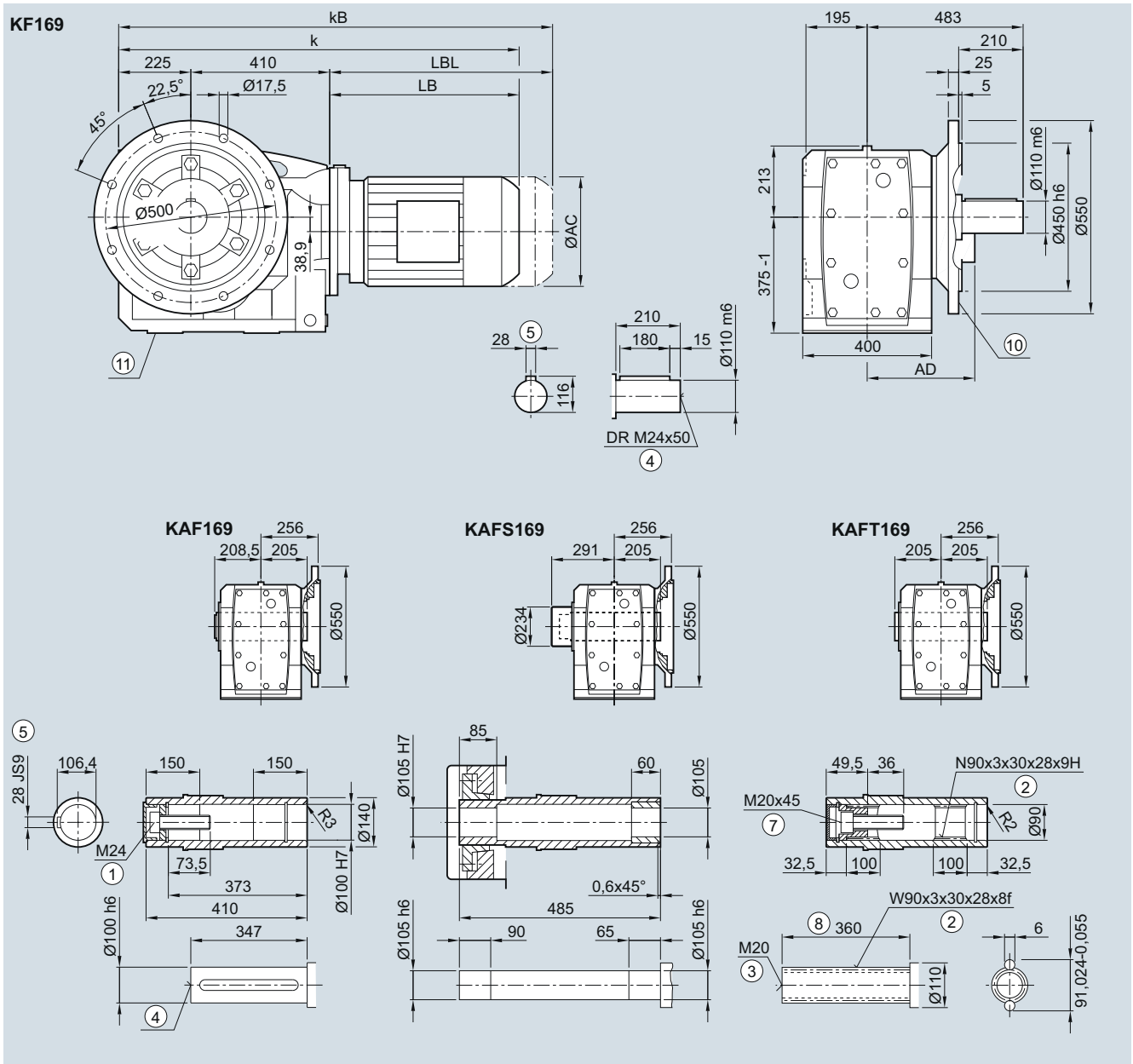
Motor	LE								LES							
	100	100Z	112	112Z	132	132Z	160	160Z	180	180Z	200	200Z	225	225Y	250	
AC	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5	392.5	392.5	439.0	439.0	487.0	
AD <sup>1)</sup>	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0	315.0	315.0	382.0	382.0	457.5	
k	991.0	1 026.0	1 001.0	1 026.0	1 047.0	1 097.0	1 129.0	1 189.0	1 202.0	1 232.0	1 270.0	1 295.0	1 315.5	1 375.5	1 427.0	
kB	1 069.5	1 104.5	1 074.0	1 099.0	1 151.5	1 201.5	1 245.0	1 305.0	1 331.0	1 361.0	1 417.0	1 442.0	1 543.5	1 603.5	1 652.0	
LB	356.0	391.0	366.0	391.0	412.0	462.0	494.0	554.0	567.0	597.0	635.0	660.0	680.5	740.5	792.0	
LBL	434.5	469.5	439	464.0	516.5	566.5	610.0	670.0	696.0	726.0	782.0	807.0	908.5	968.5	1 017.0	

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 1) AD depends on the motor options, for other dimensions see page 8/36.

K.F.169 gearbox in a flange-mounted design

KF030, KAF030, KAFS030, KAFT030

5

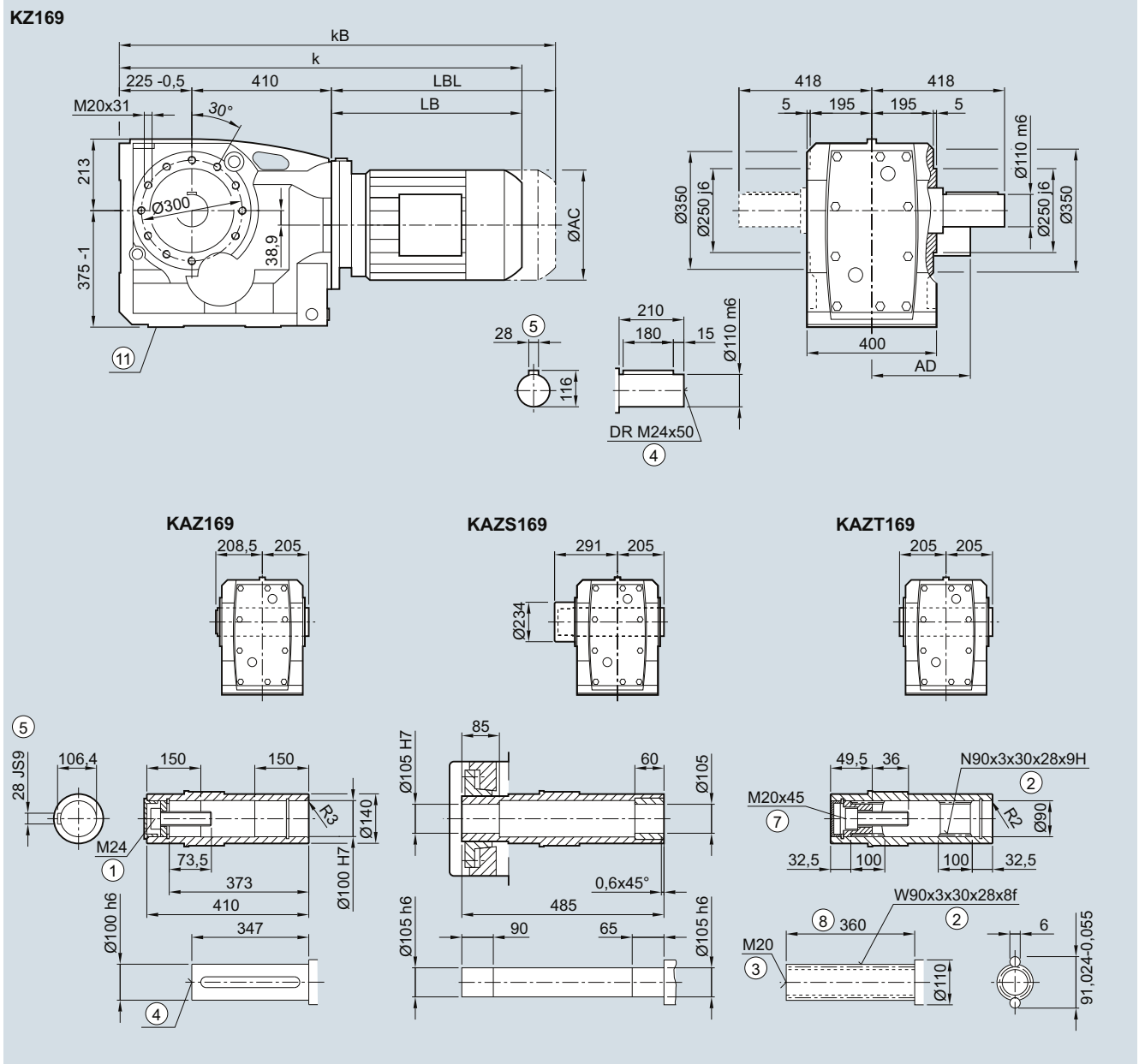


Motor	LE		LES												
	100	100Z	112	112Z	132	132Z	160	160Z	180	180Z	200	200Z	225	225Y	250
AC	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5	392.5	392.5	439.0	439.0	487.0
AD <sup>1)</sup>	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0	315.0	315.0	382.0	382.0	457.5
k	991.0	1026.0	1001.0	1026.0	1047.0	1097.0	1129.0	1189.0	1202.0	1232.0	1270.0	1295.0	1315.5	1375.5	1427.0
kB	1069.5	1104.5	1074.0	1099.0	1151.5	1201.5	1245.0	1305.0	1331.0	1361.0	1417.0	1442.0	1543.5	1603.5	1652.0
LB	356.0	391.0	366.0	391.0	412.0	462.0	494.0	554.0	567.0	597.0	635.0	660.0	680.55	740.5	792.0
LBL	434.5	469.5	439.0	464.0	516.5	566.5	610.0	670.0	696.0	726.0	782.0	807.0	908.5	968.5	1017.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ For inner contour see page 5/136    ⑪ Use bores only for foot-mounted design  
 1) AD depends on the motor options, for other dimensions see page 8/36.

**K.Z.169 gearbox in a housing flange design**

**KZ030, KAZ030, KAZS030, KAZT030**



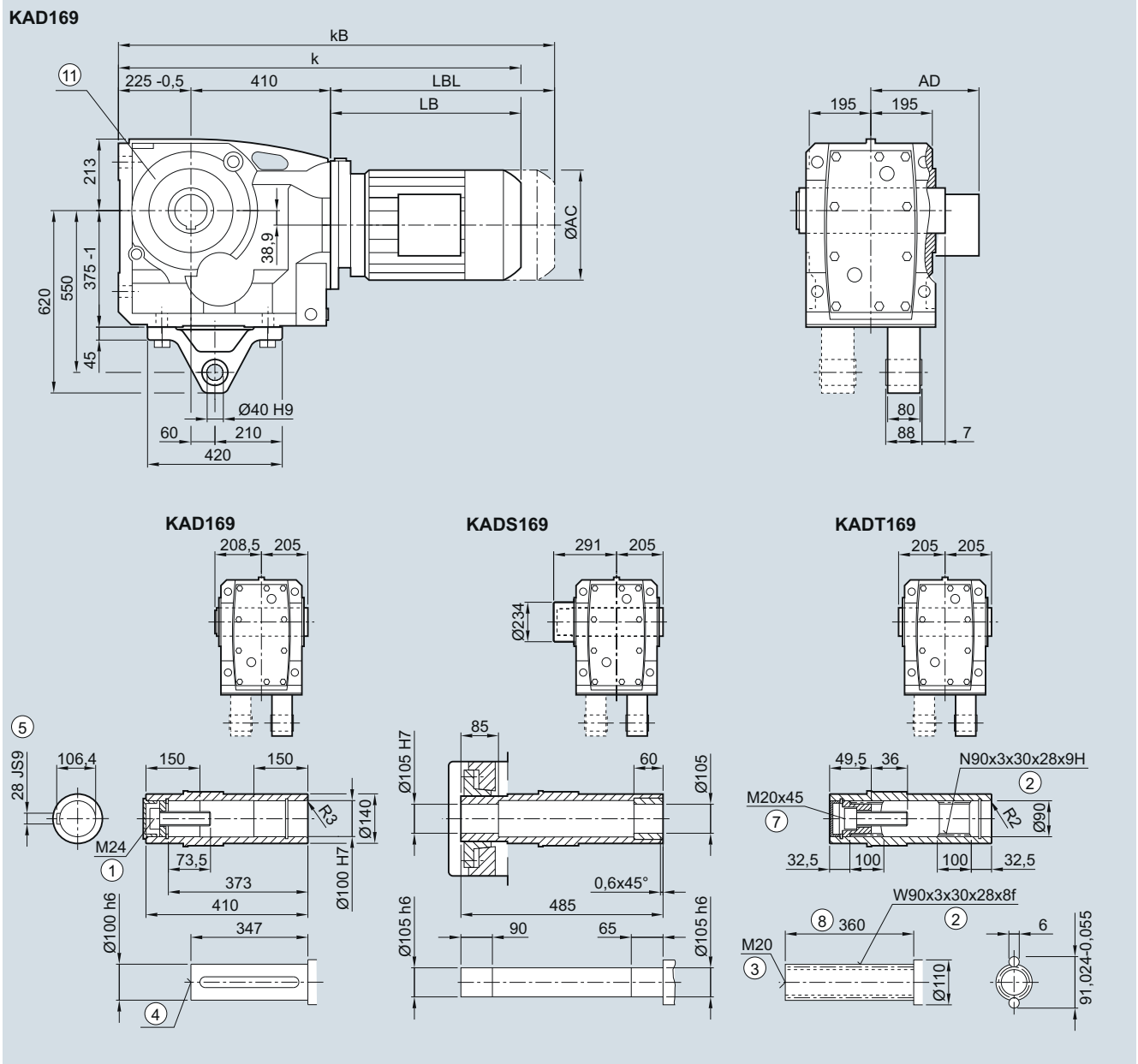
Motor	LE								LES							
	100	100Z	112	112Z	132	132Z	160	160Z	180	180Z	200	200Z	225	225Y	250	
AC	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5	392.5	392.5	439.0	439.0	487.0	
AD <sup>1)</sup>	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0	315.0	315.0	382.0	382.0	457.5	
k	991.0	1026.0	1001.0	1026.0	1047.0	1097.0	1129.0	1189.0	1202.0	1232.0	1 270.0	1 295.0	1 315.5	1 375.5	1 427.0	
kB	1069.5	1104.5	1074.0	1099.0	1151.5	1201.5	1245.0	1305.0	1331.0	1361.0	1 417.0	1 442.0	1 543.5	1 603.5	1 652.0	
LB	356.0	391.0	366.0	391.0	412.0	462.0	494.0	554.0	567.0	597.0	635.0	660.0	680.55	740.5	792.0	
LBL	434.5	469.5	439.0	464.0	516.5	566.5	610.0	670.0	696.0	726.0	782.0	807.0	908.5	968.5	1 017.0	

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑨ Use bores only for foot-mounted design    ①) AD depends on the motor options, for other dimensions see page 8/36.

KAD.169 gearbox in a shaft-mounted design

KAD031, KADS031, KADT031

5



Motor	LE					LES									
	100	100Z	112	112Z	132	132Z	160	160Z	180	180Z	200	200Z	225	225Y	250
AC	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5	392.5	392.5	439.0	439.0	487.0
AD <sup>1)</sup>	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0	315.0	315.0	382.0	382.0	457.5
k	991.0	1026.0	1001.0	1026.0	1047.0	1097.0	1129.0	1189.0	1202.0	1232.0	1270.0	1295.0	1315.5	1375.5	1427.0
kB	1069.5	1104.5	1074.0	1099.0	1151.5	1201.5	1245.0	1305.0	1331.0	1361.0	1417.0	1442.0	1543.5	1603.5	1652.0
LB	356.0	391.0	366.0	391.0	412.0	462.0	494.0	554.0	567.0	597.0	635.0	660.0	680.55	740.5	792.0
LBL	434.5	469.5	439.0	464.0	516.5	566.5	610.0	670.0	696.0	726.0	782.0	807.0	908.5	968.5	1017.0

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm

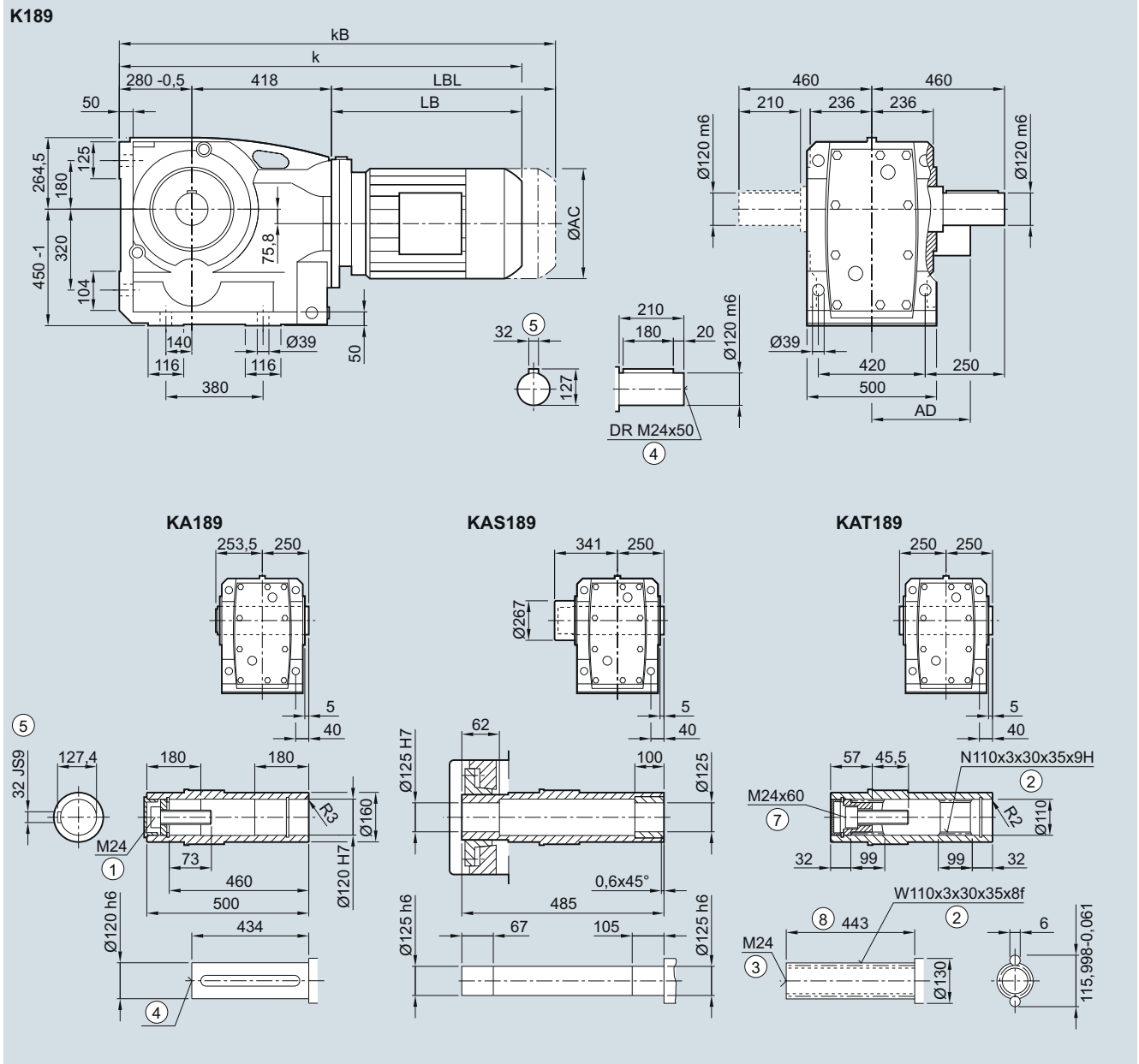
⑩ Use bores only for housing flange design

1) AD depends on the motor options, for other dimensions see page 8/36.



**K..189 gearbox in a foot-mounted design**

**K030, KA030, KAS030, KAT030**



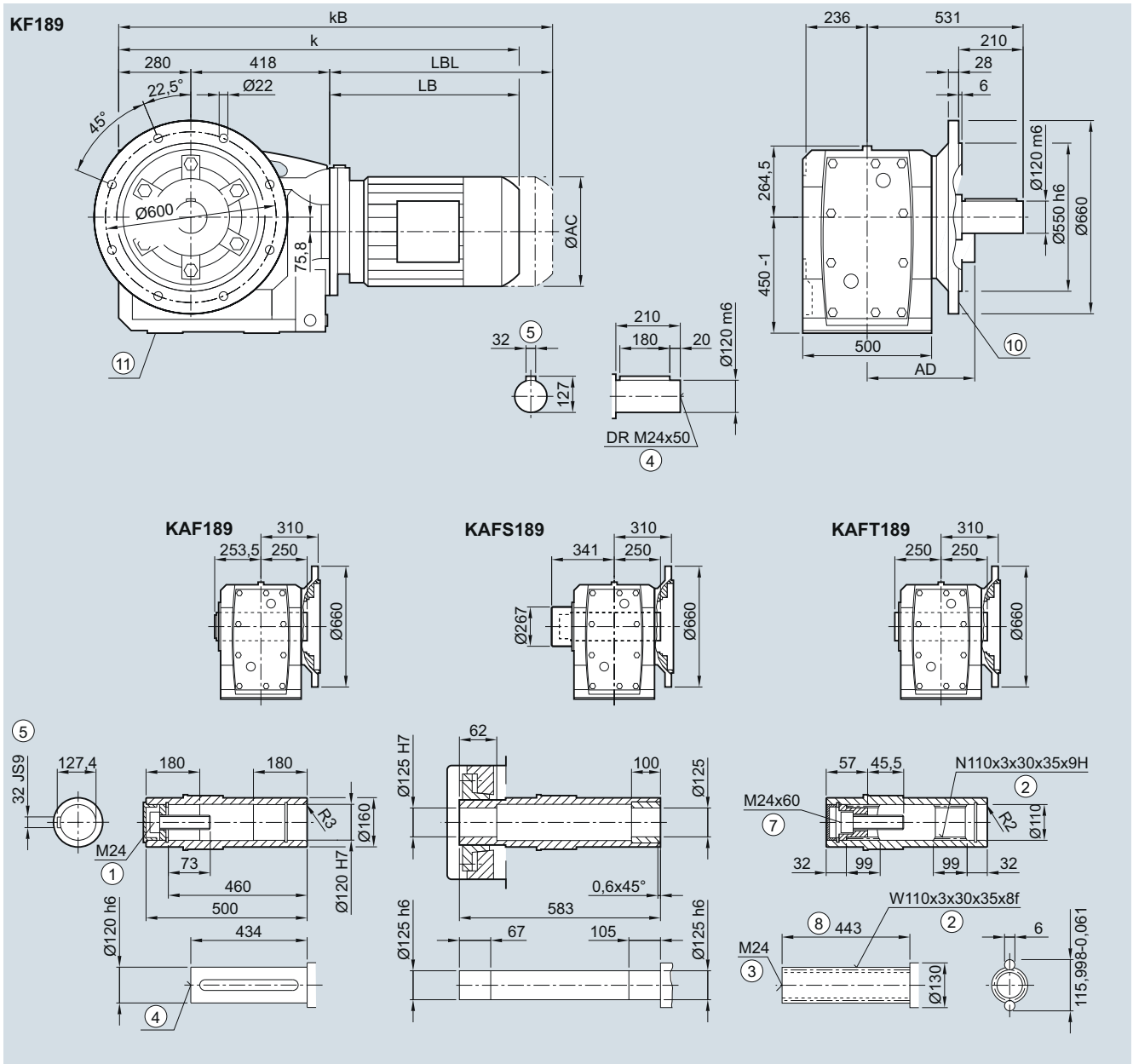
Motor	LE 112	112Z	132	132Z	160	160Z	LES 180	180Z	200	200Z	225	225Y	250
AC	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5	392.5	392.5	439.0	439.0	487.0
AD <sup>1)</sup>	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0	315.0	315.0	382.0	382.0	457.5
k	1 051.5	1 076.5	1 097.0	1 147.0	1 179.0	1 239.0	1 251.5	1 281.5	1 319.5	1 344.5	1 364.0	1 424.0	1 471.5
kB	1 124.5	1 149.5	1 201.5	1 251.5	1 295.0	1 355.0	1 380.5	1 410.5	1 466.5	1 491.5	1 592.0	1 652.0	1 696.5
LB	353.5	378.5	399.0	449.0	481.0	541.0	553.5	583.5	621.5	646.5	666.0	726.0	773.5
LBL	426.5	451.5	503.5	553.5	597.0	657.0	682.5	712.5	768.5	793.5	894.0	954.0	998.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 1) AD depends on the motor options, for other dimensions see page 8/36.

**K.F.189 gearbox in a flange-mounted design**

**KF030, KAF030, KAFS030, KAFT030**

**5**

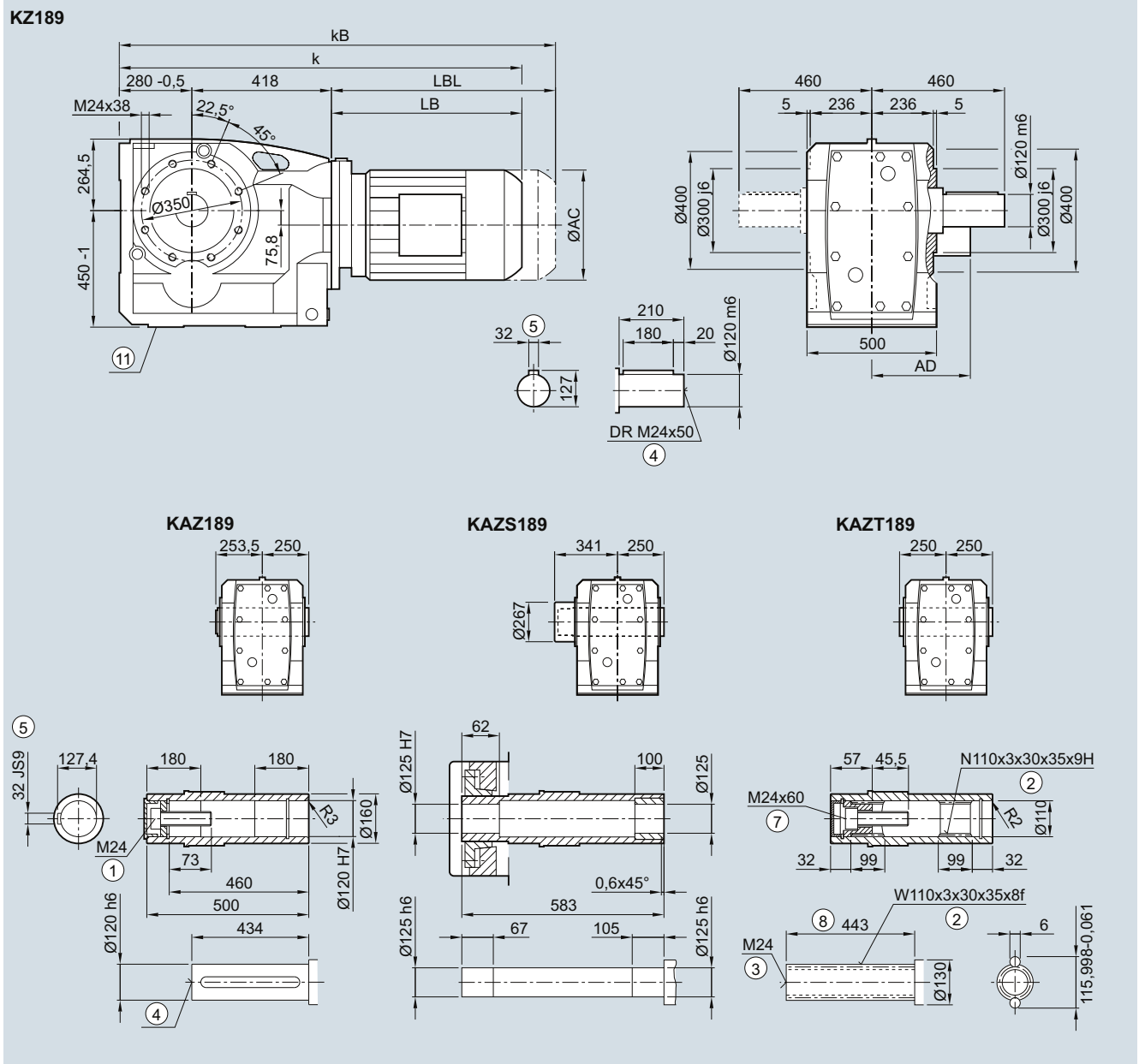


Motor	LES												
	LE 112	112Z	132	132Z	160	160Z	180	180Z	200	200Z	225	225Y	250
AC	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5	392.5	392.5	439.0	439.0	487.0
AD <sup>1)</sup>	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0	315.0	315.0	382.0	382.0	457.5
k	1 051.5	1 076.5	1 097.0	1 147.0	1 179.0	1 239.0	1 251.5	1 281.5	1 319.5	1 344.5	1 364.0	1 424.0	1 471.5
kB	1 124.5	1 149.5	1 201.5	1 251.5	1 295.0	1 355.0	1 380.5	1 410.5	1 466.5	1 491.5	1 592.0	1 652.0	1 696.5
LB	353.5	378.5	399.0	449.0	481.0	541.0	553.5	583.5	621.5	646.5	666.0	726.0	773.5
LBL	426.5	451.5	503.5	553.5	597.0	657.0	682.5	712.5	768.5	793.5	894.0	954.0	998.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ For inner contour see page 5/136    ⑪ Use bores only for foot-mounted design  
 1) AD depends on the motor options, for other dimensions see page 8/36.

**K.Z.189 gearbox in a housing flange design**

**KZ030, KAZ030, KAZS030, KAZT030**



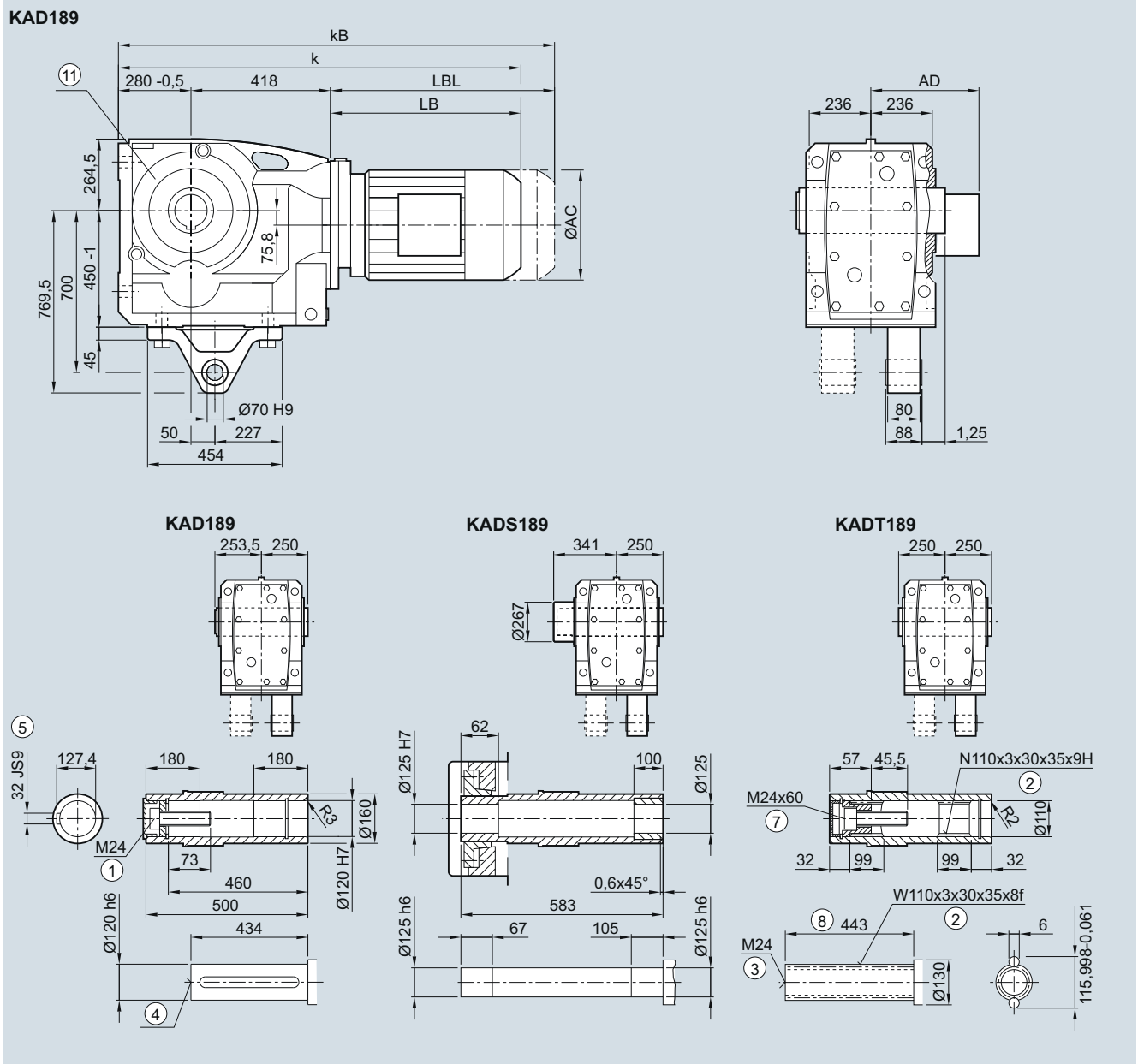
Motor	LE 112	112Z	132	132Z	160	160Z	LES 180	180Z	200	200Z	225	225Y	250
AC	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5	392.5	392.5	439.0	439.0	487.0
AD <sup>1)</sup>	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0	315.0	315.0	382.0	382.0	457.5
k	1 051.5	1 076.5	1 097.0	1 147.0	1 179.0	1 239.0	1 251.5	1 281.5	1 319.5	1 344.5	1 364.0	1 424.0	1 471.5
kB	1 124.5	1 149.5	1 201.5	1 251.5	1 295.0	1 355.0	1 380.5	1 410.5	1 466.5	1 491.5	1 592.0	1 652.0	1 696.5
LB	353.5	378.5	399.0	449.0	481.0	541.0	553.5	583.5	621.5	646.5	666.0	726.0	773.5
LBL	426.5	451.5	503.5	553.5	597.0	657.0	682.5	712.5	768.5	793.5	894.0	954.0	998.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm  
 ⑩ Use bores only for foot-mounted design    1) AD depends on the motor options, for other dimensions see page 8/36.

**KAD.189 gearbox in a shaft-mounted design**

**KAD031, KADS031, KADT031**

**5**



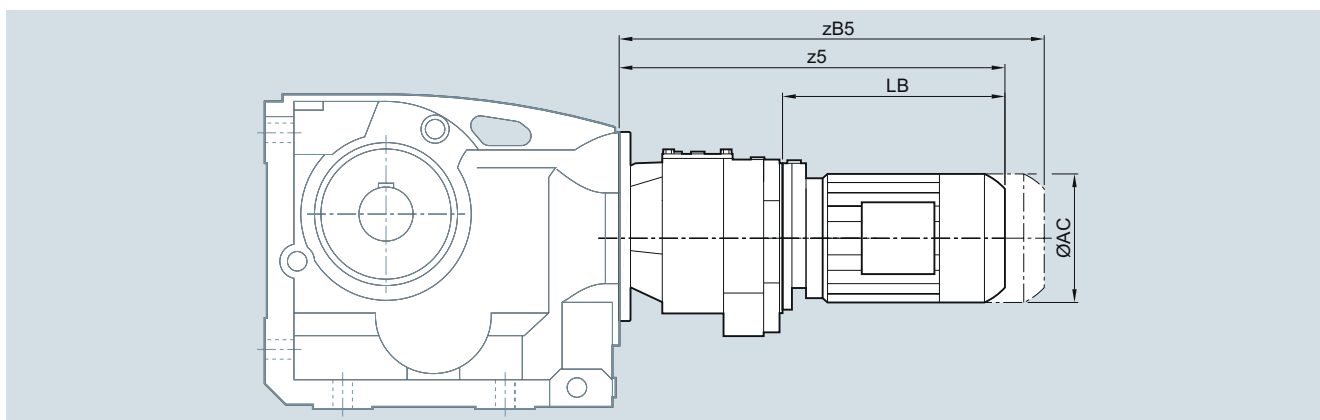
Motor	LES												
	LE 112	112Z	132	132Z	160	160Z	180	180Z	200	200Z	225	225Y	250
AC	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5	392.5	392.5	439.0	439.0	487.0
AD <sup>1)</sup>	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0	315.0	315.0	382.0	382.0	457.5
k	1 051.5	1 076.5	1 097.0	1 147.0	1 179.0	1 239.0	1 251.5	1 281.5	1 319.5	1 344.5	1 364.0	1 424.0	1 471.5
kB	1 124.5	1 149.5	1 201.5	1 251.5	1 295.0	1 355.0	1 380.5	1 410.5	1 466.5	1 491.5	1 592.0	1 652.0	1 696.5
LB	353.5	378.5	399.0	449.0	481.0	541.0	553.5	583.5	621.5	646.5	666.0	726.0	773.5
LBL	426.5	451.5	503.5	553.5	597.0	657.0	682.5	712.5	768.5	793.5	894.0	954.0	998.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑦ ISO 4762    ⑧ Without locating shoulder +1 mm

⑩ Use bores only for housing flange design

1) AD depends on the motor options, for other dimensions see page 8/36.

## Bevel tandem geared motors

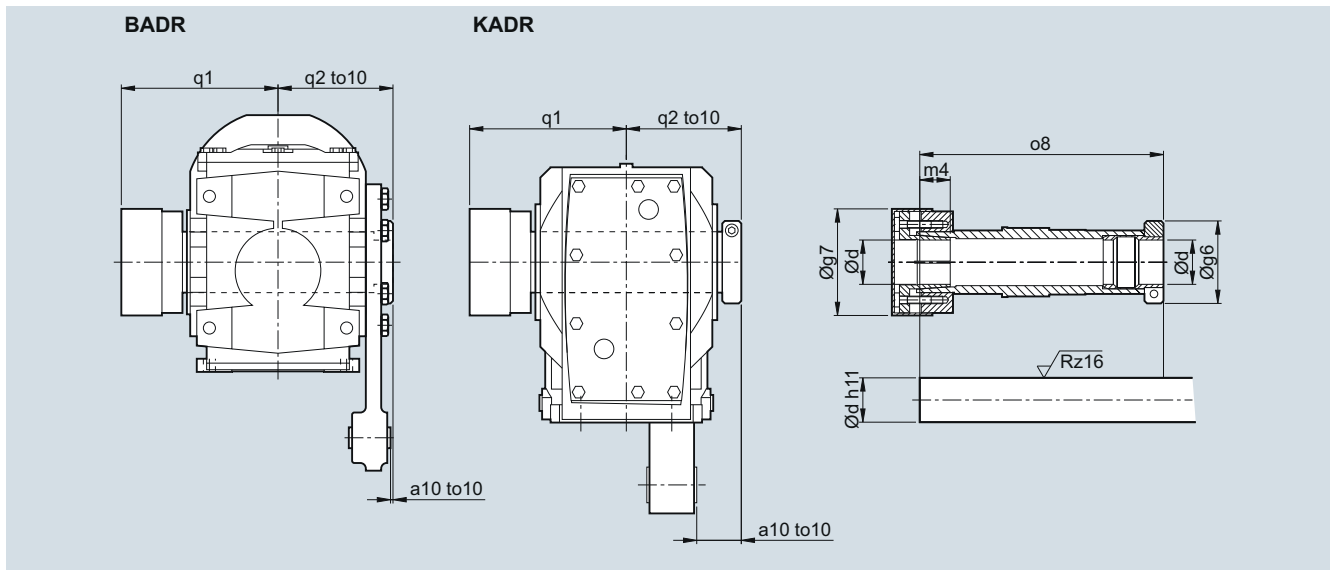


Gearbox	Motor	AC	z5	zB5	LB
K.39-D/Z19	LA63	117.8	331.0	375.5	160.5
	LA71	138.8	363.0	418.0	184.5
	LA71Z	138.8	382.0	437.0	203.5
K.49-D/Z19	LA63	117.8	322.0	366.5	160.5
	LA71	138.8	354.0	409.0	184.5
	LA71Z	138.8	373.0	428.0	203.5
K.69-D/Z19	LA63	117.8	322.0	366.5	160.5
	LA71	138.8	354.0	409.0	184.5
	LA71Z	138.8	373.0	428.0	203.5
K.79-D/Z19	LA63	117.8	322.0	366.5	160.5
	LA71	138.8	354.0	409.0	184.5
	LA71Z	138.8	373.0	428.0	203.5
K.89-D/Z39	LA63	117.8	373.5	418.0	194.0
	LA71	138.8	405.5	460.5	226.0
	LA71Z	138.8	424.5	479.5	245.0
K.109-D/Z39	LA63	117.8	356.5	401.0	194.0
	LA71	138.8	388.5	443.5	226.0
	LA71Z	138.8	407.5	462.5	245.0
K.129-D/Z39	LA63	117.8	347.5	392.0	194.0
	LA71	138.8	379.5	434.5	226.0
	LA71Z	138.8	398.5	453.5	245.0
K.129-D/Z39	LE80	156.3	443.5	503.5	290.0
	LE80Z	156.3	478.5	538.5	325.0
	LE90	173.8	505.0	575.0	351.5

Gearbox	Motor	AC	z5	zB5	LB
K.129-D/Z39	LE90Z	173.8	545.0	615.0	391.5
	LE100	198.0	561.5	640.0	408.0
	LE100Z	198.0	596.5	675.0	443.0
	LE112	222.0	571.5	644.5	418.0
K.149-D/Z49	LE112Z	222.0	596.5	669.5	443.0
	LA63	117.8	376.5	421.0	184.5
	LA71	138.8	408.5	463.5	216.5
K.149-D/Z49	LA71Z	138.8	427.5	482.5	235.5
	LE80	156.3	472.5	532.5	280.5
	LE80Z	156.3	507.5	567.5	315.5
K.149-D/Z49	LE90	173.8	534.0	604.0	342.0
	LE90Z	173.8	574.0	644.0	382.0
	LE100	198.0	590.5	669.0	398.5
K.149-D/Z49	LE100Z	198.0	625.5	704.0	433.5
	LE112	222.0	600.5	673.5	408.5
	LE112Z	222.0	635.0	708.0	443.0
K.149-D/Z49	LE132	264.0	653.5	758.0	461.5
	LE132Z	264.0	703.5	808.0	511.5
	LA63	117.8	366.0	410.5	184.5
K.169-D/Z49	LA71	138.8	398.0	453.0	216.5
	LA71Z	138.8	417.5	472.5	235.5
	LE80	156.3	462.0	522.0	280.5
K.169-D/Z49	LE80Z	156.3	497.0	557.0	315.5
	LE90	173.8	523.5	593.5	342.0
	LE90Z	173.8	563.5	633.5	382.0
K.169-D/Z49	LE100	198.0	580.0	658.5	398.5
	LE100Z	198.0	615.0	693.5	433.5
	LE112	222.0	590.0	663.0	408.5
K.169-D/Z49	LE112Z	222.0	624.5	697.5	443.0
	LE132	264.0	643.0	747.5	461.5
	LE132Z	264.0	693.0	797.5	511.5
K.189-D/Z69	LA63	117.8	391.5	436.0	184.5
	LA71	138.8	423.5	478.5	216.5
	LA71Z	138.8	442.5	497.5	235.5
K.189-D/Z69	LE80	156.3	487.5	547.5	280.5
	LE80Z	156.3	522.5	582.5	315.5
	LE90	173.8	549	619.0	342.0
K.189-D/Z69	LE90Z	173.8	589	659.0	382.0
	LE100	198.0	605.5	684.0	398.5
	LE100Z	198.0	640.5	719.0	433.5
K.189-D/Z69	LE112	222.0	615.5	688.5	408.5
	LE112Z	222.0	650	723.0	443.0
	LE132	264.0	668.5	773.0	461.5
K.189-D/Z69	LE132Z	264.0	718.5	823.0	511.5

SIMOLOC assembly system

5



Note mounting tolerance to10 when positioning the torque arm.

d	g6	g7	m4	o8	q1	q2	a10	to10
<b>BADR29</b>								
20	58.5	56	18.5	151	102	75	11	+2.1
1"								+0.6
0.75"								
<b>BADR39</b>								
30	62.0	76	22	180.5	116	85	2.5	+2.2
25								+0.7
1.25"								
1.1875"								
1"								
<b>BADR49</b>								
35	65.0	84	24	210.0	134	100	-2.5	+2.6
30								+0.8
1.375"								
1.4375"								
1.25"								
1.1875"								
40	79.5	94	30	220	140	104	1.5	
1.625"								
<b>KADR39</b>								
30	62.0	76	22	160.5	106	75	39	+2.2
25								+0.7
1.25"								
1.1875"								
1"								
<b>KADR49</b>								
35	65.0	84	24	192.0	124	90	41	+2.6
30								+0.8
1.375"								
1.4375"								
1.25"								
1.1875"								

**SIMOLOC assembly system** (continued)

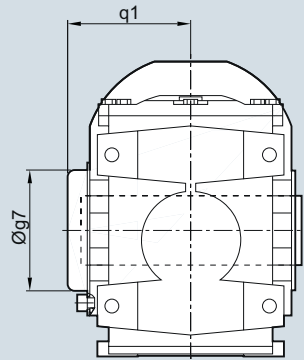
<b>d</b>	<b>g6</b>	<b>g7</b>	<b>m4</b>	<b>o8</b>	<b>q1</b>	<b>q2</b>	<b>a10</b>	<b>to10</b>
<b>KADR69</b>								
40	79.5	94	30	217.5	138	102	39	+2.5
35								+0.7
1.5"								
1.625"								
1.4375"								
1.375"								
<b>KADR79</b>								
40	79.5	94	30	232.0	150	109	46	+3.2
35								+1.4
1.5"								
1.625"								
1.4375"								
1.375"								
<b>KADR89</b>								
50	89.0	114	32	264.0	171	124	45	+3.4
40								+1.5
2"								
1.9375"								
1.75"								
1.625"								

Protection covers

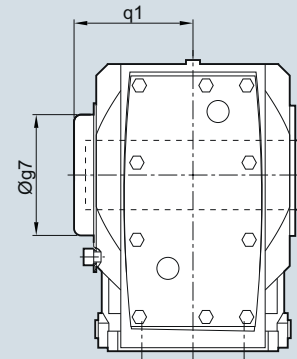
Protection cover for hollow shaft

5

BA, BAF, BAZ, BAD



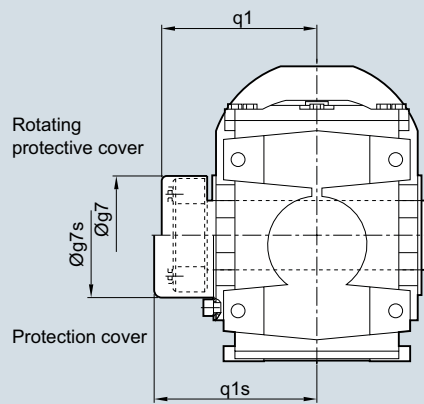
KA<sup>1)</sup>, KAF, KAZ, KAD



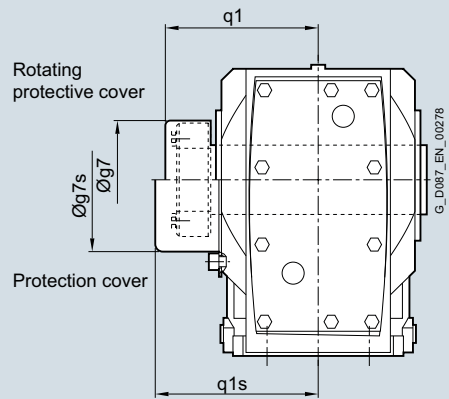
Gearbox type	BA.19	BA.29	BA.39	BA.49	KA.39	KA.49	KA.69	KA.79	KA.89	KA.109	KA.129	KA.149	KA.169	KA.189
<b>Protection cover</b>														
g7	82.0	67.0	80.0	80.0	82.5	80.0	99.0	99.0	137.0	187.0	187.0	218.0	257.5	309.5
q1	57.5	76.0	96.0	111.0	73.0	99.0	95.0	101.5	124.5	168.0	198.0	250.0	313.0	373.5

Protection cover for hollow shaft with shrink disk

BAS, BAFS, BAZS, BADS



KAFS, KAZS, KADS



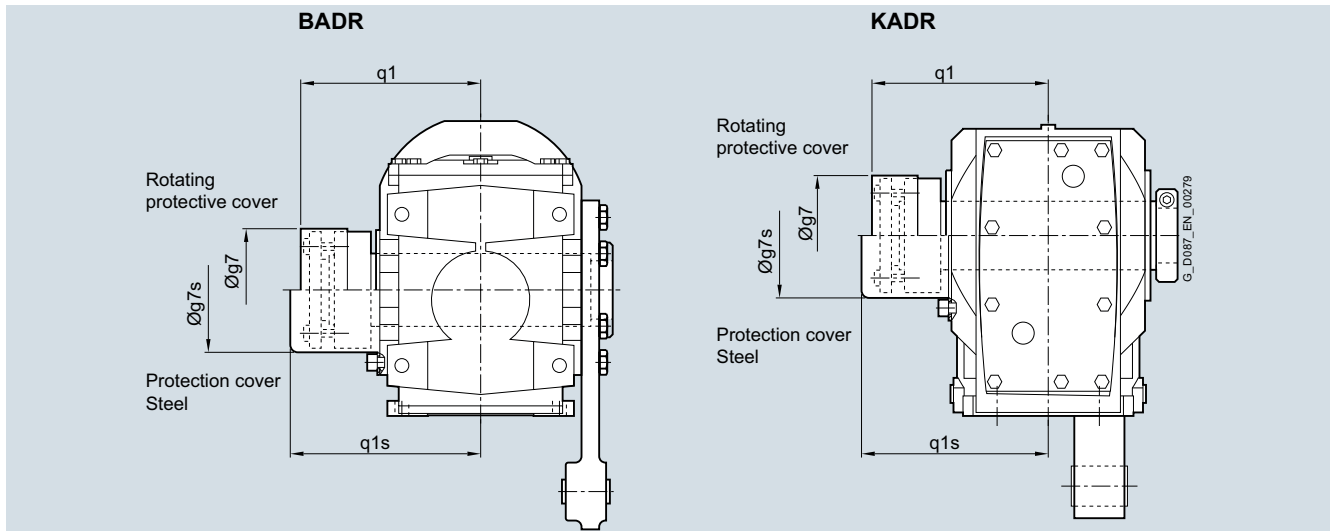
Gearbox type	BA..29	BA..39	BA..49	KA..39	KA..49	KA..69	KA..79	KA..89	KA..109	KA..129	KA..149	KA..169	KA..189
<b>Rotating protective cover with shrink disk version</b>													
g7	55	84	84	76.0	84	84	94.0	119.0	142.0	159.0	201.0	234.0	267.0
q1	85	102	117	89.5	107	115	125.5	142.5	162.5	198.5	233.5	291.0	343.5
<b>Protection cover</b>													
g7s	58	86	86	82.5	86	99	99.0	137.0	187.0	187.0	218.0	257.5	309.5
q1s	91	119	134	109.0	122	126	132.5	176.5	195.0	225.0	250.0	313.0	373.5

<sup>1)</sup> KA/KAS version valid only for gearbox sizes 169 and 189



**Protection covers**

**Protection cover for hollow shaft with SIMOLOC assembly system**

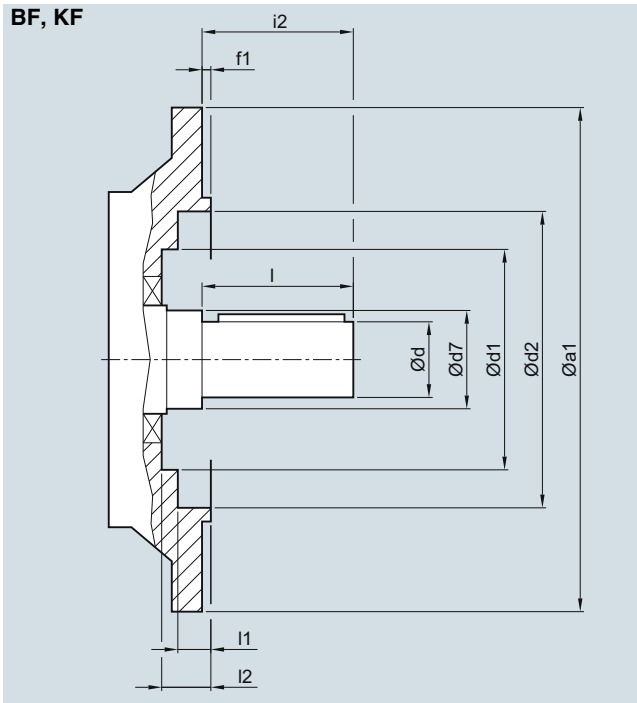


Gearbox type	BADR29	BADR39	BADR49	KADR39	KADR49	KADR69	KADR79	KADR89
<b>Rotating protective cover</b>								
g7	56	76	84 (94)	76	84	94	94	114
q1	102	116	134 (140)	106	124	138	150	171
<b>Protection cover</b>								
g7s	58	86.0	86 (99)	82.5	86	99	99	137
q1s	102	119.0	138 (143)	109	126	145	151.5	176.5

( ) Dimension in brackets for hollow shaft d=40 and d=1.625"

Inner contour of the flange design

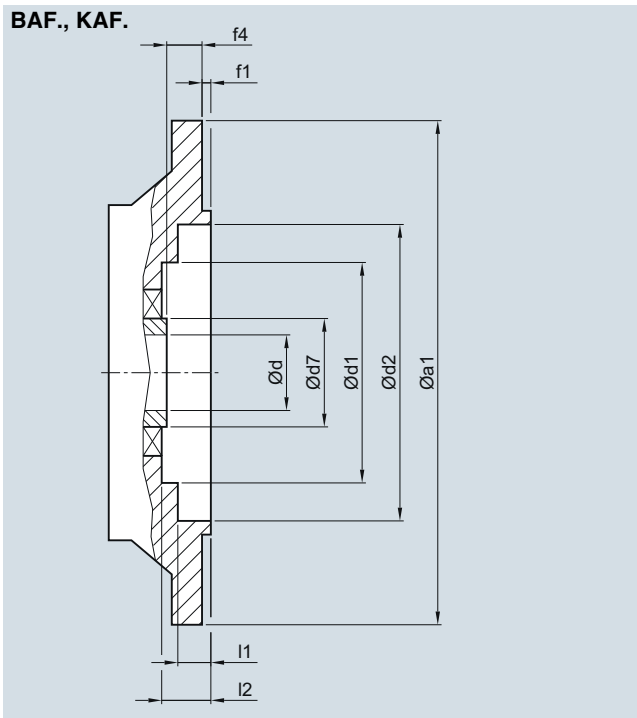
Notes regarding the design of the customer's interface for the solid shaft design



Gearbox type	a1	d	d7	d1	d2	f1	i2	l	l1	l2
BF19	120	20	30	60	68	3.0	40	40	23.5	29.5
BF29	120	20	40	-	70	3.0	40	40	24.0	-
	160	20	40	70	101	3.5	40	40	8.5	24.5
BF39	160	30	55	93	100	3.5	60	60	11.0	31.5
	200	30	55	93	119	3.5	60	60	16.0	31.5
BF49	200	35	55	93	119	3.5	70	70	16.0	31.5
KF39	160	25	30	-	100	3.5	50	50	5.0	-
KF49	200	30	35	-	118	3.5	60	60	5.5	-
KF69	250	35	45	-	165	4.0	70	70	6.5	-
KF79	250	40	55	-	165	4.0	80	80	6.5	-
KF89	300	50	55	-	165	4.0	100	100	8.0	-
KF109	350	60	65	-	235	5.0	120	120	9.0	-
KF129	450	70	75	-	336	5.0	140	140	9.0	-
KF149	450	90	100	-	336	5.0	170	170	10.0	-
KF169	550	110	120	-	427	5.0	210	210	10.0	-
KF189	660	120	160	-	517	6.0	210	210	11.0	-

5

Notes regarding the design of the customer's interface for the hollow shaft design



Gearbox type	a1	d	d7	d1	d2	f1	f4	l1	l2
BAF.19	120	20	30	60	68	3.0	30.0	23.5	29.5
BAF.29	120	20/ 25	40	-	70	3.0	20.0	24.0	-
	160	20/ 25	40	70	101	3.5	20.0	8.5	24.5
BAF.39	160	30	55	93	100	3.5	27.0	11.0	31.5
		35							
		40							
BAF.39	200	30	55	93	119	3.5	27.0	16.0	31.5
		35							
		40							
BAF.49	200	35/ 40	55	93	119	3.5	27.0	16.0	31.5
KAF.39	160	30	45	80	102	3.5	24.0	2.0	29.5
KAF.49	200	35	50	90	120	3.5	25.0	4.0	30.5
KAF.69	250	40	55	104	165	4.0	23.5	2.0	29.5
KAF.79	250	40	55	104	165	4.0	23.0	2.0	29.5
KAF.89	300	50	70	135	215	4.0	37.0	2.0	44.5
KAF.109	350	60	85	184	210	5.0	36.0	13.0	45.0
KAF.129	450	70	95	184	336	5.0	41.5	16.5	48.5
KAF.149	450	90	120	214	219	5.0	41.0	40.0	50.0
KAF.169	550	100	140	254	426	5.0	56.0	14.5	56.0
KAF.189	660	120	160	306	518	6.0	66.0	6.0	62.0

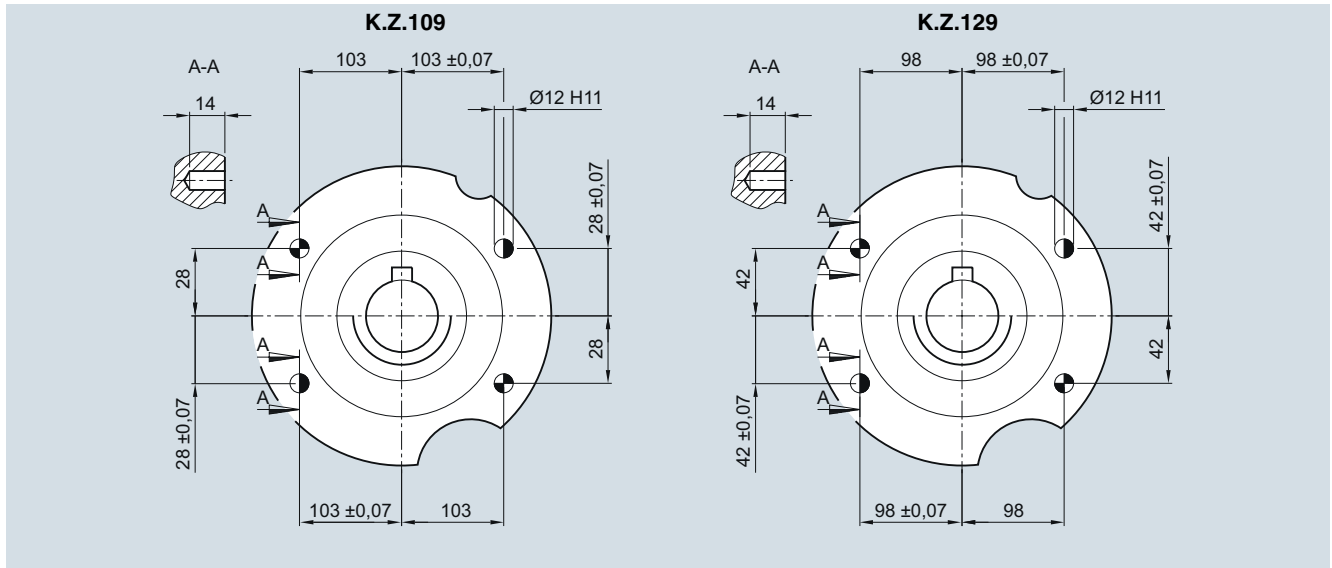
## Pin holes

In the case of gearboxes K.Z. 109 and K.Z. 129, the customer's interface can be pinned on the housing flange (C type).

The output flanges have been designed to ensure the reliable transmission of the permissible torques and radial forces by the bolt connections.

If additional fastening is required, in the case of high shock loads, for example, the existing drilled pin holes can be used.

The gearboxes can also be drilled and pinned together with the machine. The listed dimensions must be complied with.



- Spring pins, heavy-duty design, to DIN 1481: Use pin holes provided in the housing flange.
- Grooved cylindrical pins with chamfer to EN 28740 / ISO 8740: Drill connecting component together with housing.