

**Parallel shaft**

**geared motors**

4



# 4 Parallel shaft geared motors

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## Parallel shaft geared motors

Parallel shaft geared motors 2- or 3-stages  
Parallel shaft tandem geared motors 4 to 6-stage for especially low output speeds



**Fig. 4-1** Parallel shaft geared motor FZ/FD

Designs	Mounting	Frame sizes	Maximum output torque $T_{2N}$ Nm	Transmission ratio $i$	Maximum motor power $P_1$ kW	Supported motors
<ul style="list-style-type: none"> <li>_ Shaft-mounted design</li> <li>_ Flange-mounted design with or without VLplus reinforced bearing systems</li> <li>_ Design with integrated housing flange</li> <li>_ Foot-mounted design</li> <li>_ Tandem geared motors</li> </ul>	<ul style="list-style-type: none"> <li>_ Hollow shaft design with feather key</li> <li>_ Hollow shaft design with splined shaft</li> <li>_ Hollow shaft design with shrink disk</li> <li>_ Hollow shaft design with ShaftMount assembly system</li> <li>_ Solid shaft design with and without feather key</li> </ul>	FZ29 ... FZ189 FD29 ... FD189	150 ... 19000	3.5 ... 70.74 32 ... 413	55	<ul style="list-style-type: none"> <li>_ Permanent magnet motor</li> <li>_ Converter World Motor</li> <li>_ Induction motors</li> <li>_ Synchronous reluctance motors</li> <li>_ VSD10 line motors</li> <li>_ Explosion-protected motors</li> </ul>
		FZ29-Z19 ... FD189-D69		274 ... 29900	7.5	

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
0.09	<b>FD.69-LE63MEB6</b>								
	2.6	335	348.40	11400	1.8	30	2KJ3404- ■ BD21- ■ ■ S1 -Z	P01	
	2.9	295	309.78	11500	2	30	2KJ3404- ■ BD21- ■ ■ R1 -Z	P01	
	<b>FD.49-LE63MEB6</b>								
	2.7	315	330.98	8510	1.5	25	2KJ3403- ■ BD21- ■ ■ S1 -Z	P01	
	3	280	294.29	8610	1.7	25	2KJ3403- ■ BD21- ■ ■ R1 -Z	P01	
	3.5	245	258.40	8720	1.9	25	2KJ3403- ■ BD21- ■ ■ Q1 -Z	P01	
	<b>FD.39-LE63MEB6</b>								
	3.3	260	274.26	5930	1.1	16	2KJ3402- ■ BD21- ■ ■ R1 -Z	P01	
	3.7	230	243.26	6040	1.2	16	2KJ3402- ■ BD21- ■ ■ Q1 -Z	P01	
	4.2	200	211.06	6150	1.4	16	2KJ3402- ■ BD21- ■ ■ P1 -Z	P01	
	4.7	184	191.87	6210	1.6	16	2KJ3402- ■ BD21- ■ ■ N1 -Z	P01	
	<b>FD.39-LE63MCA4</b>								
	5.1	167	274.26	6270	1.7	15	2KJ3402- ■ BB21- ■ ■ R1 -Z	-	
	5.8	148	243.26	6340	2	15	2KJ3402- ■ BB21- ■ ■ Q1 -Z	-	
	<b>FD.29-LE63MCA4</b>								
	4.7	182	298.58	5220	0.82	9	2KJ3401- ■ BB21- ■ ■ Q1 -Z	-	
	5.3	161	264.39	5220	0.93	9	2KJ3401- ■ BB21- ■ ■ P1 -Z	-	
	6.1	140	229.72	5220	1.1	9	2KJ3401- ■ BB21- ■ ■ N1 -Z	-	
	6.8	127	208.83	5220	1.2	9	2KJ3401- ■ BB21- ■ ■ M1 -Z	-	
	7.9	108	177.71	5220	1.4	9	2KJ3401- ■ BB21- ■ ■ L1 -Z	-	
	8.7	98	161.55	5220	1.5	9	2KJ3401- ■ BB21- ■ ■ K1 -Z	-	
	10	86	140.86	5220	1.7	9	2KJ3401- ■ BB21- ■ ■ J1 -Z	-	
	11	77	126.09	5220	2	9	2KJ3401- ■ BB21- ■ ■ H1 -Z	-	
	13	68	111.97	5220	2.2	9	2KJ3401- ■ BB21- ■ ■ G1 -Z	-	
	14	63	103.36	5220	2.4	9	2KJ3401- ■ BB21- ■ ■ F1 -Z	-	
	16	55	89.78	5220	2.7	9	2KJ3401- ■ BB21- ■ ■ E1 -Z	-	
	18	48	78.02	5220	3.2	9	2KJ3401- ■ BB21- ■ ■ D1 -Z	-	
	20	43	70.43	5220	3.5	9	2KJ3401- ■ BB21- ■ ■ C1 -Z	-	
	21	40	66.29	5220	3.7	9	2KJ3401- ■ BB21- ■ ■ B1 -Z	-	
	24	35	57.79	5220	4.3	9	2KJ3401- ■ BB21- ■ ■ A1 -Z	-	
	<b>FZ.29-LE63MCA4</b>								
	25	35	56.73	5220	4.3	9	2KJ3301- ■ BB21- ■ ■ C2 -Z	-	
	28	31	50.32	5220	4.9	9	2KJ3301- ■ BB21- ■ ■ B2 -Z	-	
	32	27	43.66	5220	5.6	9	2KJ3301- ■ BB21- ■ ■ A2 -Z	-	
	36	24	39.69	5220	6.2	9	2KJ3301- ■ BB21- ■ ■ X1 -Z	-	
	41	21	34.04	5220	7.2	9	2KJ3301- ■ BB21- ■ ■ W1 -Z	-	
	46	19	30.95	5220	8	9	2KJ3301- ■ BB21- ■ ■ V1 -Z	-	
	52	16	27.13	5220	9.1	9	2KJ3301- ■ BB21- ■ ■ U1 -Z	-	
	58	15	24.22	5220	10	9	2KJ3301- ■ BB21- ■ ■ T1 -Z	-	
	65	13	21.58	5220	11	9	2KJ3301- ■ BB21- ■ ■ S1 -Z	-	
	71	12	19.92	5110	12	9	2KJ3301- ■ BB21- ■ ■ R1 -Z	-	
	81	11	17.44	4890	14	9	2KJ3301- ■ BB21- ■ ■ Q1 -Z	-	
	92	9.3	15.29	4690	16	9	2KJ3301- ■ BB21- ■ ■ P1 -Z	-	
	102	8.5	13.88	4540	18	9	2KJ3301- ■ BB21- ■ ■ N1 -Z	-	
	108	8	13.06	4460	19	9	2KJ3301- ■ BB21- ■ ■ M1 -Z	-	
	123	7	11.51	4280	20	9	2KJ3301- ■ BB21- ■ ■ L1 -Z	-	
	141	6.1	9.99	4080	22	9	2KJ3301- ■ BB21- ■ ■ K1 -Z	-	
	146	5.9	9.69	4040	24	9	2KJ3301- ■ BB21- ■ ■ J1 -Z	-	
	163	5.3	8.63	3890	25	9	2KJ3301- ■ BB21- ■ ■ H1 -Z	-	
177	4.9	7.97	3790	25	9	2KJ3301- ■ BB21- ■ ■ G1 -Z	-		
0.12	<b>FD.49-LE63ZMH4P</b>								
	4.2	270	330.98	8640	1.8	26	2KJ3403- ■ BD23- ■ ■ S1 -Z	-	
	4.7	240	294.29	8730	2	26	2KJ3403- ■ BD23- ■ ■ R1 -Z	-	
	<b>FD.39-LE63ZMH4P</b>								
	5.1	225	274.26	6060	1.3	17	2KJ3402- ■ BD23- ■ ■ R1 -Z	-	
	5.7	200	243.26	6150	1.4	17	2KJ3402- ■ BD23- ■ ■ Q1 -Z	-	
	6.6	174	211.06	6250	1.7	17	2KJ3402- ■ BD23- ■ ■ P1 -Z	-	
	7.2	158	191.87	6310	1.8	17	2KJ3402- ■ BD23- ■ ■ N1 -Z	-	
	8.4	136	164.56	6390	2.1	17	2KJ3402- ■ BD23- ■ ■ M1 -Z	-	

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles	
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)			
0.12	<b>FD.29-LE63ZMH4P</b>									
	6.7	172	208.83	5220	0.87	11	2KJ3401- BD23- M1	-Z -		
	7.8	147	177.71	5220	1	11	2KJ3401- BD23- L1	-Z -		
	8.6	133	161.55	5220	1.1	11	2KJ3401- BD23- K1	-Z -		
	9.9	116	140.86	5220	1.3	11	2KJ3401- BD23- J1	-Z -		
	11	104	126.09	5220	1.4	11	2KJ3401- BD23- H1	-Z -		
	12	92	111.97	5220	1.6	11	2KJ3401- BD23- G1	-Z -		
	13	85	103.36	5220	1.8	11	2KJ3401- BD23- F1	-Z -		
	15	74	89.78	5220	2	11	2KJ3401- BD23- E1	-Z -		
	18	64	78.02	5220	2.3	11	2KJ3401- BD23- D1	-Z -		
	20	58	70.43	5220	2.6	11	2KJ3401- BD23- C1	-Z -		
	21	55	66.29	5220	2.7	11	2KJ3401- BD23- B1	-Z -		
	24	48	57.79	5220	3.1	11	2KJ3401- BD23- A1	-Z -		
	4	<b>FZ.29-LE63ZMH4P</b>								
		25	47	56.73	5220	3.2	11	2KJ3301- BD23- C2	-Z -	
		28	42	50.32	5220	3.6	11	2KJ3301- BD23- B2	-Z -	
		32	36	43.66	5220	4.2	11	2KJ3301- BD23- A2	-Z -	
		35	33	39.69	5220	4.6	11	2KJ3301- BD23- X1	-Z -	
		41	28	34.04	5220	5.3	11	2KJ3301- BD23- W1	-Z -	
		45	26	30.95	5220	5.9	11	2KJ3301- BD23- V1	-Z -	
		51	22	27.13	5220	6.7	11	2KJ3301- BD23- U1	-Z -	
		57	20	24.22	5220	7.5	11	2KJ3301- BD23- T1	-Z -	
		64	18	21.58	5220	8.4	11	2KJ3301- BD23- S1	-Z -	
		70	16	19.92	5100	9.1	11	2KJ3301- BD23- R1	-Z -	
		80	14	17.44	4890	10	11	2KJ3301- BD23- Q1	-Z -	
		91	13	15.29	4680	12	11	2KJ3301- BD23- P1	-Z -	
		100	11	13.88	4550	13	11	2KJ3301- BD23- N1	-Z -	
		106	11	13.06	4450	14	11	2KJ3301- BD23- M1	-Z -	
		121	9.5	11.51	4280	15	11	2KJ3301- BD23- L1	-Z -	
		139	8.2	9.99	4090	16	11	2KJ3301- BD23- K1	-Z -	
		143	8	9.69	4040	18	11	2KJ3301- BD23- J1	-Z -	
		161	7.1	8.63	3890	18	11	2KJ3301- BD23- H1	-Z -	
		174	6.6	7.97	3790	18	11	2KJ3301- BD23- G1	-Z -	
199		5.8	6.98	3630	21	11	2KJ3301- BD23- F1	-Z -		
227		5	6.12	3480	23	11	2KJ3301- BD23- E1	-Z -		
250		4.6	5.55	3370	24	11	2KJ3301- BD23- D1	-Z -		
266		4.3	5.22	3300	25	11	2KJ3301- BD23- C1	-Z -		
0.18	<b>FD.79-LE71ZMK6P</b>									
	2.5	700	357.00	14200	1.4	39	2KJ3405- CC23- S1	-Z P01		
	2.7	635	324.62	14300	1.6	39	2KJ3405- CC23- R1	-Z P01		
	3.2	540	276.09	14500	1.8	39	2KJ3405- CC23- Q1	-Z P01		
	3.5	490	250.99	14500	2	39	2KJ3405- CC23- P1	-Z P01		
	<b>FD.69-LE71ZMK6P</b>									
	2.5	680	348.40	10600	0.88	32	2KJ3404- CC23- S1	-Z P01		
	2.8	605	309.78	10800	0.99	32	2KJ3404- CC23- R1	-Z P01		
	3.2	530	272.00	11000	1.1	32	2KJ3404- CC23- Q1	-Z P01		
	3.5	485	247.27	11100	1.2	32	2KJ3404- CC23- P1	-Z P01		
	<b>FD.69-LE63ZMK4P</b>									
	4	430	348.40	11200	1.4	31	2KJ3404- BE23- S1	-Z -		
	4.5	380	309.78	11300	1.6	31	2KJ3404- BE23- R1	-Z -		
	5.1	335	272.00	11400	1.8	31	2KJ3404- BE23- Q1	-Z -		
	5.6	305	247.27	11500	2	31	2KJ3404- BE23- P1	-Z -		
	<b>FD.49-LE71ZMK6P</b>									
	3	575	294.29	7340	0.83	27	2KJ3403- CC23- R1	-Z P01		
	3.4	505	258.40	7790	0.95	27	2KJ3403- CC23- Q1	-Z P01		
	3.7	460	234.91	8090	1	27	2KJ3403- CC23- P1	-Z P01		
	<b>FD.49-LE63ZMK4P</b>									
	4.2	410	330.98	8240	1.2	26	2KJ3403- BE23- S1	-Z -		
4.7	365	294.29	8370	1.3	26	2KJ3403- BE23- R1	-Z -			
5.4	320	258.40	8500	1.5	26	2KJ3403- BE23- Q1	-Z -			
5.9	290	234.91	8590	1.6	26	2KJ3403- BE23- P1	-Z -			

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
0.18	<b>FD.49-LE63ZMK4P</b>								
	6.9	245	200.98	8720	1.9	26	2KJ3403- BE23- N1 -Z -		
	7.6	225	182.71	8770	2.1	26	2KJ3403- BE23- M1 -Z -		
	<b>FD.39-LE63ZMK4P</b>								
	5	340	274.26	5630	0.85	17	2KJ3402- BE23- R1 -Z -		
	5.7	300	243.26	5780	0.96	17	2KJ3402- BE23- Q1 -Z -		
	6.6	260	211.06	5930	1.1	17	2KJ3402- BE23- P1 -Z -		
	7.2	235	191.87	6020	1.2	17	2KJ3402- BE23- M1 -Z -		
	8.4	200	164.56	6150	1.4	17	2KJ3402- BE23- N1 -Z -		
	9.3	186	149.60	6200	1.6	17	2KJ3402- BE23- L1 -Z -		
	11	163	131.17	6290	1.8	17	2KJ3402- BE23- K1 -Z -		
	12	145	117.08	6360	2	17	2KJ3402- BE23- J1 -Z -		
	13	130	104.34	6410	2.2	17	2KJ3402- BE23- H1 -Z -		
	<b>FD.29-LE63ZMK4P</b>								
	9.8	175	140.86	5220	0.86	11	2KJ3401- BE23- J1 -Z -		
	11	156	126.09	5220	0.96	11	2KJ3401- BE23- H1 -Z -		
	12	139	111.97	5220	1.1	11	2KJ3401- BE23- G1 -Z -		
	13	128	103.36	5220	1.2	11	2KJ3401- BE23- F1 -Z -		
	15	111	89.78	5220	1.3	11	2KJ3401- BE23- E1 -Z -		
	18	97	78.02	5220	1.5	11	2KJ3401- BE23- D1 -Z -		
	20	87	70.43	5220	1.7	11	2KJ3401- BE23- C1 -Z -		
	21	82	66.29	5220	1.8	11	2KJ3401- BE23- B1 -Z -		
	24	72	57.79	5220	2.1	11	2KJ3401- BE23- A1 -Z -		
	<b>FZ.29-LE63ZMK4P</b>								
	24	70	56.73	5220	2.1	11	2KJ3301- BE23- C2 -Z -		
	28	62	50.32	5220	2.4	11	2KJ3301- BE23- B2 -Z -		
	32	54	43.66	5220	2.8	11	2KJ3301- BE23- A2 -Z -		
	35	49	39.69	5220	3	11	2KJ3301- BE23- X1 -Z -		
	41	42	34.04	5220	3.6	11	2KJ3301- BE23- W1 -Z -		
	45	38	30.95	5220	3.9	11	2KJ3301- BE23- V1 -Z -		
	51	34	27.13	5220	4.5	11	2KJ3301- BE23- U1 -Z -		
	57	30	24.22	5220	5	11	2KJ3301- BE23- T1 -Z -		
	64	27	21.58	5160	5.6	11	2KJ3301- BE23- S1 -Z -		
	70	25	19.92	5030	6.1	11	2KJ3301- BE23- R1 -Z -		
	79	22	17.44	4830	6.9	11	2KJ3301- BE23- Q1 -Z -		
	91	19	15.29	4640	7.9	11	2KJ3301- BE23- P1 -Z -		
	100	17	13.88	4500	8.7	11	2KJ3301- BE23- N1 -Z -		
	106	16	13.06	4420	9.3	11	2KJ3301- BE23- M1 -Z -		
	120	14	11.51	4250	10	11	2KJ3301- BE23- L1 -Z -		
	139	12	9.99	4060	11	11	2KJ3301- BE23- K1 -Z -		
	143	12	9.69	4000	12	11	2KJ3301- BE23- J1 -Z -		
	160	11	8.63	3860	12	11	2KJ3301- BE23- H1 -Z -		
174	9.9	7.97	3760	12	11	2KJ3301- BE23- G1 -Z -			
198	8.7	6.98	3610	14	11	2KJ3301- BE23- F1 -Z -			
226	7.6	6.12	3460	15	11	2KJ3301- BE23- E1 -Z -			
250	6.9	5.55	3350	16	11	2KJ3301- BE23- D1 -Z -			
265	6.5	5.22	3290	16	11	2KJ3301- BE23- C1 -Z -			
301	5.7	4.60	3160	17	11	2KJ3301- BE23- B1 -Z -			
346	5	4.00	3020	18	11	2KJ3301- BE23- A1 -Z -			
<b>FZ.29-LE63MEB2P</b>									
163	10	17.44	3860	14	9	2KJ3301- BC23- Q1 -Z P00			
186	9.2	15.29	3690	16	9	2KJ3301- BC23- P1 -Z P00			
205	8.4	13.88	3580	18	9	2KJ3301- BC23- N1 -Z P00			
218	7.9	13.06	3510	19	9	2KJ3301- BC23- M1 -Z P00			
248	6.9	11.51	3370	21	9	2KJ3301- BC23- L1 -Z P00			
285	6	9.99	3220	23	9	2KJ3301- BC23- K1 -Z P00			
294	5.8	9.69	3180	24	9	2KJ3301- BC23- J1 -Z P00			
330	5.2	8.63	3060	25	9	2KJ3301- BC23- H1 -Z P00			
358	4.8	7.97	2990	25	9	2KJ3301- BC23- G1 -Z P00			

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
0.25	<b>FD.79-LE71YMS6P</b>								
	2.4	980	357.00	13600	1	40	2KJ3405- ■ CE23- ■ ■ S1	-Z	P01
	2.7	890	324.62	13800	1.1	40	2KJ3405- ■ CE23- ■ ■ R1	-Z	P01
	3.2	755	276.09	14100	1.3	40	2KJ3405- ■ CE23- ■ ■ Q1	-Z	P01
	3.5	685	250.99	14200	1.5	40	2KJ3405- ■ CE23- ■ ■ P1	-Z	P01
	<b>FD.79-LE71ZMK4P</b>								
	3.9	610	357.00	14300	1.6	39	2KJ3405- ■ CC23- ■ ■ S1	-Z	-
	4.3	555	324.62	14500	1.8	39	2KJ3405- ■ CC23- ■ ■ R1	-Z	-
	5.1	470	276.09	14500	2.1	39	2KJ3405- ■ CC23- ■ ■ Q1	-Z	-
	<b>FD.69-LE71YMS6P</b>								
	3.2	745	272.00	10500	0.8	33	2KJ3404- ■ CE23- ■ ■ Q1	-Z	P01
	3.5	675	247.27	10600	0.88	33	2KJ3404- ■ CE23- ■ ■ P1	-Z	P01
	<b>FD.69-LE71ZMK4P</b>								
	4	595	348.40	10800	1	32	2KJ3404- ■ CC23- ■ ■ S1	-Z	-
	4.5	530	309.78	11000	1.1	32	2KJ3404- ■ CC23- ■ ■ R1	-Z	-
	5.1	465	272.00	11100	1.3	32	2KJ3404- ■ CC23- ■ ■ Q1	-Z	-
	5.6	420	247.27	11200	1.4	32	2KJ3404- ■ CC23- ■ ■ P1	-Z	-
	6.6	360	211.56	11400	1.7	32	2KJ3404- ■ CC23- ■ ■ N1	-Z	-
	7.3	325	192.32	11500	1.8	32	2KJ3404- ■ CC23- ■ ■ M1	-Z	-
	8.2	290	170.00	11500	2.1	32	2KJ3404- ■ CC23- ■ ■ L1	-Z	-
	<b>FD.49-LE71ZMK4P</b>								
	4.2	565	330.98	7400	0.85	27	2KJ3403- ■ CC23- ■ ■ S1	-Z	-
	4.7	500	294.29	7820	0.95	27	2KJ3403- ■ CC23- ■ ■ R1	-Z	-
	5.4	440	258.40	8150	1.1	27	2KJ3403- ■ CC23- ■ ■ Q1	-Z	-
	5.9	400	234.91	8270	1.2	27	2KJ3403- ■ CC23- ■ ■ P1	-Z	-
	6.9	340	200.98	8440	1.4	27	2KJ3403- ■ CC23- ■ ■ N1	-Z	-
	7.6	310	182.71	8530	1.5	27	2KJ3403- ■ CC23- ■ ■ M1	-Z	-
	8.6	275	161.50	8630	1.7	27	2KJ3403- ■ CC23- ■ ■ L1	-Z	-
	9.5	250	146.82	8700	1.9	27	2KJ3403- ■ CC23- ■ ■ K1	-Z	-
	11	220	128.60	8790	2.2	27	2KJ3403- ■ CC23- ■ ■ J1	-Z	-
	<b>FD.39-LE71ZMK4P</b>								
	6.6	360	211.06	5560	0.8	18	2KJ3402- ■ CC23- ■ ■ P1	-Z	-
	7.3	325	191.87	5690	0.88	18	2KJ3402- ■ CC23- ■ ■ N1	-Z	-
	8.5	280	164.56	5850	1	18	2KJ3402- ■ CC23- ■ ■ M1	-Z	-
	9.3	255	149.60	5950	1.1	18	2KJ3402- ■ CC23- ■ ■ L1	-Z	-
	11	220	131.17	6080	1.3	18	2KJ3402- ■ CC23- ■ ■ K1	-Z	-
	12	200	117.08	6150	1.4	18	2KJ3402- ■ CC23- ■ ■ J1	-Z	-
	13	179	104.34	6230	1.6	18	2KJ3402- ■ CC23- ■ ■ H1	-Z	-
	14	165	96.31	6280	1.8	18	2KJ3402- ■ CC23- ■ ■ G1	-Z	-
	17	144	84.32	6360	2	18	2KJ3402- ■ CC23- ■ ■ F1	-Z	-
	19	127	73.93	6420	2.3	18	2KJ3402- ■ CC23- ■ ■ E1	-Z	-
	<b>FZ.39-LE71ZMK4P</b>								
	24	99	57.99	6530	2.3	17	2KJ3302- ■ CC23- ■ ■ A2	-Z	-
	<b>FD.29-LE71ZMK4P</b>								
	13	177	103.36	5220	0.85	11	2KJ3401- ■ CC23- ■ ■ F1	-Z	-
	16	154	89.78	5220	0.98	11	2KJ3401- ■ CC23- ■ ■ E1	-Z	-
	18	134	78.02	5220	1.1	11	2KJ3401- ■ CC23- ■ ■ D1	-Z	-
	20	121	70.43	5220	1.2	11	2KJ3401- ■ CC23- ■ ■ C1	-Z	-
	21	113	66.29	5220	1.3	11	2KJ3401- ■ CC23- ■ ■ B1	-Z	-
	24	99	57.79	5220	1.5	11	2KJ3401- ■ CC23- ■ ■ A1	-Z	-
	<b>FZ.29-LE71ZMK4P</b>								
	25	97	56.73	5220	1.5	11	2KJ3301- ■ CC23- ■ ■ C2	-Z	-
	28	86	50.32	5220	1.7	11	2KJ3301- ■ CC23- ■ ■ B2	-Z	-
	32	75	43.66	5220	2	11	2KJ3301- ■ CC23- ■ ■ A2	-Z	-
	35	68	39.69	5220	2.2	11	2KJ3301- ■ CC23- ■ ■ X1	-Z	-
	41	58	34.04	5220	2.6	11	2KJ3301- ■ CC23- ■ ■ W1	-Z	-
	45	53	30.95	5220	2.8	11	2KJ3301- ■ CC23- ■ ■ V1	-Z	-
	51	46	27.13	5220	3.2	11	2KJ3301- ■ CC23- ■ ■ U1	-Z	-
	58	42	24.22	5220	3.6	11	2KJ3301- ■ CC23- ■ ■ T1	-Z	-
	65	37	21.58	5060	4.1	11	2KJ3301- ■ CC23- ■ ■ S1	-Z	-
	70	34	19.92	4940	4.4	11	2KJ3301- ■ CC23- ■ ■ R1	-Z	-

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles	
0.25	<b>FZ.29-LE7IZMK4P</b>								
	80	30	17.44	4750	5	11	2KJ3301- CC23- Q1 -Z -		
	91	26	15.29	4570	5.7	11	2KJ3301- CC23- P1 -Z -		
	101	24	13.88	4430	6.3	11	2KJ3301- CC23- N1 -Z -		
	107	22	13.06	4360	6.7	11	2KJ3301- CC23- M1 -Z -		
	121	20	11.51	4180	7.3	11	2KJ3301- CC23- L1 -Z -		
	140	17	9.99	4010	8	11	2KJ3301- CC23- K1 -Z -		
	144	17	9.69	3940	8.6	11	2KJ3301- CC23- J1 -Z -		
	162	15	8.63	3810	8.8	11	2KJ3301- CC23- H1 -Z -		
	175	14	7.97	3710	8.8	11	2KJ3301- CC23- G1 -Z -		
	200	12	6.98	3560	10	11	2KJ3301- CC23- F1 -Z -		
	228	10	6.12	3430	11	11	2KJ3301- CC23- E1 -Z -		
	251	9.5	5.55	3320	11	11	2KJ3301- CC23- D1 -Z -		
	267	8.9	5.22	3260	12	11	2KJ3301- CC23- C1 -Z -		
	303	7.9	4.60	3130	12	11	2KJ3301- CC23- B1 -Z -		
	349	6.8	4.00	2990	13	11	2KJ3301- CC23- A1 -Z -		
	0.37	<b>FZ.29-LE63ZMH2P</b>							
		163	15	17.44	3820	10	11	2KJ3301- BD23- Q1 -Z P00	
		185	13	15.29	3670	12	11	2KJ3301- BD23- P1 -Z P00	
		204	12	13.88	3560	13	11	2KJ3301- BD23- N1 -Z P00	
		217	11	13.06	3490	14	11	2KJ3301- BD23- M1 -Z P00	
		246	9.7	11.51	3350	15	11	2KJ3301- BD23- L1 -Z P00	
	0.37	<b>FD.89-LE80MK6P</b>							
		2.8	1280	335.30	17400	1.4	75	2KJ3406- DE23- S1 -Z P01	
		3	1160	304.82	17400	1.6	75	2KJ3406- DE23- R1 -Z P01	
		3.4	1040	273.41	17400	1.8	75	2KJ3406- DE23- Q1 -Z P01	
3.8		935	245.82	17400	2	75	2KJ3406- DE23- P1 -Z P01		
0.37		<b>FD.79-FZ71MAA6TV</b>							
		4.2	840	357.00	14800	1.2	35	2KJ3405- CG25- S1 -Z P01	
		4.6	760	324.62	14800	1.3	35	2KJ3405- CG25- R1 -Z P01	
		5.4	650	276.09	14800	1.5	35	2KJ3405- CG25- Q1 -Z P01	
		6.0	590	250.99	14800	1.7	35	2KJ3405- CG25- P1 -Z P01	
		6.7	525	223.94	14800	1.9	35	2KJ3405- CG25- N1 -Z P01	
		7.5	470	200.80	14800	2.1	35	2KJ3405- CG25- M1 -Z P01	
		0.37	<b>FD.79-LE80MK6P</b>						
2.8			1240	324.62	13100	0.81	44	2KJ3405- DE23- R1 -Z P01	
3.4			1050	276.09	13500	0.95	44	2KJ3405- DE23- Q1 -Z P01	
3.7		955	250.99	13700	1	44	2KJ3405- DE23- P1 -Z P01		
0.37		<b>FD.79-LE71YMS4P</b>							
		3.9	910	357.00	13700	1.1	40	2KJ3405- CE23- S1 -Z -	
		4.3	830	324.62	13900	1.2	40	2KJ3405- CE23- R1 -Z -	
		5	705	276.09	14200	1.4	40	2KJ3405- CE23- Q1 -Z -	
		5.5	640	250.99	14300	1.6	40	2KJ3405- CE23- P1 -Z -	
		6.2	570	223.94	14400	1.7	40	2KJ3405- CE23- N1 -Z -	
		6.9	510	200.80	14500	1.9	40	2KJ3405- CE23- M1 -Z -	
		0.37	<b>FD.69-FZ71MAA6TV</b>						
4.8			725	309.78	11200	0.82	29	2KJ3404- CG25- R1 -Z P01	
5.5			640	272.00	11700	0.94	29	2KJ3404- CG25- Q1 -Z P01	
6.1	580		247.27	12100	1.0	29	2KJ3404- CG25- P1 -Z P01		
7.1	495		211.56	12400	1.2	29	2KJ3404- CG25- N1 -Z P01		
7.8	450		192.32	12400	1.3	29	2KJ3404- CG25- M1 -Z P01		
8.8	400		170.00	12400	1.5	29	2KJ3404- CG25- L1 -Z P01		
9.7	360		154.55	12400	1.6	29	2KJ3404- CG25- K1 -Z P01		
11.1	315		135.37	12400	1.9	29	2KJ3404- CG25- J1 -Z P01		
12.0	290		124.96	12400	2.0	29	2KJ3404- CG25- H1 -Z P01		
0.37	<b>FD.69-LE71YMS4P</b>								
	5.1		695	272.00	10600	0.86	33	2KJ3404- CE23- Q1 -Z -	
	5.6	630	247.27	10700	0.95	33	2KJ3404- CE23- P1 -Z -		
	6.5	540	211.56	11000	1.1	33	2KJ3404- CE23- N1 -Z -		
	7.2	490	192.32	11100	1.2	33	2KJ3404- CE23- M1 -Z -		
	8.1	435	170.00	11200	1.4	33	2KJ3404- CE23- L1 -Z -		

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
0.37	<b>FD.69-LE71YMS4P</b>								
	8.9	395	154.55	11300	1.5	33	2KJ3404-	CE23-	K1 -Z -
	10	345	135.37	11400	1.7	33	2KJ3404-	CE23-	J1 -Z -
	11	320	124.96	11500	1.9	33	2KJ3404-	CE23-	H1 -Z -
	12	280	110.63	11600	2.1	33	2KJ3404-	CE23-	G1 -Z -
	<b>FD.49-FZ71MAA6TV</b>								
	6.4	550	234.91	7510	0.87	24	2KJ3403-	CG25-	P1 -Z P01
	7.5	470	200.98	8030	1.0	24	2KJ3403-	CG25-	N1 -Z P01
	8.2	430	182.71	8190	1.1	24	2KJ3403-	CG25-	M1 -Z P01
	9.3	380	161.50	8330	1.3	24	2KJ3403-	CG25-	L1 -Z P01
	10.2	345	146.82	8430	1.4	24	2KJ3403-	CG25-	K1 -Z P01
	11.7	300	128.60	8560	1.6	24	2KJ3403-	CG25-	J1 -Z P01
	12.6	275	118.71	8630	1.7	24	2KJ3403-	CG25-	H1 -Z P01
	14.3	245	105.10	8720	1.9	24	2KJ3403-	CG25-	G1 -Z P01
	17.1	205	87.48	8840	2.3	24	2KJ3403-	CG25-	F1 -Z P01
	<b>FD.49-LE71YMS4P</b>								
	5.9	600	234.91	7170	0.8	28	2KJ3403-	CE23-	P1 -Z -
	6.9	515	200.98	7720	0.93	28	2KJ3403-	CE23-	N1 -Z -
	7.6	465	182.71	8060	1	28	2KJ3403-	CE23-	M1 -Z -
8.5	410	161.50	8240	1.2	28	2KJ3403-	CE23-	L1 -Z -	
9.4	375	146.82	8340	1.3	28	2KJ3403-	CE23-	K1 -Z -	
11	325	128.60	8480	1.5	28	2KJ3403-	CE23-	J1 -Z -	
12	300	118.71	8560	1.6	28	2KJ3403-	CE23-	H1 -Z -	
13	265	105.10	8660	1.8	28	2KJ3403-	CE23-	G1 -Z -	
16	220	87.48	8790	2.1	28	2KJ3403-	CE23-	F1 -Z -	
17	210	82.33	8820	2.3	28	2KJ3403-	CE23-	E1 -Z -	
<b>FD.39-FZ71MAA6TV</b>									
10.0	350	149.60	4660	0.82	16	2KJ3402-	CG25-	L1 -Z P01	
11.4	305	131.17	4800	0.94	16	2KJ3402-	CG25-	K1 -Z P01	
12.8	275	117.08	4900	1.1	16	2KJ3402-	CG25-	J1 -Z P01	
14.4	245	104.34	4990	1.2	16	2KJ3402-	CG25-	H1 -Z P01	
15.6	225	96.31	5050	1.3	16	2KJ3402-	CG25-	G1 -Z P01	
17.8	198	84.32	5140	1.5	16	2KJ3402-	CG25-	F1 -Z P01	
20	174	73.93	5210	1.7	16	2KJ3402-	CG25-	E1 -Z P01	
<b>FD.39-LE71YMS4P</b>									
11	335	131.17	5650	0.86	19	2KJ3402-	CE23-	K1 -Z -	
12	300	117.08	5780	0.97	19	2KJ3402-	CE23-	J1 -Z -	
13	265	104.34	5910	1.1	19	2KJ3402-	CE23-	H1 -Z -	
14	245	96.31	5980	1.2	19	2KJ3402-	CE23-	G1 -Z -	
16	215	84.32	6100	1.3	19	2KJ3402-	CE23-	F1 -Z -	
19	189	73.93	6190	1.5	19	2KJ3402-	CE23-	E1 -Z -	
21	172	67.07	6260	1.7	19	2KJ3402-	CE23-	D1 -Z -	
22	162	63.13	6290	1.8	19	2KJ3402-	CE23-	C1 -Z -	
25	142	55.65	6370	2	19	2KJ3402-	CE23-	B1 -Z -	
29	124	48.29	6430	2.3	19	2KJ3402-	CE23-	A1 -Z -	
<b>FZ.39-FZ71MAA6TV</b>									
23	153	65.21	5280	1.9	16	2KJ3302-	CG25-	B2 -Z P01	
26	136	57.99	5330	1.7	16	2KJ3302-	CG25-	A2 -Z P01	
29	119	50.91	5380	2.0	16	2KJ3302-	CG25-	X1 -Z P01	
32	109	46.29	5410	2.3	16	2KJ3302-	CG25-	W1 -Z P01	
<b>FZ.39-LE71YMS4P</b>									
21	167	65.21	6270	1.7	19	2KJ3302-	CE23-	B2 -Z -	
24	148	57.99	6340	1.5	19	2KJ3302-	CE23-	A2 -Z -	
27	130	50.91	6410	1.8	19	2KJ3302-	CE23-	X1 -Z -	
30	119	46.29	6450	2.2	19	2KJ3302-	CE23-	W1 -Z -	
<b>FD.29-FZ71MAA6TV</b>									
19.2	183	78.02	4710	0.82	10	2KJ3401-	CG25-	D1 -Z P01	
21	165	70.43	4710	0.90	10	2KJ3401-	CG25-	C1 -Z P01	
23	156	66.29	4710	0.96	10	2KJ3401-	CG25-	B1 -Z P01	
<b>FD.29-LE71YMS4P</b>									
20	180	70.43	5220	0.83	13	2KJ3401-	CE23-	C1 -Z -	

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
0.37	<b>FD.29-LE71YMS4P</b>								
	21	170	66.29	5220	0.88	13	2KJ3401- ■ CE23- ■ ■ B1 -Z -		
	24	148	57.79	5220	1	13	2KJ3401- ■ CE23- ■ ■ A1 -Z -		
	<b>FZ.29-FZ71MAA6TV</b>								
	26	133	56.73	4710	1.1	10	2KJ3301- ■ CG25- ■ ■ C2 -Z P01		
	30	118	50.32	4710	1.3	10	2KJ3301- ■ CG25- ■ ■ B2 -Z P01		
	34	102	43.66	4710	1.5	10	2KJ3301- ■ CG25- ■ ■ A2 -Z P01		
	38	93	39.69	4710	1.6	10	2KJ3301- ■ CG25- ■ ■ X1 -Z P01		
	44	80	34.04	4710	1.9	10	2KJ3301- ■ CG25- ■ ■ W1 -Z P01		
	48	72	30.95	4710	2.1	10	2KJ3301- ■ CG25- ■ ■ V1 -Z P01		
	55	63	27.13	4710	2.3	10	2KJ3301- ■ CG25- ■ ■ U1 -Z P01		
	62	57	24.22	4710	2.6	10	2KJ3301- ■ CG25- ■ ■ T1 -Z P01		
	70	50	21.58	4620	3.0	10	2KJ3301- ■ CG25- ■ ■ S1 -Z P01		
	75	46	19.92	4520	3.2	10	2KJ3301- ■ CG25- ■ ■ R1 -Z P01		
	86	41	17.44	4350	3.7	10	2KJ3301- ■ CG25- ■ ■ Q1 -Z P01		
	98	36	15.29	4190	4.2	10	2KJ3301- ■ CG25- ■ ■ P1 -Z P01		
	108	32	13.88	4080	4.6	10	2KJ3301- ■ CG25- ■ ■ N1 -Z P01		
	115	30	13.06	4010	4.9	10	2KJ3301- ■ CG25- ■ ■ M1 -Z P01		
	130	27	11.51	3850	5.3	10	2KJ3301- ■ CG25- ■ ■ L1 -Z P01		
	150	23	9.99	3700	5.8	10	2KJ3301- ■ CG25- ■ ■ K1 -Z P01		
	155	22	9.69	3630	6.3	10	2KJ3301- ■ CG25- ■ ■ J1 -Z P01		
	174	20	8.63	3510	6.4	10	2KJ3301- ■ CG25- ■ ■ H1 -Z P01		
	188	18	7.97	3430	6.4	10	2KJ3301- ■ CG25- ■ ■ G1 -Z P01		
	215	16	6.98	3290	7.5	10	2KJ3301- ■ CG25- ■ ■ F1 -Z P01		
	245	14	6.12	3160	7.9	10	2KJ3301- ■ CG25- ■ ■ E1 -Z P01		
	270	13	5.55	3070	8.3	10	2KJ3301- ■ CG25- ■ ■ D1 -Z P01		
	287	12	5.22	3010	8.6	10	2KJ3301- ■ CG25- ■ ■ C1 -Z P01		
	326	10	4.60	2900	9.0	10	2KJ3301- ■ CG25- ■ ■ B1 -Z P01		
	375	9.4	4.00	2770	9.7	10	2KJ3301- ■ CG25- ■ ■ A1 -Z P01		
	<b>FZ.29-LE71YMS4P</b>								
	24	145	56.73	5220	1	12	2KJ3301- ■ CE23- ■ ■ C2 -Z -		
	27	129	50.32	5220	1.2	12	2KJ3301- ■ CE23- ■ ■ B2 -Z -		
	32	112	43.66	5220	1.3	12	2KJ3301- ■ CE23- ■ ■ A2 -Z -		
	35	102	39.69	5220	1.5	12	2KJ3301- ■ CE23- ■ ■ X1 -Z -		
	41	87	34.04	5220	1.7	12	2KJ3301- ■ CE23- ■ ■ W1 -Z -		
	45	79	30.95	5220	1.9	12	2KJ3301- ■ CE23- ■ ■ V1 -Z -		
	51	70	27.13	5220	2.2	12	2KJ3301- ■ CE23- ■ ■ U1 -Z -		
	57	62	24.22	5080	2.4	12	2KJ3301- ■ CE23- ■ ■ T1 -Z -		
	64	55	21.58	4930	2.7	12	2KJ3301- ■ CE23- ■ ■ S1 -Z -		
	69	51	19.92	4820	2.9	12	2KJ3301- ■ CE23- ■ ■ R1 -Z -		
	79	45	17.44	4640	3.4	12	2KJ3301- ■ CE23- ■ ■ Q1 -Z -		
	90	39	15.29	4480	3.8	12	2KJ3301- ■ CE23- ■ ■ P1 -Z -		
	99	36	13.88	4350	4.2	12	2KJ3301- ■ CE23- ■ ■ N1 -Z -		
	106	33	13.06	4280	4.5	12	2KJ3301- ■ CE23- ■ ■ M1 -Z -		
	120	30	11.51	4120	4.9	12	2KJ3301- ■ CE23- ■ ■ L1 -Z -		
	138	26	9.99	3950	5.3	12	2KJ3301- ■ CE23- ■ ■ K1 -Z -		
	142	25	9.69	3880	5.8	12	2KJ3301- ■ CE23- ■ ■ J1 -Z -		
	160	22	8.63	3750	5.9	12	2KJ3301- ■ CE23- ■ ■ H1 -Z -		
	173	20	7.97	3670	5.9	12	2KJ3301- ■ CE23- ■ ■ G1 -Z -		
198	18	6.98	3520	6.9	12	2KJ3301- ■ CE23- ■ ■ F1 -Z -			
225	16	6.12	3380	7.3	12	2KJ3301- ■ CE23- ■ ■ E1 -Z -			
249	14	5.55	3290	7.6	12	2KJ3301- ■ CE23- ■ ■ D1 -Z -			
264	13	5.22	3230	7.9	12	2KJ3301- ■ CE23- ■ ■ C1 -Z -			
300	12	4.60	3100	8.2	12	2KJ3301- ■ CE23- ■ ■ B1 -Z -			
345	10	4.00	2970	8.9	12	2KJ3301- ■ CE23- ■ ■ A1 -Z -			
	<b>FZ.29-LE71ZMH2P</b>								
	159	22	17.44	3790	6.7	10	2KJ3301- ■ CB23- ■ ■ Q1 -Z P00		
	181	20	15.29	3640	7.7	10	2KJ3301- ■ CB23- ■ ■ P1 -Z P00		
	200	18	13.88	3530	8.5	10	2KJ3301- ■ CB23- ■ ■ M1 -Z P00		
	212	17	13.06	3470	9	10	2KJ3301- ■ CB23- ■ ■ N1 -Z P00		
241	15	11.51	3340	9.7	10	2KJ3301- ■ CB23- ■ ■ L1 -Z P00			

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
0.37	<b>FZ.29-LE71ZMH2P</b>							
	277	13	9.99	3190	11	10	2KJ3301- CB23- K1 -Z	P00
	286	12	9.69	3150	12	10	2KJ3301- CB23- J1 -Z	P00
	321	11	8.63	3040	12	10	2KJ3301- CB23- H1 -Z	P00
	348	10	7.97	2960	12	10	2KJ3301- CB23- G1 -Z	P00
	397	8.9	6.98	2840	14	10	2KJ3301- CB23- F1 -Z	P00
	453	7.8	6.12	2730	15	10	2KJ3301- CB23- E1 -Z	P00
	499	7.1	5.55	2640	15	10	2KJ3301- CB23- D1 -Z	P00
	0.55	<b>FD.89-LE80ZMQ6P</b>						
2.8		1880	335.30	17400	0.98	75	2KJ3406- DF23- S1 -Z	P01
3.1		1710	304.82	17400	1.1	75	2KJ3406- DF23- R1 -Z	P01
3.4		1530	273.41	17400	1.2	75	2KJ3406- DF23- Q1 -Z	P01
3.8		1380	245.82	17400	1.3	75	2KJ3406- DF23- P1 -Z	P01
<b>FD.89-LE80MH4P</b>								
4.3		1220	335.30	17400	1.5	76	2KJ3406- DC23- S1 -Z	-
4.7		1110	304.82	17400	1.7	76	2KJ3406- DC23- R1 -Z	-
5.3		995	273.41	17400	1.9	76	2KJ3406- DC23- Q1 -Z	-
5.9		895	245.82	17400	2.1	76	2KJ3406- DC23- P1 -Z	-
<b>FD.79-FZ7IMCA6TV</b>								
4.2		1250	357.00	14800	0.80	36	2KJ3405- CH25- S1 -Z	P01
4.6		1130	324.62	14800	0.88	36	2KJ3405- CH25- R1 -Z	P01
5.4		965	276.09	14800	1.0	36	2KJ3405- CH25- Q1 -Z	P01
6.0		875	250.99	14800	1.1	36	2KJ3405- CH25- P1 -Z	P01
6.7		780	223.94	14800	1.3	36	2KJ3405- CH25- M1 -Z	P01
7.5		700	200.80	14800	1.4	36	2KJ3405- CH25- N1 -Z	P01
8.3		630	180.99	14800	1.6	36	2KJ3405- CH25- L1 -Z	P01
9.0		585	167.07	14800	1.7	36	2KJ3405- CH25- K1 -Z	P01
9.8		530	152.51	14800	1.9	36	2KJ3405- CH25- J1 -Z	P01
<b>FD.79-LE80MH4P</b>								
4.4		1180	324.62	13200	0.84	45	2KJ3405- DC23- R1 -Z	-
5.2		1000	276.09	13600	0.99	45	2KJ3405- DC23- Q1 -Z	-
5.7		915	250.99	13700	1.1	45	2KJ3405- DC23- P1 -Z	-
6.4		815	223.94	13900	1.2	45	2KJ3405- DC23- N1 -Z	-
7.2		730	200.80	14100	1.4	45	2KJ3405- DC23- M1 -Z	-
8		660	180.99	14200	1.5	45	2KJ3405- DC23- L1 -Z	-
8.6		605	167.07	14400	1.6	45	2KJ3405- DC23- K1 -Z	-
9.4		555	152.51	14500	1.8	45	2KJ3405- DC23- J1 -Z	-
11		460	126.54	14500	2.2	45	2KJ3405- DC23- H1 -Z	-
<b>FD.69-FZ7IMCA6TV</b>								
7.1		740	211.56	11100	0.81	30	2KJ3404- CH25- N1 -Z	P01
7.8		670	192.32	11500	0.89	30	2KJ3404- CH25- M1 -Z	P01
8.8	595	170.00	12000	1.0	30	2KJ3404- CH25- L1 -Z	P01	
9.7	540	154.55	12300	1.1	30	2KJ3404- CH25- K1 -Z	P01	
11.1	470	135.37	12400	1.3	30	2KJ3404- CH25- J1 -Z	P01	
12.0	435	124.96	12400	1.4	30	2KJ3404- CH25- H1 -Z	P01	
13.6	385	110.63	12400	1.5	30	2KJ3404- CH25- G1 -Z	P01	
16.3	320	92.08	12400	1.9	30	2KJ3404- CH25- F1 -Z	P01	
17.3	300	86.67	12400	2.0	30	2KJ3404- CH25- E1 -Z	P01	
19.3	270	77.65	12400	2.2	30	2KJ3404- CH25- D1 -Z	P01	
<b>FD.69-LE80MH4P</b>								
7.5	700	192.32	10600	0.86	38	2KJ3404- DC23- M1 -Z	-	
8.5	620	170.00	10800	0.97	38	2KJ3404- DC23- L1 -Z	-	
9.3	560	154.55	10900	1.1	38	2KJ3404- DC23- K1 -Z	-	
11	490	135.37	11100	1.2	38	2KJ3404- DC23- J1 -Z	-	
12	455	124.96	11200	1.3	38	2KJ3404- DC23- H1 -Z	-	
13	400	110.63	11300	1.5	38	2KJ3404- DC23- G1 -Z	-	
16	335	92.08	11400	1.8	38	2KJ3404- DC23- F1 -Z	-	
17	315	86.67	11500	1.9	38	2KJ3404- DC23- E1 -Z	-	
19	280	77.65	11600	2.1	38	2KJ3404- DC23- D1 -Z	-	
<b>FD.49-FZ7IMCA6TV</b>								
9.3	565	161.50	7410	0.85	25	2KJ3403- CH25- L1 -Z	P01	

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
<b>0.55</b>	<b>FD.49-FZ71MCA6TV</b>								
	10.2	510	146.82	7760	0.93	25	2KJ3403- CH25- K1 -Z	P01	
	11.7	450	128.60	8130	1.1	25	2KJ3403- CH25- J1 -Z	P01	
	12.6	415	118.71	8230	1.2	25	2KJ3403- CH25- H1 -Z	P01	
	14.3	365	105.10	8370	1.3	25	2KJ3403- CH25- G1 -Z	P01	
	17.1	305	87.48	8480	1.6	25	2KJ3403- CH25- F1 -Z	P01	
	18.2	285	82.33	8410	1.7	25	2KJ3403- CH25- E1 -Z	P01	
	20	255	73.77	8230	1.9	25	2KJ3403- CH25- D1 -Z	P01	
	<b>FD.49-LE80MH4P</b>								
	8.9	585	161.50	7270	0.81	33	2KJ3403- DC23- L1 -Z	-	
9.8	535	146.82	7600	0.9	33	2KJ3403- DC23- K1 -Z	-		
11	465	128.60	8060	1	33	2KJ3403- DC23- H1 -Z	-		
12	430	118.71	8180	1.1	33	2KJ3403- DC23- J1 -Z	-		
14	380	105.10	8330	1.3	33	2KJ3403- DC23- G1 -Z	-		
16	315	87.48	8510	1.5	33	2KJ3403- DC23- F1 -Z	-		
17	300	82.33	8560	1.6	33	2KJ3403- DC23- E1 -Z	-		
20	265	73.77	8660	1.8	33	2KJ3403- DC23- D1 -Z	-		
23	225	62.81	8770	2.1	33	2KJ3403- DC23- C1 -Z	-		
27	196	53.83	8450	2.4	33	2KJ3403- DC23- B1 -Z	-		
<b>FZ.49-FZ71MCA6TV</b>									
24	215	61.43	7910	2.2	25	2KJ3303- CH25- X1 -Z	P01		
27	195	55.85	7750	2.5	25	2KJ3303- CH25- W1 -Z	P01		
<b>FZ.49-LE80MH4P</b>									
23	220	61.43	8730	2.1	32	2KJ3303- DC23- X1 -Z	-		
26	200	55.85	8540	2.4	32	2KJ3303- DC23- W1 -Z	-		
<b>FD.39-FZ71MCA6TV</b>									
15.6	335	96.31	4710	0.86	17	2KJ3402- CH25- G1 -Z	P01		
17.8	295	84.32	4840	0.98	17	2KJ3402- CH25- F1 -Z	P01		
20	255	73.93	4960	1.1	17	2KJ3402- CH25- E1 -Z	P01		
27	194	55.65	5150	1.5	17	2KJ3402- CH25- B1 -Z	P01		
<b>FD.39-LE80MH4P</b>									
15	350	96.31	5590	0.83	23	2KJ3402- DC23- G1 -Z	-		
17	305	84.32	5760	0.94	23	2KJ3402- DC23- F1 -Z	-		
19	270	73.93	5890	1.1	23	2KJ3402- DC23- E1 -Z	-		
21	245	67.07	5980	1.2	23	2KJ3402- DC23- D1 -Z	-		
23	230	63.13	6040	1.3	23	2KJ3402- DC23- C1 -Z	-		
26	200	55.65	6150	1.4	23	2KJ3402- DC23- B1 -Z	-		
30	176	48.29	6240	1.6	23	2KJ3402- DC23- A1 -Z	-		
<b>FZ.39-FZ71MCA6TV</b>									
23	225	65.21	5050	1.3	17	2KJ3302- CH25- B2 -Z	P01		
26	200	57.99	5130	1.1	17	2KJ3302- CH25- A2 -Z	P01		
29	178	50.91	5200	1.3	17	2KJ3302- CH25- X1 -Z	P01		
32	162	46.29	5250	1.6	17	2KJ3302- CH25- W1 -Z	P01		
38	138	39.60	5320	2.1	17	2KJ3302- CH25- V1 -Z	P01		
42	126	36.00	5360	2.0	17	2KJ3302- CH25- U1 -Z	P01		
47	111	31.82	5410	2.6	17	2KJ3302- CH25- T1 -Z	P01		
52	101	28.93	5440	2.7	17	2KJ3302- CH25- S1 -Z	P01		
59	88	25.34	5480	3.0	17	2KJ3302- CH25- R1 -Z	P01		
<b>FZ.39-LE80MH4P</b>									
25	210	57.99	6110	1.1	23	2KJ3302- DC23- A2 -Z	-		
28	186	50.91	6200	1.3	23	2KJ3302- DC23- X1 -Z	-		
31	169	46.29	6270	1.5	23	2KJ3302- DC23- W1 -Z	-		
36	144	39.60	6360	2	23	2KJ3302- DC23- V1 -Z	-		
40	131	36.00	6410	1.9	23	2KJ3302- DC23- U1 -Z	-		
45	116	31.82	6460	2.5	23	2KJ3302- DC23- T1 -Z	-		
50	106	28.93	6500	2.6	23	2KJ3302- DC23- S1 -Z	-		
57	92	25.34	6390	2.9	23	2KJ3302- DC23- R1 -Z	-		
62	85	23.39	6260	3	23	2KJ3302- DC23- Q1 -Z	-		
<b>FZ.29-FZ71MCA6TV</b>									
30	176	50.32	4710	0.85	10	2KJ3301- CH25- B2 -Z	P01		
34	152	43.66	4710	0.98	10	2KJ3301- CH25- A2 -Z	P01		

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles	
0.55	<b>FZ.29-FZ71MCA6TV</b>								
	38	138	39.69	4710	1.1	10	2KJ3301- CH25- X1 -Z	P01	
	44	119	34.04	4710	1.3	10	2KJ3301- CH25- W1 -Z	P01	
	48	108	30.95	4710	1.4	10	2KJ3301- CH25- V1 -Z	P01	
	55	95	27.13	4670	1.6	10	2KJ3301- CH25- U1 -Z	P01	
	62	84	24.22	4550	1.8	10	2KJ3301- CH25- T1 -Z	P01	
	70	75	21.58	4430	2.0	10	2KJ3301- CH25- S1 -Z	P01	
	75	69	19.92	4340	2.2	10	2KJ3301- CH25- R1 -Z	P01	
	86	61	17.44	4190	2.5	10	2KJ3301- CH25- Q1 -Z	P01	
	98	53	15.29	4050	2.8	10	2KJ3301- CH25- P1 -Z	P01	
	108	48	13.88	3950	3.1	10	2KJ3301- CH25- N1 -Z	P01	
	115	45	13.06	3890	3.3	10	2KJ3301- CH25- M1 -Z	P01	
	130	40	11.51	3750	3.5	10	2KJ3301- CH25- L1 -Z	P01	
	150	34	9.99	3610	3.9	10	2KJ3301- CH25- K1 -Z	P01	
	188	27	7.97	3350	4.3	10	2KJ3301- CH25- G1 -Z	P01	
	0.75	<b>FZ.29-LE80MH4P</b>							
		29	184	50.32	5220	0.82	17	2KJ3301- DC23- B2 -Z	-
		33	159	43.66	5220	0.94	17	2KJ3301- DC23- A2 -Z	-
		36	145	39.69	5220	1	17	2KJ3301- DC23- X1 -Z	-
		42	124	34.04	5150	1.2	17	2KJ3301- DC23- W1 -Z	-
		47	113	30.95	5050	1.3	17	2KJ3301- DC23- V1 -Z	-
		53	99	27.13	4910	1.5	17	2KJ3301- DC23- U1 -Z	-
		59	88	24.22	4790	1.7	17	2KJ3301- DC23- T1 -Z	-
		67	79	21.58	4650	1.9	17	2KJ3301- DC23- S1 -Z	-
		72	73	19.92	4560	2.1	17	2KJ3301- DC23- R1 -Z	-
		83	64	17.44	4410	2.4	17	2KJ3301- DC23- Q1 -Z	-
		94	56	15.29	4270	2.7	17	2KJ3301- DC23- P1 -Z	-
		104	51	13.88	4160	3	17	2KJ3301- DC23- N1 -Z	-
		110	48	13.06	4090	3.1	17	2KJ3301- DC23- M1 -Z	-
		125	42	11.51	3960	3.4	17	2KJ3301- DC23- L1 -Z	-
		144	36	9.99	3810	3.7	17	2KJ3301- DC23- K1 -Z	-
		149	35	9.69	3720	4	17	2KJ3301- DC23- J1 -Z	-
		167	32	8.63	3600	4.1	17	2KJ3301- DC23- H1 -Z	-
		181	29	7.97	3530	4.1	17	2KJ3301- DC23- G1 -Z	-
		0.75	<b>FD.129-LE90SQ6P</b>						
2.3	3130		413.00	37500	1.5	171	2KJ3408- EC23- T1 -Z	P01	
2.5	2880		381.00	37500	1.7	171	2KJ3408- EC23- S1 -Z	P01	
2.7	2660		351.00	37500	1.8	171	2KJ3408- EC23- R1 -Z	P01	
0.75	<b>FD.109-LE90SQ6P</b>								
	2.3		3100	410.00	25000	1	118	2KJ3407- EC23- T1 -Z	P01
	2.6		2800	370.00	25000	1.1	118	2KJ3407- EC23- S1 -Z	P01
	2.8		2540	335.70	25000	1.2	118	2KJ3407- EC23- R1 -Z	P01
	3		2340	309.87	25000	1.3	118	2KJ3407- EC23- Q1 -Z	P01
0.75	<b>FD.89-LE90SQ6P</b>								
	3.1		2310	304.82	17400	0.8	78	2KJ3406- EC23- R1 -Z	P01
	3.5		2070	273.41	17400	0.89	78	2KJ3406- EC23- Q1 -Z	P01
	3.8		1860	245.82	17400	0.99	78	2KJ3406- EC23- P1 -Z	P01
0.75	<b>FD.89-LE80ZMQ4P</b>								
	4.3		1650	335.30	17400	1.1	75	2KJ3406- DF23- S1 -Z	-
	4.8		1500	304.82	17400	1.2	75	2KJ3406- DF23- R1 -Z	-
	5.3		1350	273.41	17400	1.4	75	2KJ3406- DF23- Q1 -Z	-
	5.9		1210	245.82	17400	1.5	75	2KJ3406- DF23- P1 -Z	-
	6.5		1090	222.33	17400	1.7	75	2KJ3406- DF23- N1 -Z	-
	7.1		1010	205.23	17400	1.8	75	2KJ3406- DF23- M1 -Z	-
	7.7		925	188.00	17400	2	75	2KJ3406- DF23- L1 -Z	-
0.75	<b>FD.79-FZ71ZMD6TV</b>								
	6.0		1190	250.99	14800	0.83	37	2KJ3405- CJ25- P1 -Z	P01
	6.7		1060	223.94	14800	0.94	37	2KJ3405- CJ25- N1 -Z	P01
	7.5		955	200.80	14800	1.0	37	2KJ3405- CJ25- M1 -Z	P01
	8.3		860	180.99	14800	1.2	37	2KJ3405- CJ25- L1 -Z	P01
	9.0		795	167.07	14800	1.3	37	2KJ3405- CJ25- K1 -Z	P01

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
0.75	<b>FD.79-FZ71ZMD6TV</b>								
	9.8	725	152.51	14800	1.4	37	2KJ3405- CJ25- J1	-Z	P01
	11.9	600	126.54	14800	1.7	37	2KJ3405- CJ25- H1	-Z	P01
	12.6	565	119.10	14800	1.8	37	2KJ3405- CJ25- G1	-Z	P01
	13.3	535	112.48	14800	1.9	37	2KJ3405- CJ25- F1	-Z	P01
	15.7	455	95.71	14800	2.2	37	2KJ3405- CJ25- E1	-Z	P01
	<b>FD.79-LE80ZMQ4P</b>								
	5.8	1240	250.99	13100	0.81	44	2KJ3405- DF23- P1	-Z	-
	6.5	1100	223.94	13400	0.9	44	2KJ3405- DF23- N1	-Z	-
	7.2	990	200.80	13600	1	44	2KJ3405- DF23- M1	-Z	-
	8	890	180.99	13800	1.1	44	2KJ3405- DF23- L1	-Z	-
	8.7	825	167.07	13900	1.2	44	2KJ3405- DF23- K1	-Z	-
	9.5	750	152.51	14100	1.3	44	2KJ3405- DF23- J1	-Z	-
	11	625	126.54	14300	1.6	44	2KJ3405- DF23- H1	-Z	-
	12	585	119.10	14400	1.7	44	2KJ3405- DF23- G1	-Z	-
13	555	112.48	14500	1.8	44	2KJ3405- DF23- F1	-Z	-	
15	470	95.71	14500	2.1	44	2KJ3405- DF23- E1	-Z	-	
<b>FD.69-FZ71ZMD6TV</b>									
9.7	735	154.55	11100	0.81	31	2KJ3404- CJ25- K1	-Z	P01	
11.1	645	135.37	11700	0.93	31	2KJ3404- CJ25- J1	-Z	P01	
12.0	595	124.96	12000	1.0	31	2KJ3404- CJ25- H1	-Z	P01	
13.6	525	110.63	12400	1.1	31	2KJ3404- CJ25- G1	-Z	P01	
16.3	435	92.08	12400	1.4	31	2KJ3404- CJ25- F1	-Z	P01	
17.3	410	86.67	12400	1.4	31	2KJ3404- CJ25- E1	-Z	P01	
19.3	370	77.65	12100	1.6	31	2KJ3404- CJ25- D1	-Z	P01	
<b>FD.69-LE80ZMQ4P</b>									
11	665	135.37	10700	0.9	37	2KJ3404- DF23- J1	-Z	-	
12	615	124.96	10800	0.97	37	2KJ3404- DF23- H1	-Z	-	
13	545	110.63	10900	1.1	37	2KJ3404- DF23- G1	-Z	-	
16	455	92.08	11200	1.3	37	2KJ3404- DF23- F1	-Z	-	
17	425	86.67	11200	1.4	37	2KJ3404- DF23- E1	-Z	-	
19	380	77.65	11300	1.6	37	2KJ3404- DF23- D1	-Z	-	
22	325	66.11	11400	1.8	37	2KJ3404- DF23- C1	-Z	-	
26	280	56.67	11000	2.1	37	2KJ3404- DF23- B1	-Z	-	
30	240	48.80	10600	2.5	37	2KJ3404- DF23- A1	-Z	-	
<b>FZ.69-FZ71ZMD6TV</b>									
23	305	64.67	11600	1.9	30	2KJ3304- CJ25- X1	-Z	P01	
26	280	58.79	11400	2.1	30	2KJ3304- CJ25- W1	-Z	P01	
30	235	50.00	11000	2.5	30	2KJ3304- CJ25- V1	-Z	P01	
<b>FZ.69-LE80ZMQ4P</b>									
22	315	64.67	11400	1.9	36	2KJ3304- DF23- X1	-Z	-	
25	290	58.79	11100	2.1	36	2KJ3304- DF23- W1	-Z	-	
29	245	50.00	10700	2.4	36	2KJ3304- DF23- V1	-Z	-	
<b>FD.49-FZ71ZMD6TV</b>									
12.6	565	118.71	7410	0.85	26	2KJ3403- CJ25- H1	-Z	P01	
14.3	500	105.10	7830	0.96	26	2KJ3403- CJ25- G1	-Z	P01	
17.1	415	87.48	7770	1.1	26	2KJ3403- CJ25- F1	-Z	P01	
18.2	390	82.33	7720	1.2	26	2KJ3403- CJ25- E1	-Z	P01	
20	350	73.77	7610	1.4	26	2KJ3403- CJ25- D1	-Z	P01	
<b>FD.49-LE80ZMQ4P</b>									
12	585	118.71	7270	0.82	32	2KJ3403- DF23- H1	-Z	-	
14	515	105.10	7720	0.92	32	2KJ3403- DF23- G1	-Z	-	
17	430	87.48	8180	1.1	32	2KJ3403- DF23- F1	-Z	-	
18	405	82.33	8250	1.2	32	2KJ3403- DF23- E1	-Z	-	
20	360	73.77	8380	1.3	32	2KJ3403- DF23- D1	-Z	-	
23	310	62.81	8190	1.5	32	2KJ3403- DF23- C1	-Z	-	
27	265	53.83	7970	1.8	32	2KJ3403- DF23- B1	-Z	-	
31	225	46.36	7760	2.1	32	2KJ3403- DF23- A1	-Z	-	
<b>FZ.49-FZ71ZMD6TV</b>									
24	290	61.43	7420	1.6	26	2KJ3303- CJ25- X1	-Z	P01	
27	265	55.85	7290	1.8	26	2KJ3303- CJ25- W1	-Z	P01	

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
0.75	<b>FZ.49-FZ7IZMD6TV</b>								
	32	225	47.50	7080	2.1	26	2KJ3303-	CJ25- V1 -Z	P01
	35	205	43.18	6940	2.3	26	2KJ3303-	CJ25- U1 -Z	P01
	39	183	38.53	6780	2.6	26	2KJ3303-	CJ25- T1 -Z	P01
	<b>FZ.49-LE80ZMQ4P</b>								
	24	300	61.43	8180	1.6	31	2KJ3303-	DF23- X1 -Z	-
	26	275	55.85	8030	1.7	31	2KJ3303-	DF23- W1 -Z	-
	31	235	47.50	7770	2	31	2KJ3303-	DF23- V1 -Z	-
	34	210	43.18	7640	2.3	31	2KJ3303-	DF23- U1 -Z	-
	38	190	38.53	7440	2.5	31	2KJ3303-	DF23- T1 -Z	-
	<b>FD.39-FZ7IZMD6TV</b>								
	20	350	73.93	4660	0.82	18	2KJ3402-	CJ25- E1 -Z	P01
	22	320	67.07	4760	0.91	18	2KJ3402-	CJ25- D1 -Z	P01
	24	300	63.13	4820	0.96	18	2KJ3402-	CJ25- C1 -Z	P01
	27	265	55.65	4930	1.1	18	2KJ3402-	CJ25- B1 -Z	P01
	<b>FD.39-LE80ZMQ4P</b>								
	22	330	67.07	5670	0.88	22	2KJ3402-	DF23- D1 -Z	-
	23	310	63.13	5740	0.93	22	2KJ3402-	DF23- C1 -Z	-
	26	275	55.65	5870	1.1	22	2KJ3402-	DF23- B1 -Z	-
	30	235	48.29	6020	1.2	22	2KJ3402-	DF23- A1 -Z	-
	<b>FZ.39-FZ7IZMD6TV</b>								
	29	240	50.91	5010	0.99	18	2KJ3302-	CJ25- X1 -Z	P01
	32	220	46.29	5070	1.2	18	2KJ3302-	CJ25- W1 -Z	P01
	38	189	39.60	5160	1.5	18	2KJ3302-	CJ25- V1 -Z	P01
	42	171	36.00	5220	1.5	18	2KJ3302-	CJ25- U1 -Z	P01
	47	151	31.82	5280	1.9	18	2KJ3302-	CJ25- T1 -Z	P01
	52	138	28.93	5320	2.0	18	2KJ3302-	CJ25- S1 -Z	P01
	59	120	25.34	5380	2.2	18	2KJ3302-	CJ25- R1 -Z	P01
	64	111	23.39	5410	2.3	18	2KJ3302-	CJ25- Q1 -Z	P01
	72	98	20.71	5450	2.5	18	2KJ3302-	CJ25- P1 -Z	P01
	87	82	17.24	5320	2.9	18	2KJ3302-	CJ25- N1 -Z	P01
	92	77	16.22	5240	3.0	18	2KJ3302-	CJ25- M1 -Z	P01
	103	69	14.54	5090	3.2	18	2KJ3302-	CJ25- L1 -Z	P01
	121	59	12.38	4860	3.6	18	2KJ3302-	CJ25- K1 -Z	P01
	185	38	8.10	4290	4.3	18	2KJ3302-	CJ25- G1 -Z	P01
	<b>FZ.39-LE80ZMQ4P</b>								
	25	285	57.99	5830	0.8	22	2KJ3302-	DF23- A2 -Z	-
	28	250	50.91	5970	0.95	22	2KJ3302-	DF23- X1 -Z	-
	31	225	46.29	6060	1.1	22	2KJ3302-	DF23- W1 -Z	-
	37	196	39.60	6170	1.5	22	2KJ3302-	DF23- V1 -Z	-
	40	178	36.00	6230	1.4	22	2KJ3302-	DF23- U1 -Z	-
	46	157	31.82	6310	1.8	22	2KJ3302-	DF23- T1 -Z	-
	50	143	28.93	6310	1.9	22	2KJ3302-	DF23- S1 -Z	-
	57	125	25.34	6130	2.1	22	2KJ3302-	DF23- R1 -Z	-
	62	116	23.39	6010	2.3	22	2KJ3302-	DF23- Q1 -Z	-
	70	102	20.71	5840	2.4	22	2KJ3302-	DF23- P1 -Z	-
	84	85	17.24	5580	2.8	22	2KJ3302-	DF23- N1 -Z	-
	89	80	16.22	5490	2.9	22	2KJ3302-	DF23- M1 -Z	-
	100	72	14.54	5330	3.1	22	2KJ3302-	DF23- L1 -Z	-
	117	61	12.38	5100	3.4	22	2KJ3302-	DF23- K1 -Z	-
	137	52	10.61	4890	3.8	22	2KJ3302-	DF23- J1 -Z	-
	179	40	8.10	4490	4.2	22	2KJ3302-	DF23- G1 -Z	-
	<b>FZ.29-FZ7IZMD6TV</b>								
	44	162	34.04	4570	0.92	12	2KJ3301-	CJ25- W1 -Z	P01
	48	147	30.95	4510	1.0	12	2KJ3301-	CJ25- V1 -Z	P01
	55	129	27.13	4400	1.2	12	2KJ3301-	CJ25- U1 -Z	P01
	62	115	24.22	4310	1.3	12	2KJ3301-	CJ25- T1 -Z	P01
	70	103	21.58	4210	1.5	12	2KJ3301-	CJ25- S1 -Z	P01
	75	95	19.92	4140	1.6	12	2KJ3301-	CJ25- R1 -Z	P01
	86	83	17.44	4020	1.8	12	2KJ3301-	CJ25- Q1 -Z	P01
	98	73	15.29	3900	2.1	12	2KJ3301-	CJ25- P1 -Z	P01

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles	
0.75	<b>FZ.29-FZ7IZMD6TV</b>								
	108	66	13.88	3810	2.3	12	2KJ3301- CJ25- N1 -Z	P01	
	115	62	13.06	3760	2.4	12	2KJ3301- CJ25- M1 -Z	P01	
	130	54	11.51	3640	2.6	12	2KJ3301- CJ25- L1 -Z	P01	
	150	47	9.99	3510	2.9	12	2KJ3301- CJ25- K1 -Z	P01	
	155	46	9.69	3410	3.1	12	2KJ3301- CJ25- J1 -Z	P01	
	174	41	8.63	3310	3.2	12	2KJ3301- CJ25- H1 -Z	P01	
	188	38	7.97	3240	3.2	12	2KJ3301- CJ25- G1 -Z	P01	
	215	33	6.98	3130	3.7	12	2KJ3301- CJ25- F1 -Z	P01	
	245	29	6.12	3020	3.9	12	2KJ3301- CJ25- E1 -Z	P01	
	270	26	5.55	2950	4.1	12	2KJ3301- CJ25- D1 -Z	P01	
	287	24	5.22	2900	4.3	12	2KJ3301- CJ25- C1 -Z	P01	
	326	21	4.60	2800	4.4	12	2KJ3301- CJ25- B1 -Z	P01	
	375	19	4.00	2680	4.8	12	2KJ3301- CJ25- A1 -Z	P01	
	0.75	<b>FZ.29-LE80ZMQ4P</b>							
		43	168	34.04	4770	0.89	16	2KJ3301- DF23- W1 -Z	-
		47	153	30.95	4700	0.98	16	2KJ3301- DF23- V1 -Z	-
		53	134	27.13	4600	1.1	16	2KJ3301- DF23- U1 -Z	-
		60	120	24.22	4510	1.3	16	2KJ3301- DF23- T1 -Z	-
		67	107	21.58	4410	1.4	16	2KJ3301- DF23- S1 -Z	-
		73	98	19.92	4340	1.5	16	2KJ3301- DF23- R1 -Z	-
		83	86	17.44	4220	1.7	16	2KJ3301- DF23- Q1 -Z	-
		95	76	15.29	4090	2	16	2KJ3301- DF23- P1 -Z	-
		104	69	13.88	4000	2.2	16	2KJ3301- DF23- N1 -Z	-
		111	64	13.06	3950	2.3	16	2KJ3301- DF23- M1 -Z	-
		126	57	11.51	3820	2.5	16	2KJ3301- DF23- L1 -Z	-
		145	49	9.99	3690	2.8	16	2KJ3301- DF23- K1 -Z	-
		150	48	9.69	3590	3	16	2KJ3301- DF23- J1 -Z	-
		168	43	8.63	3490	3	16	2KJ3301- DF23- H1 -Z	-
		182	39	7.97	3420	3	16	2KJ3301- DF23- G1 -Z	-
		208	34	6.98	3300	3.6	16	2KJ3301- DF23- F1 -Z	-
		237	30	6.12	3190	3.8	16	2KJ3301- DF23- E1 -Z	-
		261	27	5.55	3110	3.9	16	2KJ3301- DF23- D1 -Z	-
		278	26	5.22	3050	4.1	16	2KJ3301- DF23- C1 -Z	-
		315	23	4.60	2940	4.3	16	2KJ3301- DF23- B1 -Z	-
362		20	4.00	2820	4.6	16	2KJ3301- DF23- A1 -Z	-	
0.75		<b>FZ.29-LE80ME2P</b>							
	163	44	17.44	3570	3.4	15	2KJ3301- DB23- Q1 -Z	P00	
	186	38	15.29	3450	3.9	15	2KJ3301- DB23- P1 -Z	P00	
	205	35	13.88	3360	4.3	15	2KJ3301- DB23- N1 -Z	P00	
1.1	<b>FD.149-LE100ZLSA6P</b>								
	2.5	4160	377.00	65000	1.9	278	2KJ3410- FN23- W1 -Z	P01	
	<b>FD.129-LE100ZLSA6P</b>								
	2.3	4560	413.00	37400	1.1	191	2KJ3408- FN23- T1 -Z	P01	
	2.5	4210	381.00	37500	1.2	191	2KJ3408- FN23- S1 -Z	P01	
	2.7	3880	351.00	37500	1.2	191	2KJ3408- FN23- R1 -Z	P01	
	3.2	3310	299.31	37500	1.5	191	2KJ3408- FN23- Q1 -Z	P01	
	<b>FD.129-LE90SM4P</b>								
	3.5	3010	413.00	37500	1.6	171	2KJ3408- EK23- T1 -Z	-	
	3.8	2770	381.00	37500	1.7	171	2KJ3408- EK23- S1 -Z	-	
	4.1	2560	351.00	37500	1.9	171	2KJ3408- EK23- R1 -Z	-	
	<b>FD.109-LE100ZLSA6P</b>								
	2.8	3710	335.70	25000	0.84	137	2KJ3407- FN23- R1 -Z	P01	
	3.1	3420	309.87	25000	0.9	137	2KJ3407- FN23- Q1 -Z	P01	
	<b>FD.109-LE90SM4P</b>								
	3.5	2990	410.00	25000	1	118	2KJ3407- EK23- T1 -Z	-	
	3.9	2690	370.00	25000	1.1	118	2KJ3407- EK23- S1 -Z	-	
	4.3	2440	335.70	25000	1.3	118	2KJ3407- EK23- R1 -Z	-	
	4.6	2260	309.87	25000	1.4	118	2KJ3407- EK23- Q1 -Z	-	
	5.1	2050	281.68	25000	1.5	118	2KJ3407- EK23- P1 -Z	-	
	6	1740	238.52	25000	1.8	118	2KJ3407- EK23- N1 -Z	-	

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
1.1	<b>FD.109-LE90SM4P</b>							
	6.4	1630	224.49	25000	1.9	118	2KJ3407- ■ EK23- ■ ■ M1 -Z -	
	6.9	1510	207.31	25000	2	118	2KJ3407- ■ EK23- ■ ■ L1 -Z -	
	<b>FD.89-LE90SM4P</b>							
	4.7	2220	304.82	17400	0.83	78	2KJ3406- ■ EK23- ■ ■ R1 -Z -	
	5.3	1990	273.41	17400	0.93	78	2KJ3406- ■ EK23- ■ ■ Q1 -Z -	
	5.9	1790	245.82	17400	1	78	2KJ3406- ■ EK23- ■ ■ P1 -Z -	
	6.5	1620	222.33	17400	1.1	78	2KJ3406- ■ EK23- ■ ■ N1 -Z -	
	7	1490	205.23	17400	1.2	78	2KJ3406- ■ EK23- ■ ■ M1 -Z -	
	7.7	1370	188.00	17400	1.3	78	2KJ3406- ■ EK23- ■ ■ L1 -Z -	
	9.1	1150	157.74	17400	1.6	78	2KJ3406- ■ EK23- ■ ■ K1 -Z -	
	9.7	1080	148.46	17400	1.7	78	2KJ3406- ■ EK23- ■ ■ J1 -Z -	
	11	990	136.21	17400	1.9	78	2KJ3406- ■ EK23- ■ ■ H1 -Z -	
	12	865	118.98	17400	2.1	78	2KJ3406- ■ EK23- ■ ■ G1 -Z -	
<b>FD.79-FZ71ZME6TV</b>								
9.0	1170	167.07	14800	0.85	38	2KJ3405- ■ CV25- ■ ■ K1 -Z P01		
9.8	1060	152.51	14800	0.94	38	2KJ3405- ■ CV25- ■ ■ J1 -Z P01		
11.9	885	126.54	14800	1.1	38	2KJ3405- ■ CV25- ■ ■ H1 -Z P01		
12.6	830	119.10	14800	1.2	38	2KJ3405- ■ CV25- ■ ■ G1 -Z P01		
13.3	785	112.48	14800	1.3	38	2KJ3405- ■ CV25- ■ ■ F1 -Z P01		
15.7	670	95.71	14800	1.5	38	2KJ3405- ■ CV25- ■ ■ E1 -Z P01		
<b>FD.79-LE90SM4P</b>								
8.6	1210	167.07	13200	0.82	46	2KJ3405- ■ EK23- ■ ■ K1 -Z -		
9.4	1110	152.51	13400	0.9	46	2KJ3405- ■ EK23- ■ ■ J1 -Z -		
11	920	126.54	13700	1.1	46	2KJ3405- ■ EK23- ■ ■ H1 -Z -		
12	865	119.10	13800	1.2	46	2KJ3405- ■ EK23- ■ ■ G1 -Z -		
13	820	112.48	13900	1.2	46	2KJ3405- ■ EK23- ■ ■ F1 -Z -		
15	695	95.71	14200	1.4	46	2KJ3405- ■ EK23- ■ ■ E1 -Z -		
18	595	81.99	14400	1.7	46	2KJ3405- ■ EK23- ■ ■ D1 -Z -		
20	525	72.09	14500	1.9	46	2KJ3405- ■ EK23- ■ ■ C1 -Z -		
24	440	60.82	14500	2.3	46	2KJ3405- ■ EK23- ■ ■ B1 -Z -		
<b>FD.69-FZ71ZME6TV</b>								
16.3	640	92.08	11200	0.93	32	2KJ3404- ■ CV25- ■ ■ F1 -Z P01		
17.3	605	86.67	11100	0.99	32	2KJ3404- ■ CV25- ■ ■ E1 -Z P01		
19.3	540	77.65	11000	1.1	32	2KJ3404- ■ CV25- ■ ■ D1 -Z P01		
23	460	66.11	10800	1.3	32	2KJ3404- ■ CV25- ■ ■ C1 -Z P01		
<b>FD.69-LE90SM4P</b>								
16	670	92.08	10600	0.89	37	2KJ3404- ■ EK23- ■ ■ F1 -Z -		
17	630	86.67	10700	0.95	37	2KJ3404- ■ EK23- ■ ■ E1 -Z -		
19	565	77.65	10700	1.1	37	2KJ3404- ■ EK23- ■ ■ D1 -Z -		
22	480	66.11	10500	1.2	37	2KJ3404- ■ EK23- ■ ■ C1 -Z -		
25	410	56.67	10200	1.5	37	2KJ3404- ■ EK23- ■ ■ B1 -Z -		
30	355	48.80	9980	1.7	37	2KJ3404- ■ EK23- ■ ■ A1 -Z -		
<b>FZ.69-FZ71ZME6TV</b>								
41	250	36.36	9620	2.4	31	2KJ3304- ■ CV25- ■ ■ S1 -Z P01		
46	225	32.78	9400	2.6	31	2KJ3304- ■ CV25- ■ ■ R1 -Z P01		
50	210	30.26	9210	2.8	31	2KJ3304- ■ CV25- ■ ■ Q1 -Z P01		
<b>FZ.69-LE90SM4P</b>								
22	470	64.67	10400	1.3	37	2KJ3304- ■ EK23- ■ ■ X1 -Z -		
24	425	58.79	10300	1.4	37	2KJ3304- ■ EK23- ■ ■ W1 -Z -		
29	365	50.00	10000	1.6	37	2KJ3304- ■ EK23- ■ ■ V1 -Z -		
32	330	45.45	9850	1.8	37	2KJ3304- ■ EK23- ■ ■ U1 -Z -		
36	295	40.56	9620	2	37	2KJ3304- ■ EK23- ■ ■ T1 -Z -		
40	265	36.36	9400	2.3	37	2KJ3304- ■ EK23- ■ ■ S1 -Z -		
44	235	32.78	9210	2.5	37	2KJ3304- ■ EK23- ■ ■ R1 -Z -		
48	220	30.26	9020	2.7	37	2KJ3304- ■ EK23- ■ ■ Q1 -Z -		
<b>FD.49-FZ71ZME6TV</b>								
18.2	575	82.33	6510	0.83	27	2KJ3403- ■ CV25- ■ ■ E1 -Z P01		
20	515	73.77	6530	0.93	27	2KJ3403- ■ CV25- ■ ■ D1 -Z P01		
24	435	62.81	6540	1.1	27	2KJ3403- ■ CV25- ■ ■ C1 -Z P01		

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
1.1	<b>FD.49-LE90SM4P</b>								
	17	600	82.33	7170	0.8	32	2KJ3403- EK23- E1	-Z	-
	20	535	73.77	7310	0.89	32	2KJ3403- EK23- D1	-Z	-
	23	455	62.81	7270	1	32	2KJ3403- EK23- C1	-Z	-
	27	390	53.83	7180	1.2	32	2KJ3403- EK23- B1	-Z	-
	31	335	46.36	7060	1.4	32	2KJ3403- EK23- A1	-Z	-
	<b>FZ.49-FZ71ZME6TV</b>								
	43	240	34.55	6120	2.0	27	2KJ3303- CV25- S1	-Z	P01
	48	215	31.14	6020	2.2	27	2KJ3303- CV25- R1	-Z	P01
	52	200	28.74	5920	2.4	27	2KJ3303- CV25- Q1	-Z	P01
	57	183	26.24	5820	2.6	27	2KJ3303- CV25- P1	-Z	P01
	69	152	21.77	5600	3.1	27	2KJ3303- CV25- N1	-Z	P01
	<b>FZ.49-LE90SM4P</b>								
	23	445	61.43	7260	1.1	32	2KJ3303- EK23- X1	-Z	-
	26	405	55.85	7200	1.2	32	2KJ3303- EK23- W1	-Z	-
	30	345	47.50	7070	1.4	32	2KJ3303- EK23- V1	-Z	-
	33	315	43.18	6980	1.5	32	2KJ3303- EK23- U1	-Z	-
	37	280	38.53	6870	1.7	32	2KJ3303- EK23- T1	-Z	-
	42	250	34.55	6760	1.9	32	2KJ3303- EK23- S1	-Z	-
46	225	31.14	6630	2.1	32	2KJ3303- EK23- R1	-Z	-	
50	210	28.74	6520	2.3	32	2KJ3303- EK23- Q1	-Z	-	
55	191	26.24	6410	2.5	32	2KJ3303- EK23- P1	-Z	-	
66	159	21.77	6150	3	32	2KJ3303- EK23- N1	-Z	-	
<b>FD.39-FZ71ZME6TV</b>									
31	335	48.29	4710	0.86	19	2KJ3402- CV25- A1	-Z	P01	
<b>FD.39-LE90SM4P</b>									
30	350	48.29	5590	0.82	25	2KJ3402- EK23- A1	-Z	-	
<b>FZ.39-FZ71ZME6TV</b>									
52	200	28.93	5130	1.4	19	2KJ3302- CV25- S1	-Z	P01	
59	177	25.34	5200	1.5	19	2KJ3302- CV25- R1	-Z	P01	
64	163	23.39	5240	1.6	19	2KJ3302- CV25- Q1	-Z	P01	
72	145	20.71	5240	1.7	19	2KJ3302- CV25- P1	-Z	P01	
87	120	17.24	5050	1.9	19	2KJ3302- CV25- N1	-Z	P01	
92	113	16.22	4980	2.0	19	2KJ3302- CV25- M1	-Z	P01	
103	101	14.54	4850	2.2	19	2KJ3302- CV25- L1	-Z	P01	
121	86	12.38	4670	2.4	19	2KJ3302- CV25- K1	-Z	P01	
185	56	8.10	4140	2.9	19	2KJ3302- CV25- G1	-Z	P01	
223	47	6.74	3940	3.2	19	2KJ3302- CV25- F1	-Z	P01	
236	44	6.35	3880	3.4	19	2KJ3302- CV25- E1	-Z	P01	
264	39	5.69	3770	3.5	19	2KJ3302- CV25- D1	-Z	P01	
310	33	4.84	3600	3.8	19	2KJ3302- CV25- C1	-Z	P01	
<b>FZ.39-LE90SM4P</b>									
36	285	39.60	5830	1	24	2KJ3302- EK23- V1	-Z	-	
40	260	36.00	5930	0.97	24	2KJ3302- EK23- U1	-Z	-	
45	230	31.82	5920	1.2	24	2KJ3302- EK23- T1	-Z	-	
50	210	28.93	5830	1.3	24	2KJ3302- EK23- S1	-Z	-	
57	185	25.34	5700	1.4	24	2KJ3302- EK23- R1	-Z	-	
62	171	23.39	5610	1.5	24	2KJ3302- EK23- Q1	-Z	-	
70	151	20.71	5490	1.7	24	2KJ3302- EK23- P1	-Z	-	
84	126	17.24	5280	1.9	24	2KJ3302- EK23- N1	-Z	-	
89	118	16.22	5220	1.9	24	2KJ3302- EK23- M1	-Z	-	
99	106	14.54	5090	2.1	24	2KJ3302- EK23- L1	-Z	-	
116	90	12.38	4900	2.3	24	2KJ3302- EK23- K1	-Z	-	
136	77	10.61	4720	2.6	24	2KJ3302- EK23- J1	-Z	-	
158	67	9.13	4540	2.8	24	2KJ3302- EK23- H1	-Z	-	
178	59	8.10	4350	2.8	24	2KJ3302- EK23- G1	-Z	-	
214	49	6.74	4140	3.1	24	2KJ3302- EK23- F1	-Z	-	
227	46	6.35	4080	3.2	24	2KJ3302- EK23- E1	-Z	-	
253	42	5.69	3950	3.4	24	2KJ3302- EK23- D1	-Z	-	
298	35	4.84	3780	3.6	24	2KJ3302- EK23- C1	-Z	-	
347	30	4.15	3620	3.9	24	2KJ3302- EK23- B1	-Z	-	

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
1.1	<b>FZ.39-LE90SM4P</b>								
	403	26	3.57	3460	4.1	24	2KJ3302-	EK23- A1 -Z -	
	<b>FZ.39-LE80ZMJ2P</b>								
	167	63	17.24	4470	3.7	22	2KJ3302-	DM23- N1 -Z P00	
	178	59	16.22	4400	3.9	22	2KJ3302-	DM23- M1 -Z P00	
	198	53	14.54	4270	4.2	22	2KJ3302-	DM23- L1 -Z P00	
	<b>FZ.29-FZ7IZME6TV</b>								
	62	169	24.22	3890	0.88	12	2KJ3301-	CV25- T1 -Z P01	
	70	151	21.58	3840	0.99	12	2KJ3301-	CV25- S1 -Z P01	
	75	139	19.92	3800	1.1	12	2KJ3301-	CV25- R1 -Z P01	
86	122	17.44	3720	1.2	12	2KJ3301-	CV25- Q1 -Z P01		
98	107	15.29	3630	1.4	12	2KJ3301-	CV25- P1 -Z P01		
108	97	13.88	3570	1.5	12	2KJ3301-	CV25- N1 -Z P01		
115	91	13.06	3530	1.6	12	2KJ3301-	CV25- M1 -Z P01		
130	80	11.51	3440	1.8	12	2KJ3301-	CV25- L1 -Z P01		
150	69	9.99	3340	1.9	12	2KJ3301-	CV25- K1 -Z P01		
155	67	9.69	3220	2.1	12	2KJ3301-	CV25- J1 -Z P01		
174	60	8.63	3140	2.2	12	2KJ3301-	CV25- H1 -Z P01		
188	55	7.97	3090	2.1	12	2KJ3301-	CV25- G1 -Z P01		
215	48	6.98	2990	2.5	12	2KJ3301-	CV25- F1 -Z P01		
245	42	6.12	2900	2.7	12	2KJ3301-	CV25- E1 -Z P01		
270	38	5.55	2830	2.8	12	2KJ3301-	CV25- D1 -Z P01		
287	36	5.22	2790	2.9	12	2KJ3301-	CV25- C1 -Z P01		
326	32	4.60	2700	3.0	12	2KJ3301-	CV25- B1 -Z P01		
375	28	4.00	2600	3.2	12	2KJ3301-	CV25- A1 -Z P01		
<b>FZ.29-LE90SM4P</b>									
59	177	24.22	4050	0.85	18	2KJ3301-	EK23- T1 -Z -		
67	157	21.58	4000	0.95	18	2KJ3301-	EK23- S1 -Z -		
72	145	19.92	3960	1	18	2KJ3301-	EK23- R1 -Z -		
83	127	17.44	3890	1.2	18	2KJ3301-	EK23- Q1 -Z -		
94	112	15.29	3800	1.3	18	2KJ3301-	EK23- P1 -Z -		
104	101	13.88	3740	1.5	18	2KJ3301-	EK23- N1 -Z -		
110	95	13.06	3700	1.6	18	2KJ3301-	EK23- M1 -Z -		
125	84	11.51	3610	1.7	18	2KJ3301-	EK23- L1 -Z -		
144	73	9.99	3500	1.9	18	2KJ3301-	EK23- K1 -Z -		
149	71	9.69	3380	2	18	2KJ3301-	EK23- J1 -Z -		
167	63	8.63	3300	2.1	18	2KJ3301-	EK23- H1 -Z -		
181	58	7.97	3250	2.1	18	2KJ3301-	EK23- G1 -Z -		
206	51	6.98	3150	2.4	18	2KJ3301-	EK23- F1 -Z -		
235	45	6.12	3050	2.6	18	2KJ3301-	EK23- E1 -Z -		
259	40	5.55	2990	2.7	18	2KJ3301-	EK23- D1 -Z -		
276	38	5.22	2940	2.8	18	2KJ3301-	EK23- C1 -Z -		
313	34	4.60	2840	2.9	18	2KJ3301-	EK23- B1 -Z -		
360	29	4.00	2740	3.1	18	2KJ3301-	EK23- A1 -Z -		
<b>FZ.29-LE80ZMJ2P</b>									
165	64	17.44	3390	2.4	16	2KJ3301-	DM23- Q1 -Z P00		
189	56	15.29	3290	2.7	16	2KJ3301-	DM23- P1 -Z P00		
208	50	13.88	3220	3	16	2KJ3301-	DM23- N1 -Z P00		
221	48	13.06	3160	3.2	16	2KJ3301-	DM23- M1 -Z P00		
251	42	11.51	3060	3.4	16	2KJ3301-	DM23- L1 -Z P00		
289	36	9.99	2960	3.7	16	2KJ3301-	DM23- K1 -Z P00		
298	35	9.69	2880	4.1	16	2KJ3301-	DM23- J1 -Z P00		
334	31	8.63	2800	4.1	16	2KJ3301-	DM23- H1 -Z P00		
362	29	7.97	2740	4.1	16	2KJ3301-	DM23- G1 -Z P00		
413	25	6.98	2650	4.8	16	2KJ3301-	DM23- F1 -Z P00		
471	22	6.12	2550	5.1	16	2KJ3301-	DM23- E1 -Z P00		
520	20	5.55	2480	5.3	16	2KJ3301-	DM23- D1 -Z P00		
553	19	5.22	2440	5.6	16	2KJ3301-	DM23- C1 -Z P00		
627	17	4.60	2350	5.8	16	2KJ3301-	DM23- B1 -Z P00		
721	15	4.00	2250	6.2	16	2KJ3301-	DM23- A1 -Z P00		

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
1.5	<b>FD.149-LE112ZMKA6P</b>							
	2.6	5530	377.00	65000	1.4	280	2KJ3410- GH23- W1 -Z	P01
	3	4740	323.04	65000	1.7	280	2KJ3410- GH23- V1 -Z	P01
	3.2	4460	304.03	65000	1.8	280	2KJ3410- GH23- U1 -Z	P01
	3.4	4180	285.00	65000	1.9	280	2KJ3410- GH23- T1 -Z	P01
	<b>FD.129-FZ90LBA6TV</b>							
	3.6	3940	413.00	37500	1.2	160	2KJ3408- ES25- T1 -Z	P01
	3.9	3630	381.00	37500	1.3	160	2KJ3408- ES25- S1 -Z	P01
	4.3	3350	351.00	37500	1.4	160	2KJ3408- ES25- R1 -Z	P01
	5.0	2850	299.31	37500	1.7	160	2KJ3408- ES25- Q1 -Z	P01
	5.3	2690	281.70	37500	1.8	160	2KJ3408- ES25- P1 -Z	P01
	5.7	2490	261.42	37500	1.9	160	2KJ3408- ES25- N1 -Z	P01
	<b>FD.129-LE112ZMKA6P</b>							
	2.4	6060	413.00	36000	0.8	192	2KJ3408- GH23- T1 -Z	P01
	2.6	5590	381.00	36400	0.87	192	2KJ3408- GH23- S1 -Z	P01
2.8	5150	351.00	36900	0.94	192	2KJ3408- GH23- R1 -Z	P01	
3.3	4390	299.31	37500	1.1	192	2KJ3408- GH23- Q1 -Z	P01	
<b>FD.129-LE90ZLR4P</b>								
3.5	4090	413.00	37500	1.2	174	2KJ3408- EM23- T1 -Z	-	
3.8	3770	381.00	37500	1.3	174	2KJ3408- EM23- S1 -Z	-	
4.1	3480	351.00	37500	1.4	174	2KJ3408- EM23- R1 -Z	-	
4.8	2960	299.31	37500	1.6	174	2KJ3408- EM23- Q1 -Z	-	
5.1	2790	281.70	37500	1.7	174	2KJ3408- EM23- P1 -Z	-	
5.5	2590	261.42	37500	1.9	174	2KJ3408- EM23- N1 -Z	-	
6.3	2290	231.12	37500	2.1	174	2KJ3408- EM23- M1 -Z	-	
<b>FD.109-FZ90LBA6TV</b>								
4.1	3530	370.00	25000	0.88	109	2KJ3407- ES25- S1 -Z	P01	
4.5	3200	335.70	25000	0.97	109	2KJ3407- ES25- R1 -Z	P01	
4.8	2950	309.87	25000	1.0	109	2KJ3407- ES25- Q1 -Z	P01	
5.3	2690	281.68	25000	1.2	109	2KJ3407- ES25- P1 -Z	P01	
6.3	2270	238.52	25000	1.4	109	2KJ3407- ES25- N1 -Z	P01	
6.7	2140	224.49	25000	1.4	109	2KJ3407- ES25- M1 -Z	P01	
7.2	1970	207.31	25000	1.6	109	2KJ3407- ES25- L1 -Z	P01	
8.1	1760	184.46	25000	1.8	109	2KJ3407- ES25- K1 -Z	P01	
9.2	1560	163.83	25000	2.0	109	2KJ3407- ES25- J1 -Z	P01	
10.2	1400	146.65	25000	2.2	109	2KJ3407- ES25- H1 -Z	P01	
<b>FD.109-LE90ZLR4P</b>								
3.9	3660	370.00	25000	0.85	121	2KJ3407- EM23- S1 -Z	-	
4.3	3320	335.70	25000	0.93	121	2KJ3407- EM23- R1 -Z	-	
4.7	3070	309.87	25000	1	121	2KJ3407- EM23- Q1 -Z	-	
5.1	2790	281.68	25000	1.1	121	2KJ3407- EM23- P1 -Z	-	
6.1	2360	238.52	25000	1.3	121	2KJ3407- EM23- N1 -Z	-	
6.4	2220	224.49	25000	1.4	121	2KJ3407- EM23- M1 -Z	-	
7	2050	207.31	25000	1.5	121	2KJ3407- EM23- L1 -Z	-	
7.8	1820	184.46	25000	1.7	121	2KJ3407- EM23- K1 -Z	-	
8.8	1620	163.83	25000	1.9	121	2KJ3407- EM23- J1 -Z	-	
9.9	1450	146.65	25000	2.1	121	2KJ3407- EM23- H1 -Z	-	
<b>FD.89-FZ90LBA6TV</b>								
6.7	2120	222.33	17700	0.87	71	2KJ3406- ES25- N1 -Z	P01	
7.3	1950	205.23	17700	0.94	71	2KJ3406- ES25- M1 -Z	P01	
8.0	1790	188.00	17700	1.0	71	2KJ3406- ES25- L1 -Z	P01	
9.5	1500	157.74	17700	1.2	71	2KJ3406- ES25- K1 -Z	P01	
10.1	1410	148.46	17700	1.3	71	2KJ3406- ES25- J1 -Z	P01	
11.0	1300	136.21	17700	1.4	71	2KJ3406- ES25- H1 -Z	P01	
12.6	1130	118.98	17700	1.6	71	2KJ3406- ES25- G1 -Z	P01	
14.1	1010	106.52	17700	1.8	71	2KJ3406- ES25- F1 -Z	P01	
16.1	885	93.14	17700	2.1	71	2KJ3406- ES25- E1 -Z	P01	
<b>FD.89-LE90ZLR4P</b>								
6.5	2200	222.33	17400	0.84	81	2KJ3406- EM23- N1 -Z	-	
7	2030	205.23	17400	0.91	81	2KJ3406- EM23- M1 -Z	-	
7.7	1860	188.00	17400	0.99	81	2KJ3406- EM23- L1 -Z	-	

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
1.5	<b>FD.89-LE90ZLR4P</b>							
	9.2	1560	157.74	17400	1.2	81	2KJ3406- EM23- K1 -Z -	
	9.7	1470	148.46	17400	1.3	81	2KJ3406- EM23- J1 -Z -	
	11	1350	136.21	17400	1.4	81	2KJ3406- EM23- H1 -Z -	
	12	1180	118.98	17400	1.6	81	2KJ3406- EM23- G1 -Z -	
	14	1050	106.52	17400	1.8	81	2KJ3406- EM23- F1 -Z -	
	16	920	93.14	17400	2	81	2KJ3406- EM23- E1 -Z -	
	18	790	79.95	17400	2.3	81	2KJ3406- EM23- D1 -Z -	
	<b>FD.79-FZ90LBA6TV</b>							
	11.9	1200	126.54	14800	0.83	41	2KJ3405- ES25- H1 -Z P01	
12.6	1130	119.10	14800	0.88	41	2KJ3405- ES25- G1 -Z P01		
13.3	1070	112.48	14800	0.93	41	2KJ3405- ES25- F1 -Z P01		
15.7	910	95.71	14800	1.1	41	2KJ3405- ES25- E1 -Z P01		
18.3	780	81.99	14800	1.3	41	2KJ3405- ES25- D1 -Z P01		
21	685	72.09	14800	1.5	41	2KJ3405- ES25- C1 -Z P01		
25	580	60.82	14800	1.7	41	2KJ3405- ES25- B1 -Z P01		
<b>FD.79-LE90ZLR4P</b>								
11	1250	126.54	13100	0.8	49	2KJ3405- EM23- H1 -Z -		
12	1180	119.10	13200	0.85	49	2KJ3405- EM23- G1 -Z -		
13	1110	112.48	13400	0.9	49	2KJ3405- EM23- F1 -Z -		
15	945	95.71	13700	1.1	49	2KJ3405- EM23- E1 -Z -		
18	810	81.99	13900	1.2	49	2KJ3405- EM23- D1 -Z -		
20	715	72.09	14100	1.4	49	2KJ3405- EM23- C1 -Z -		
24	600	60.82	14400	1.7	49	2KJ3405- EM23- B1 -Z -		
27	525	53.01	14500	1.9	49	2KJ3405- EM23- A1 -Z -		
<b>FZ.79-FZ90LBA6TV</b>								
28	510	53.55	14800	2.0	40	2KJ3305- ES25- X1 -Z P01		
31	455	48.03	14800	2.2	40	2KJ3305- ES25- W1 -Z P01		
35	410	43.18	14800	2.4	40	2KJ3305- ES25- V1 -Z P01		
<b>FZ.79-LE90ZLR4P</b>								
27	530	53.55	14500	1.9	48	2KJ3305- EM23- X1 -Z -		
30	475	48.03	14500	2.1	48	2KJ3305- EM23- W1 -Z -		
33	425	43.18	14500	2.3	48	2KJ3305- EM23- V1 -Z -		
37	385	39.06	14500	2.6	48	2KJ3305- EM23- U1 -Z -		
<b>FD.69-FZ90LBA6TV</b>								
19.3	740	77.65	9740	0.81	35	2KJ3404- ES25- D1 -Z P01		
<b>FD.69-LE90ZLR4P</b>								
22	655	66.11	9410	0.92	40	2KJ3404- EM23- C1 -Z -		
25	560	56.67	9320	1.1	40	2KJ3404- EM23- B1 -Z -		
30	480	48.80	9200	1.2	40	2KJ3404- EM23- A1 -Z -		
<b>FZ.69-FZ90LBA6TV</b>								
23	615	64.67	9680	0.97	34	2KJ3304- ES25- X1 -Z P01		
26	560	58.79	9600	1.1	34	2KJ3304- ES25- W1 -Z P01		
30	475	50.00	9450	1.3	34	2KJ3304- ES25- V1 -Z P01		
33	430	45.45	9350	1.4	34	2KJ3304- ES25- U1 -Z P01		
37	385	40.56	9180	1.5	34	2KJ3304- ES25- T1 -Z P01		
41	345	36.36	9020	1.7	34	2KJ3304- ES25- S1 -Z P01		
46	310	32.78	8860	1.9	34	2KJ3304- ES25- R1 -Z P01		
50	285	30.26	8730	2.1	34	2KJ3304- ES25- Q1 -Z P01		
54	260	27.62	8580	2.3	34	2KJ3304- ES25- P1 -Z P01		
65	215	22.92	8250	2.7	34	2KJ3304- ES25- N1 -Z P01		
70	205	21.57	8120	2.9	34	2KJ3304- ES25- M1 -Z P01		
74	194	20.37	8010	3.1	34	2KJ3304- ES25- L1 -Z P01		
<b>FZ.69-LE90ZLR4P</b>								
22	640	64.67	9410	0.94	40	2KJ3304- EM23- X1 -Z -		
25	580	58.79	9360	1	40	2KJ3304- EM23- W1 -Z -		
29	495	50.00	9200	1.2	40	2KJ3304- EM23- V1 -Z -		
32	450	45.45	9100	1.3	40	2KJ3304- EM23- U1 -Z -		
36	400	40.56	8960	1.5	40	2KJ3304- EM23- T1 -Z -		
40	360	36.36	8800	1.7	40	2KJ3304- EM23- S1 -Z -		
44	325	32.78	8640	1.8	40	2KJ3304- EM23- R1 -Z -		

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
1.5	<b>FZ.69-LE90ZLR4P</b>								
	48	300	30.26	8520	2	40	2KJ3304- ■ EM23- ■ ■ Q1	-Z -	
	52	270	27.62	8390	2.2	40	2KJ3304- ■ EM23- ■ ■ P1	-Z -	
	63	225	22.92	8060	2.6	40	2KJ3304- ■ EM23- ■ ■ N1	-Z -	
	67	210	21.57	7970	2.8	40	2KJ3304- ■ EM23- ■ ■ M1	-Z -	
	71	200	20.37	7850	3	40	2KJ3304- ■ EM23- ■ ■ L1	-Z -	
	<b>FD.49-LE90ZLR4P</b>								
	27	530	53.83	6250	0.9	35	2KJ3403- ■ EM23- ■ ■ B1	-Z -	
	31	460	46.36	6240	1	35	2KJ3403- ■ EM23- ■ ■ A1	-Z -	
	<b>FZ.49-FZ90LBA6TV</b>								
	24	585	61.43	5490	0.82	30	2KJ3303- ■ ES25- ■ ■ X1	-Z P01	
	27	530	55.85	5560	0.90	30	2KJ3303- ■ ES25- ■ ■ W1	-Z P01	
	32	450	47.50	5610	1.1	30	2KJ3303- ■ ES25- ■ ■ V1	-Z P01	
	35	410	43.18	5600	1.2	30	2KJ3303- ■ ES25- ■ ■ U1	-Z P01	
	39	365	38.53	5590	1.3	30	2KJ3303- ■ ES25- ■ ■ T1	-Z P01	
	43	325	34.55	5560	1.5	30	2KJ3303- ■ ES25- ■ ■ S1	-Z P01	
	48	295	31.14	5500	1.6	30	2KJ3303- ■ ES25- ■ ■ R1	-Z P01	
	52	270	28.74	5470	1.7	30	2KJ3303- ■ ES25- ■ ■ Q1	-Z P01	
	57	250	26.24	5380	1.9	30	2KJ3303- ■ ES25- ■ ■ P1	-Z P01	
	69	205	21.77	5250	2.3	30	2KJ3303- ■ ES25- ■ ■ N1	-Z P01	
	73	195	20.49	5180	2.5	30	2KJ3303- ■ ES25- ■ ■ M1	-Z P01	
	78	184	19.35	5130	2.6	30	2KJ3303- ■ ES25- ■ ■ L1	-Z P01	
	91	157	16.47	4980	3.1	30	2KJ3303- ■ ES25- ■ ■ K1	-Z P01	
	106	134	14.11	4830	3.6	30	2KJ3303- ■ ES25- ■ ■ J1	-Z P01	
	<b>FZ.49-LE90ZLR4P</b>								
26	550	55.85	6240	0.87	35	2KJ3303- ■ EM23- ■ ■ W1	-Z -		
30	470	47.50	6250	1	35	2KJ3303- ■ EM23- ■ ■ V1	-Z -		
33	425	43.18	6250	1.1	35	2KJ3303- ■ EM23- ■ ■ U1	-Z -		
38	380	38.53	6210	1.3	35	2KJ3303- ■ EM23- ■ ■ T1	-Z -		
42	340	34.55	6160	1.4	35	2KJ3303- ■ EM23- ■ ■ S1	-Z -		
46	305	31.14	6100	1.6	35	2KJ3303- ■ EM23- ■ ■ R1	-Z -		
50	285	28.74	6020	1.7	35	2KJ3303- ■ EM23- ■ ■ Q1	-Z -		
55	260	26.24	5950	1.8	35	2KJ3303- ■ EM23- ■ ■ P1	-Z -		
66	215	21.77	5780	2.2	35	2KJ3303- ■ EM23- ■ ■ N1	-Z -		
71	200	20.49	5730	2.4	35	2KJ3303- ■ EM23- ■ ■ M1	-Z -		
75	192	19.35	5650	2.5	35	2KJ3303- ■ EM23- ■ ■ L1	-Z -		
88	163	16.47	5480	2.9	35	2KJ3303- ■ EM23- ■ ■ K1	-Z -		
102	140	14.11	5300	3.4	35	2KJ3303- ■ EM23- ■ ■ J1	-Z -		
<b>FZ.39-FZ90LBA6TV</b>									
47	300	31.82	4820	0.94	22	2KJ3302- ■ ES25- ■ ■ T1	-Z P01		
52	275	28.93	4900	1.0	22	2KJ3302- ■ ES25- ■ ■ S1	-Z P01		
59	240	25.34	4990	1.1	22	2KJ3302- ■ ES25- ■ ■ R1	-Z P01		
64	220	23.39	4960	1.2	22	2KJ3302- ■ ES25- ■ ■ Q1	-Z P01		
72	197	20.71	4870	1.3	22	2KJ3302- ■ ES25- ■ ■ P1	-Z P01		
87	164	17.24	4730	1.4	22	2KJ3302- ■ ES25- ■ ■ N1	-Z P01		
92	154	16.22	4680	1.5	22	2KJ3302- ■ ES25- ■ ■ M1	-Z P01		
103	138	14.54	4590	1.6	22	2KJ3302- ■ ES25- ■ ■ L1	-Z P01		
121	118	12.38	4440	1.8	22	2KJ3302- ■ ES25- ■ ■ K1	-Z P01		
141	101	10.61	4300	2.0	22	2KJ3302- ■ ES25- ■ ■ J1	-Z P01		
164	87	9.13	4160	2.2	22	2KJ3302- ■ ES25- ■ ■ H1	-Z P01		
185	77	8.10	3970	2.2	22	2KJ3302- ■ ES25- ■ ■ G1	-Z P01		
223	64	6.74	3810	2.4	22	2KJ3302- ■ ES25- ■ ■ F1	-Z P01		
236	60	6.35	3750	2.5	22	2KJ3302- ■ ES25- ■ ■ E1	-Z P01		
264	54	5.69	3650	2.6	22	2KJ3302- ■ ES25- ■ ■ D1	-Z P01		
310	46	4.84	3500	2.8	22	2KJ3302- ■ ES25- ■ ■ C1	-Z P01		
361	39	4.15	3360	3.0	22	2KJ3302- ■ ES25- ■ ■ B1	-Z P01		
420	34	3.57	3220	3.2	22	2KJ3302- ■ ES25- ■ ■ A1	-Z P01		
<b>FZ.39-LE90ZLR4P</b>									
45	315	31.82	5280	0.9	27	2KJ3302- ■ EM23- ■ ■ T1	-Z -		
50	285	28.93	5260	0.96	27	2KJ3302- ■ EM23- ■ ■ S1	-Z -		
57	250	25.34	5200	1.1	27	2KJ3302- ■ EM23- ■ ■ R1	-Z -		

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles	
1.5	<b>FZ.39-LE90ZLR4P</b>								
	62	230	23.39	5170	1.1	27	2KJ3302- EM23- Q1 -Z -		
	70	205	20.71	5080	1.2	27	2KJ3302- EM23- P1 -Z -		
	84	171	17.24	4940	1.4	27	2KJ3302- EM23- N1 -Z -		
	89	161	16.22	4890	1.4	27	2KJ3302- EM23- M1 -Z -		
	99	144	14.54	4800	1.5	27	2KJ3302- EM23- L1 -Z -		
	117	123	12.38	4650	1.7	27	2KJ3302- EM23- K1 -Z -		
	136	105	10.61	4500	1.9	27	2KJ3302- EM23- J1 -Z -		
	158	90	9.13	4360	2.1	27	2KJ3302- EM23- H1 -Z -		
	178	80	8.10	4160	2.1	27	2KJ3302- EM23- G1 -Z -		
	214	67	6.74	3990	2.3	27	2KJ3302- EM23- F1 -Z -		
	228	63	6.35	3930	2.4	27	2KJ3302- EM23- E1 -Z -		
	254	56	5.69	3830	2.5	27	2KJ3302- EM23- D1 -Z -		
	299	48	4.84	3670	2.7	27	2KJ3302- EM23- C1 -Z -		
	348	41	4.15	3520	2.9	27	2KJ3302- EM23- B1 -Z -		
	405	35	3.57	3390	3.1	27	2KJ3302- EM23- A1 -Z -		
		<b>FZ.39-LE90SM2P</b>							
		169	85	17.24	4290	2.8	24	2KJ3302- EK23- N1 -Z P00	
		179	80	16.22	4230	2.9	24	2KJ3302- EK23- M1 -Z P00	
		200	72	14.54	4110	3.1	24	2KJ3302- EK23- L1 -Z P00	
		235	61	12.38	3950	3.4	24	2KJ3302- EK23- K1 -Z P00	
		274	52	10.61	3800	3.8	24	2KJ3302- EK23- J1 -Z P00	
		319	45	9.13	3650	4.2	24	2KJ3302- EK23- H1 -Z P00	
		359	40	8.10	3490	4.2	24	2KJ3302- EK23- G1 -Z P00	
		432	33	6.74	3320	4.6	24	2KJ3302- EK23- F1 -Z P00	
		458	31	6.35	3270	4.8	24	2KJ3302- EK23- E1 -Z P00	
		511	28	5.69	3170	5	24	2KJ3302- EK23- D1 -Z P00	
		601	24	4.84	3020	5.4	24	2KJ3302- EK23- C1 -Z P00	
		701	20	4.15	2890	5.8	24	2KJ3302- EK23- B1 -Z P00	
		815	18	3.57	2760	6.1	24	2KJ3302- EK23- A1 -Z P00	
			<b>FZ.29-FZ90LBA6TV</b>						
	86		166	17.44	3380	0.90	16	2KJ3301- ES25- Q1 -Z P01	
	98		146	15.29	3330	1.0	16	2KJ3301- ES25- P1 -Z P01	
	108		132	13.88	3300	1.1	16	2KJ3301- ES25- N1 -Z P01	
	115		124	13.06	3270	1.2	16	2KJ3301- ES25- M1 -Z P01	
	130		109	11.51	3220	1.3	16	2KJ3301- ES25- L1 -Z P01	
150	95		9.99	3140	1.4	16	2KJ3301- ES25- K1 -Z P01		
155	92		9.69	2980	1.5	16	2KJ3301- ES25- J1 -Z P01		
174	82		8.63	2930	1.6	16	2KJ3301- ES25- H1 -Z P01		
188	76		7.97	2890	1.6	16	2KJ3301- ES25- G1 -Z P01		
215	66		6.98	2830	1.8	16	2KJ3301- ES25- F1 -Z P01		
245	58		6.12	2750	2.0	16	2KJ3301- ES25- E1 -Z P01		
270	53		5.55	2700	2.0	16	2KJ3301- ES25- D1 -Z P01		
287	49		5.22	2670	2.1	16	2KJ3301- ES25- C1 -Z P01		
326	43		4.60	2600	2.2	16	2KJ3301- ES25- B1 -Z P01		
375	38	4.00	2500	2.4	16	2KJ3301- ES25- A1 -Z P01			
	<b>FZ.29-LE90ZLR4P</b>								
	83	173	17.44	3500	0.87	21	2KJ3301- EM23- Q1 -Z -		
	95	152	15.29	3460	0.99	21	2KJ3301- EM23- P1 -Z -		
	104	138	13.88	3430	1.1	21	2KJ3301- EM23- N1 -Z -		
	111	129	13.06	3410	1.2	21	2KJ3301- EM23- M1 -Z -		
	126	114	11.51	3350	1.3	21	2KJ3301- EM23- L1 -Z -		
	145	99	9.99	3280	1.4	21	2KJ3301- EM23- K1 -Z -		
	149	96	9.69	3130	1.5	21	2KJ3301- EM23- J1 -Z -		
	167	86	8.63	3070	1.5	21	2KJ3301- EM23- H1 -Z -		
	181	79	7.97	3040	1.5	21	2KJ3301- EM23- G1 -Z -		
	207	69	6.98	2970	1.8	21	2KJ3301- EM23- F1 -Z -		
	236	61	6.12	2890	1.9	21	2KJ3301- EM23- E1 -Z -		
	260	55	5.55	2840	2	21	2KJ3301- EM23- D1 -Z -		
	277	52	5.22	2800	2	21	2KJ3301- EM23- C1 -Z -		
	314	46	4.60	2720	2.1	21	2KJ3301- EM23- B1 -Z -		

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
1.5	<b>FZ.29-LE90ZLR4P</b>								
	361	40	4.00	2630	2.3	21	2KJ3301- ■ EM23- ■ ■ A1 -Z -		
	<b>FZ.29-LE90SM2P</b>								
	167	86	17.44	3200	1.7	18	2KJ3301- ■ EK23- ■ ■ Q1 -Z P00		
	190	75	15.29	3120	2	18	2KJ3301- ■ EK23- ■ ■ P1 -Z P00		
	210	68	13.88	3060	2.2	18	2KJ3301- ■ EK23- ■ ■ N1 -Z P00		
	223	64	13.06	3020	2.3	18	2KJ3301- ■ EK23- ■ ■ M1 -Z P00		
	253	57	11.51	2930	2.5	18	2KJ3301- ■ EK23- ■ ■ L1 -Z P00		
	291	49	9.99	2840	2.8	18	2KJ3301- ■ EK23- ■ ■ K1 -Z P00		
	300	48	9.69	2750	3	18	2KJ3301- ■ EK23- ■ ■ J1 -Z P00		
	337	42	8.63	2690	3.1	18	2KJ3301- ■ EK23- ■ ■ H1 -Z P00		
	365	39	7.97	2630	3.1	18	2KJ3301- ■ EK23- ■ ■ G1 -Z P00		
	417	34	6.98	2550	3.6	18	2KJ3301- ■ EK23- ■ ■ F1 -Z P00		
	475	30	6.12	2470	3.8	18	2KJ3301- ■ EK23- ■ ■ E1 -Z P00		
	524	27	5.55	2410	4	18	2KJ3301- ■ EK23- ■ ■ D1 -Z P00		
	557	26	5.22	2360	4.1	18	2KJ3301- ■ EK23- ■ ■ C1 -Z P00		
	633	23	4.60	2280	4.3	18	2KJ3301- ■ EK23- ■ ■ B1 -Z P00		
728	20	4.00	2200	4.6	18	2KJ3301- ■ EK23- ■ ■ A1 -Z P00			
2.2	<b>FD.169-LE132SQA6P</b>								
	2.6	7930	368.00	73500	1.7	455	2KJ3411- ■ HG23- ■ ■ V1 -Z P01		
	2.8	7390	343.01	73500	1.8	455	2KJ3411- ■ HG23- ■ ■ U1 -Z P01		
	<b>FD.149-LE132SQA6P</b>								
	2.6	8120	377.00	65000	0.98	308	2KJ3410- ■ HG23- ■ ■ W1 -Z P01		
	3	6960	323.04	65000	1.1	308	2KJ3410- ■ HG23- ■ ■ V1 -Z P01		
	3.2	6550	304.03	65000	1.2	308	2KJ3410- ■ HG23- ■ ■ U1 -Z P01		
	3.4	6140	285.00	65000	1.3	308	2KJ3410- ■ HG23- ■ ■ T1 -Z P01		
	<b>FD.149-LE100ZLSA4P</b>								
	3.9	5400	377.00	65000	1.5	278	2KJ3410- ■ FN23- ■ ■ W1 -Z -		
	4.5	4630	323.04	65000	1.7	278	2KJ3410- ■ FN23- ■ ■ V1 -Z -		
	4.8	4360	304.03	65000	1.8	278	2KJ3410- ■ FN23- ■ ■ U1 -Z -		
	5.1	4080	285.00	65000	2	278	2KJ3410- ■ FN23- ■ ■ T1 -Z -		
	<b>FD.129-FZ90LDA6TV</b>								
	3.6	5780	413.00	37500	0.84	164	2KJ3408- ■ ET25- ■ ■ T1 -Z P01		
	3.9	5330	381.00	37500	0.91	164	2KJ3408- ■ ET25- ■ ■ S1 -Z P01		
	4.3	4910	351.00	37500	0.99	164	2KJ3408- ■ ET25- ■ ■ R1 -Z P01		
	5.0	4190	299.31	37500	1.2	164	2KJ3408- ■ ET25- ■ ■ Q1 -Z P01		
	5.3	3940	281.70	37500	1.2	164	2KJ3408- ■ ET25- ■ ■ P1 -Z P01		
	5.7	3660	261.42	37500	1.3	164	2KJ3408- ■ ET25- ■ ■ N1 -Z P01		
	6.5	3230	231.12	37500	1.5	164	2KJ3408- ■ ET25- ■ ■ M1 -Z P01		
	7.3	2880	206.32	37500	1.7	164	2KJ3408- ■ ET25- ■ ■ L1 -Z P01		
	8.1	2600	185.66	37500	1.9	164	2KJ3408- ■ ET25- ■ ■ K1 -Z P01		
	9.3	2250	161.14	37500	2.1	164	2KJ3408- ■ ET25- ■ ■ J1 -Z P01		
	<b>FD.129-LE100ZLSA4P</b>								
	3.5	5920	413.00	36100	0.82	191	2KJ3408- ■ FN23- ■ ■ T1 -Z -		
	3.8	5460	381.00	36600	0.89	191	2KJ3408- ■ FN23- ■ ■ S1 -Z -		
	4.2	5030	351.00	37000	0.96	191	2KJ3408- ■ FN23- ■ ■ R1 -Z -		
	4.9	4290	299.31	37500	1.1	191	2KJ3408- ■ FN23- ■ ■ Q1 -Z -		
	5.2	4040	281.70	37500	1.2	191	2KJ3408- ■ FN23- ■ ■ P1 -Z -		
	5.6	3740	261.42	37500	1.3	191	2KJ3408- ■ FN23- ■ ■ N1 -Z -		
	6.3	3310	231.12	37500	1.5	191	2KJ3408- ■ FN23- ■ ■ M1 -Z -		
	7.1	2950	206.32	37500	1.6	191	2KJ3408- ■ FN23- ■ ■ L1 -Z -		
7.9	2660	185.66	37500	1.8	191	2KJ3408- ■ FN23- ■ ■ K1 -Z -			
9.1	2310	161.14	37500	2.1	191	2KJ3408- ■ FN23- ■ ■ J1 -Z -			
<b>FD.109-FZ90LDA6TV</b>									
6.3	3340	238.52	25000	0.93	112	2KJ3407- ■ ET25- ■ ■ N1 -Z P01			
6.7	3140	224.49	25000	0.99	112	2KJ3407- ■ ET25- ■ ■ M1 -Z P01			
7.2	2900	207.31	25000	1.1	112	2KJ3407- ■ ET25- ■ ■ L1 -Z P01			
8.1	2580	184.46	25000	1.2	112	2KJ3407- ■ ET25- ■ ■ K1 -Z P01			
9.2	2290	163.83	25000	1.4	112	2KJ3407- ■ ET25- ■ ■ J1 -Z P01			
10.2	2050	146.65	25000	1.5	112	2KJ3407- ■ ET25- ■ ■ H1 -Z P01			
12.0	1750	125.37	25000	1.8	112	2KJ3407- ■ ET25- ■ ■ G1 -Z P01			

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
2.2	<b>FD.109-FZ90LDA6TV</b>								
	13.4	1560	111.95	25000	2.0	112	2KJ3407-	ET25-	F1 -Z P01
	<b>FD.109-LE100ZLSA4P</b>								
	6.1	3420	238.52	25000	0.91	137	2KJ3407-	FN23-	N1 -Z -
	6.5	3210	224.49	25000	0.96	137	2KJ3407-	FN23-	M1 -Z -
	7.1	2970	207.31	25000	1	137	2KJ3407-	FN23-	L1 -Z -
	7.9	2640	184.46	25000	1.2	137	2KJ3407-	FN23-	K1 -Z -
	8.9	2350	163.83	25000	1.3	137	2KJ3407-	FN23-	J1 -Z -
	10	2100	146.65	25000	1.5	137	2KJ3407-	FN23-	H1 -Z -
	12	1790	125.37	25000	1.7	137	2KJ3407-	FN23-	G1 -Z -
	13	1600	111.95	25000	1.9	137	2KJ3407-	FN23-	F1 -Z -
	15	1410	98.94	25000	2.2	137	2KJ3407-	FN23-	E1 -Z -
	<b>FD.89-FZ90LDA6TV</b>								
	9.5	2200	157.74	17700	0.84	74	2KJ3406-	ET25-	K1 -Z P01
	10.1	2070	148.46	17700	0.89	74	2KJ3406-	ET25-	J1 -Z P01
	11.0	1900	136.21	17700	0.97	74	2KJ3406-	ET25-	H1 -Z P01
	12.6	1660	118.98	17700	1.1	74	2KJ3406-	ET25-	G1 -Z P01
	14.1	1490	106.52	17700	1.2	74	2KJ3406-	ET25-	F1 -Z P01
	16.1	1300	93.14	17700	1.4	74	2KJ3406-	ET25-	E1 -Z P01
18.8	1110	79.95	17700	1.7	74	2KJ3406-	ET25-	D1 -Z P01	
21	985	70.67	17700	1.9	74	2KJ3406-	ET25-	C1 -Z P01	
<b>FD.89-LE100ZLSA4P</b>									
9.3	2260	157.74	17400	0.82	96	2KJ3406-	FN23-	K1 -Z -	
9.9	2120	148.46	17400	0.87	96	2KJ3406-	FN23-	J1 -Z -	
11	1950	136.21	17400	0.95	96	2KJ3406-	FN23-	H1 -Z -	
12	1700	118.98	17400	1.1	96	2KJ3406-	FN23-	G1 -Z -	
14	1520	106.52	17400	1.2	96	2KJ3406-	FN23-	F1 -Z -	
16	1330	93.14	17400	1.4	96	2KJ3406-	FN23-	E1 -Z -	
18	1140	79.95	17400	1.6	96	2KJ3406-	FN23-	D1 -Z -	
21	1010	70.67	17400	1.8	96	2KJ3406-	FN23-	C1 -Z -	
24	860	60.09	17400	2.1	96	2KJ3406-	FN23-	B1 -Z -	
28	735	51.51	17400	2.5	96	2KJ3406-	FN23-	A1 -Z -	
<b>FZ.89-FZ90LDA6TV</b>									
24	860	61.72	17700	2.1	73	2KJ3306-	ET25-	B2 -Z P01	
27	780	55.72	17700	2.4	73	2KJ3306-	ET25-	A2 -Z P01	
<b>FZ.89-LE100ZLSA4P</b>									
24	885	61.72	17400	2.1	95	2KJ3306-	FN23-	B2 -Z -	
26	795	55.72	17400	2.3	95	2KJ3306-	FN23-	A2 -Z -	
<b>FD.79-FZ90LDA6TV</b>									
18.3	1140	81.99	14800	0.87	44	2KJ3405-	ET25-	D1 -Z P01	
21	1000	72.09	14800	0.99	44	2KJ3405-	ET25-	C1 -Z P01	
25	850	60.82	14800	1.2	44	2KJ3405-	ET25-	B1 -Z P01	
<b>FD.79-LE100ZLSA4P</b>									
18	1170	81.99	13200	0.85	65	2KJ3405-	FN23-	D1 -Z -	
20	1030	72.09	13500	0.97	65	2KJ3405-	FN23-	C1 -Z -	
24	870	60.82	13800	1.1	65	2KJ3405-	FN23-	B1 -Z -	
28	760	53.01	14000	1.3	65	2KJ3405-	FN23-	A1 -Z -	
<b>FZ.79-FZ90LDA6TV</b>									
28	750	53.55	14800	1.3	43	2KJ3305-	ET25-	X1 -Z P01	
31	670	48.03	14800	1.5	43	2KJ3305-	ET25-	W1 -Z P01	
35	600	43.18	14800	1.7	43	2KJ3305-	ET25-	V1 -Z P01	
38	545	39.06	14800	1.8	43	2KJ3305-	ET25-	U1 -Z P01	
42	500	36.05	14800	2.0	43	2KJ3305-	ET25-	T1 -Z P01	
45	460	33.02	14800	2.2	43	2KJ3305-	ET25-	S1 -Z P01	
54	385	27.71	14800	2.6	43	2KJ3305-	ET25-	R1 -Z P01	
58	365	26.08	14800	2.7	43	2KJ3305-	ET25-	Q1 -Z P01	
63	335	23.93	14800	3.0	43	2KJ3305-	ET25-	P1 -Z P01	
<b>FZ.79-LE100ZLSA4P</b>									
31	685	48.03	14200	1.5	64	2KJ3305-	FN23-	W1 -Z -	
34	615	43.18	14300	1.6	64	2KJ3305-	FN23-	V1 -Z -	
38	560	39.06	14400	1.8	64	2KJ3305-	FN23-	U1 -Z -	

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

# Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
<b>2.2</b>	<b>FZ.79-LE100ZLSA4P</b>								
	41	515	36.05	14500	1.9	64	2KJ3305- FN23- T1	-Z -	
	44	470	33.02	14500	2.1	64	2KJ3305- FN23- S1	-Z -	
	53	395	27.71	14500	2.5	64	2KJ3305- FN23- R1	-Z -	
	56	370	26.08	14500	2.7	64	2KJ3305- FN23- Q1	-Z -	
	61	340	23.93	14500	2.9	64	2KJ3305- FN23- P1	-Z -	
	<b>FD.69-LE100ZLSA4P</b>								
	30	700	48.80	7780	0.86	58	2KJ3404- FN23- A1	-Z -	
	<b>FZ.69-FZ90LDA6TV</b>								
	30	700	50.00	8020	0.86	37	2KJ3304- ET25- V1	-Z P01	
	33	635	45.45	8040	0.94	37	2KJ3304- ET25- U1	-Z P01	
	37	565	40.56	8040	1.1	37	2KJ3304- ET25- T1	-Z P01	
	41	505	36.36	8000	1.2	37	2KJ3304- ET25- S1	-Z P01	
	46	455	32.78	7940	1.3	37	2KJ3304- ET25- R1	-Z P01	
	50	420	30.26	7880	1.4	37	2KJ3304- ET25- Q1	-Z P01	
	54	385	27.62	7780	1.6	37	2KJ3304- ET25- P1	-Z P01	
	65	320	22.92	7580	1.9	37	2KJ3304- ET25- N1	-Z P01	
	70	300	21.57	7510	2.0	37	2KJ3304- ET25- M1	-Z P01	
	74	285	20.37	7430	2.1	37	2KJ3304- ET25- L1	-Z P01	
	87	240	17.33	7230	2.5	37	2KJ3304- ET25- K1	-Z P01	
	101	205	14.85	7020	2.9	37	2KJ3304- ET25- J1	-Z P01	
	115	182	13.06	6810	3.3	37	2KJ3304- ET25- H1	-Z P01	
	136	154	11.01	6550	3.9	37	2KJ3304- ET25- G1	-Z P01	
	169	124	8.90	6160	3.8	37	2KJ3304- ET25- E1	-Z P01	
	197	106	7.62	5930	4.4	37	2KJ3304- ET25- D1	-Z P01	
	<b>FZ.69-LE100ZLSA4P</b>								
	36	580	40.56	7800	1	57	2KJ3304- FN23- T1	-Z -	
	40	520	36.36	7760	1.2	57	2KJ3304- FN23- S1	-Z -	
	45	470	32.78	7700	1.3	57	2KJ3304- FN23- R1	-Z -	
	48	430	30.26	7670	1.4	57	2KJ3304- FN23- Q1	-Z -	
	53	395	27.62	7570	1.5	57	2KJ3304- FN23- P1	-Z -	
	64	325	22.92	7400	1.8	57	2KJ3304- FN23- N1	-Z -	
	68	305	21.57	7340	1.9	57	2KJ3304- FN23- M1	-Z -	
	72	290	20.37	7260	2.1	57	2KJ3304- FN23- L1	-Z -	
	85	245	17.33	7060	2.4	57	2KJ3304- FN23- K1	-Z -	
	99	210	14.85	6840	2.8	57	2KJ3304- FN23- J1	-Z -	
	112	187	13.06	6640	3.2	57	2KJ3304- FN23- H1	-Z -	
	133	158	11.01	6390	3.8	57	2KJ3304- FN23- G1	-Z -	
	165	128	8.90	6030	3.7	57	2KJ3304- FN23- E1	-Z -	
	192	109	7.62	5810	4.3	57	2KJ3304- FN23- D1	-Z -	
	<b>FZ.49-FZ90LDA6TV</b>								
	39	535	38.53	4480	0.89	33	2KJ3303- ET25- T1	-Z P01	
	43	480	34.55	4550	0.99	33	2KJ3303- ET25- S1	-Z P01	
	48	435	31.14	4580	1.1	33	2KJ3303- ET25- R1	-Z P01	
	52	400	28.74	4620	1.2	33	2KJ3303- ET25- Q1	-Z P01	
	57	365	26.24	4630	1.3	33	2KJ3303- ET25- P1	-Z P01	
	69	300	21.77	4630	1.6	33	2KJ3303- ET25- N1	-Z P01	
	73	285	20.49	4600	1.7	33	2KJ3303- ET25- M1	-Z P01	
	78	270	19.35	4570	1.8	33	2KJ3303- ET25- L1	-Z P01	
	91	230	16.47	4500	2.1	33	2KJ3303- ET25- K1	-Z P01	
	106	197	14.11	4420	2.4	33	2KJ3303- ET25- J1	-Z P01	
	121	173	12.40	4330	2.8	33	2KJ3303- ET25- H1	-Z P01	
	143	146	10.46	4210	3.3	33	2KJ3303- ET25- G1	-Z P01	
	164	127	9.12	4100	3.8	33	2KJ3303- ET25- F1	-Z P01	
	179	117	8.40	3950	3.8	33	2KJ3303- ET25- E1	-Z P01	
	208	100	7.20	3830	4.5	33	2KJ3303- ET25- D1	-Z P01	
	<b>FZ.49-LE100ZLSA4P</b>								
	38	550	38.53	5050	0.87	53	2KJ3303- FN23- T1	-Z -	
	42	495	34.55	5110	0.97	53	2KJ3303- FN23- S1	-Z -	
	47	445	31.14	5150	1.1	53	2KJ3303- FN23- R1	-Z -	
	51	410	28.74	5160	1.2	53	2KJ3303- FN23- Q1	-Z -	

**Article No. supplement**

Shaft design	<b>1 or 9</b>	see page 10/49
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
<b>2.2</b>	<b>FZ.49-LE100ZLSA4P</b>								
	56	375	26.24	5160	1.3	53	2KJ3303-	FN23-	P1 -Z -
	67	310	21.77	5120	1.5	53	2KJ3303-	FN23-	N1 -Z -
	71	290	20.49	5110	1.6	53	2KJ3303-	FN23-	M1 -Z -
	76	275	19.35	5080	1.7	53	2KJ3303-	FN23-	L1 -Z -
	89	235	16.47	4980	2	53	2KJ3303-	FN23-	K1 -Z -
	104	200	14.11	4880	2.4	53	2KJ3303-	FN23-	J1 -Z -
	118	178	12.40	4760	2.7	53	2KJ3303-	FN23-	H1 -Z -
	140	150	10.46	4620	3.2	53	2KJ3303-	FN23-	G1 -Z -
	161	131	9.12	4490	3.7	53	2KJ3303-	FN23-	F1 -Z -
	174	120	8.40	4330	3.7	53	2KJ3303-	FN23-	E1 -Z -
	203	103	7.20	4190	4.4	53	2KJ3303-	FN23-	D1 -Z -
	<b>FZ.49-LE90ZLR2P</b>								
	150	140	19.35	4550	3.4	35	2KJ3303-	EM23-	L1 -Z P00
	177	119	16.47	4400	4	35	2KJ3303-	EM23-	K1 -Z P00
	<b>FZ.39-FZ90LDA6TV</b>								
	72	290	20.71	4200	0.86	25	2KJ3302-	ET25-	P1 -Z P01
	87	240	17.24	4180	0.97	25	2KJ3302-	ET25-	N1 -Z P01
	92	225	16.22	4170	1.0	25	2KJ3302-	ET25-	M1 -Z P01
	103	200	14.54	4140	1.1	25	2KJ3302-	ET25-	L1 -Z P01
	121	173	12.38	4050	1.2	25	2KJ3302-	ET25-	K1 -Z P01
	141	148	10.61	3960	1.3	25	2KJ3302-	ET25-	J1 -Z P01
	164	127	9.13	3870	1.5	25	2KJ3302-	ET25-	H1 -Z P01
	185	113	8.10	3690	1.5	25	2KJ3302-	ET25-	G1 -Z P01
	223	94	6.74	3570	1.6	25	2KJ3302-	ET25-	F1 -Z P01
	236	88	6.35	3530	1.7	25	2KJ3302-	ET25-	E1 -Z P01
	264	79	5.69	3450	1.8	25	2KJ3302-	ET25-	D1 -Z P01
	310	67	4.84	3330	1.9	25	2KJ3302-	ET25-	C1 -Z P01
	361	58	4.15	3210	2.0	25	2KJ3302-	ET25-	B1 -Z P01
	420	50	3.57	3090	2.2	25	2KJ3302-	ET25-	A1 -Z P01
	<b>FZ.39-LE100ZLSA4P</b>								
	71	295	20.71	4380	0.84	42	2KJ3302-	FN23-	P1 -Z -
	85	245	17.24	4360	0.95	42	2KJ3302-	FN23-	N1 -Z -
	90	230	16.22	4350	0.99	42	2KJ3302-	FN23-	M1 -Z -
	101	205	14.54	4320	1.1	42	2KJ3302-	FN23-	L1 -Z -
	118	178	12.38	4210	1.2	42	2KJ3302-	FN23-	K1 -Z -
	138	152	10.61	4130	1.3	42	2KJ3302-	FN23-	J1 -Z -
	160	131	9.13	4030	1.4	42	2KJ3302-	FN23-	H1 -Z -
	181	116	8.10	3840	1.4	42	2KJ3302-	FN23-	G1 -Z -
	217	97	6.74	3720	1.6	42	2KJ3302-	FN23-	F1 -Z -
	231	91	6.35	3670	1.6	42	2KJ3302-	FN23-	E1 -Z -
	257	82	5.69	3590	1.7	42	2KJ3302-	FN23-	D1 -Z -
	303	69	4.84	3480	1.8	42	2KJ3302-	FN23-	C1 -Z -
	353	60	4.15	3350	2	42	2KJ3302-	FN23-	B1 -Z -
	410	51	3.57	3240	2.1	42	2KJ3302-	FN23-	A1 -Z -
	<b>FZ.39-LE90ZLR2P</b>								
	169	124	17.24	4000	1.9	27	2KJ3302-	EM23-	N1 -Z P00
	179	117	16.22	3950	2	27	2KJ3302-	EM23-	M1 -Z P00
	200	105	14.54	3870	2.1	27	2KJ3302-	EM23-	L1 -Z P00
	235	89	12.38	3740	2.3	27	2KJ3302-	EM23-	K1 -Z P00
	274	77	10.61	3610	2.6	27	2KJ3302-	EM23-	J1 -Z P00
	319	66	9.13	3490	2.9	27	2KJ3302-	EM23-	H1 -Z P00
	359	58	8.10	3340	2.9	27	2KJ3302-	EM23-	G1 -Z P00
	432	49	6.74	3190	3.1	27	2KJ3302-	EM23-	F1 -Z P00
	458	46	6.35	3140	3.2	27	2KJ3302-	EM23-	E1 -Z P00
	511	41	5.69	3060	3.4	27	2KJ3302-	EM23-	D1 -Z P00
	601	35	4.84	2930	3.7	27	2KJ3302-	EM23-	C1 -Z P00
	701	30	4.15	2810	3.9	27	2KJ3302-	EM23-	B1 -Z P00
	815	26	3.57	2690	4.2	27	2KJ3302-	EM23-	A1 -Z P00
	<b>FZ.29-FZ90LDA6TV</b>								
	115	182	13.06	2820	0.82	18	2KJ3301-	ET25-	M1 -Z P01

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
<b>2.2</b>	<b>FZ.29-FZ90LDA6TV</b>							
	130	161	11.51	2810	0.89	18	2KJ3301- ET25- L1	-Z P01
	150	139	9.99	2790	0.97	18	2KJ3301- ET25- K1	-Z P01
	155	135	9.69	2590	1.1	18	2KJ3301- ET25- J1	-Z P01
	174	120	8.63	2580	1.1	18	2KJ3301- ET25- H1	-Z P01
	188	111	7.97	2570	1.1	18	2KJ3301- ET25- G1	-Z P01
	215	97	6.98	2540	1.3	18	2KJ3301- ET25- F1	-Z P01
	245	85	6.12	2500	1.3	18	2KJ3301- ET25- E1	-Z P01
	270	77	5.55	2470	1.4	18	2KJ3301- ET25- D1	-Z P01
	287	73	5.22	2450	1.4	18	2KJ3301- ET25- C1	-Z P01
	326	64	4.60	2400	1.5	18	2KJ3301- ET25- B1	-Z P01
	375	56	4.00	2340	1.6	18	2KJ3301- ET25- A1	-Z P01
	<b>FZ.29-LE100ZLSA4P</b>							
	112	187	13.06	2910	0.8	35	2KJ3301- FN23- M1	-Z -
	127	165	11.51	2910	0.87	35	2KJ3301- FN23- L1	-Z -
	147	143	9.99	2890	0.95	35	2KJ3301- FN23- K1	-Z -
	151	139	9.69	2690	1	35	2KJ3301- FN23- J1	-Z -
	170	124	8.63	2690	1.1	35	2KJ3301- FN23- H1	-Z -
	184	114	7.97	2680	1	35	2KJ3301- FN23- G1	-Z -
	210	100	6.98	2650	1.2	35	2KJ3301- FN23- F1	-Z -
	239	88	6.12	2610	1.3	35	2KJ3301- FN23- E1	-Z -
	264	80	5.55	2580	1.4	35	2KJ3301- FN23- D1	-Z -
	281	75	5.22	2560	1.4	35	2KJ3301- FN23- C1	-Z -
	318	66	4.60	2510	1.5	35	2KJ3301- FN23- B1	-Z -
	366	57	4.00	2450	1.6	35	2KJ3301- FN23- A1	-Z -
	<b>FZ.29-LE90ZLR2P</b>							
	167	126	17.44	2860	1.2	21	2KJ3301- EM23- Q1	-Z P00
	190	110	15.29	2830	1.4	21	2KJ3301- EM23- P1	-Z P00
	210	100	13.88	2790	1.5	21	2KJ3301- EM23- N1	-Z P00
	223	94	13.06	2770	1.6	21	2KJ3301- EM23- M1	-Z P00
	253	83	11.51	2710	1.7	21	2KJ3301- EM23- L1	-Z P00
	291	72	9.99	2650	1.9	21	2KJ3301- EM23- K1	-Z P00
	300	70	9.69	2530	2	21	2KJ3301- EM23- J1	-Z P00
	337	62	8.63	2490	2.1	21	2KJ3301- EM23- H1	-Z P00
	365	58	7.97	2450	2.1	21	2KJ3301- EM23- G1	-Z P00
	417	50	6.98	2390	2.4	21	2KJ3301- EM23- F1	-Z P00
	475	44	6.12	2330	2.6	21	2KJ3301- EM23- E1	-Z P00
	524	40	5.55	2280	2.7	21	2KJ3301- EM23- D1	-Z P00
	557	38	5.22	2250	2.8	21	2KJ3301- EM23- C1	-Z P00
	633	33	4.60	2190	2.9	21	2KJ3301- EM23- B1	-Z P00
	728	29	4.00	2110	3.2	21	2KJ3301- EM23- A1	-Z P00
<b>3</b>	<b>FD.189-LE132SQB6P</b>							
	2.8	10200	347.35	110900	1.9	665	2KJ3412- HH23- T1	-Z P01
	<b>FD.169-LE132SQB6P</b>							
	2.6	10800	368.00	73500	1.3	453	2KJ3411- HH23- V1	-Z P01
	2.8	10000	343.01	73500	1.3	453	2KJ3411- HH23- U1	-Z P01
	3.2	8960	304.94	73500	1.5	453	2KJ3411- HH23- T1	-Z P01
	3.6	8040	273.80	73500	1.7	453	2KJ3411- HH23- S1	-Z P01
	<b>FD.149-LE132SQB6P</b>							
	3	9490	323.04	65000	0.84	306	2KJ3410- HH23- V1	-Z P01
	3.2	8930	304.03	65000	0.9	306	2KJ3410- HH23- U1	-Z P01
	3.4	8370	285.00	65000	0.96	306	2KJ3410- HH23- T1	-Z P01
	<b>FD.149-LE100ZLSB4P</b>							
	3.9	7390	377.00	65000	1.1	278	2KJ3410- FP23- W1	-Z -
	4.5	6330	323.04	65000	1.3	278	2KJ3410- FP23- V1	-Z -
	4.8	5960	304.03	65000	1.3	278	2KJ3410- FP23- U1	-Z -
	5.1	5590	285.00	65000	1.4	278	2KJ3410- FP23- T1	-Z -
	5.8	4950	252.64	65000	1.6	278	2KJ3410- FP23- S1	-Z -
	6.5	4400	224.42	65000	1.8	278	2KJ3410- FP23- R1	-Z -
	7.2	3970	202.50	65000	2	278	2KJ3410- FP23- Q1	-Z -

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Shaft design	<b>1 or 9</b>	see page 10/49
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
<b>3</b>	<b>FD.129-FZ90LF6TV</b>							
	5.0	5710	299.31	37500	0.85	166	2KJ3408- EU25- Q1 -Z	P01
	5.3	5380	281.70	37500	0.90	166	2KJ3408- EU25- P1 -Z	P01
	5.7	4990	261.42	37500	0.97	166	2KJ3408- EU25- N1 -Z	P01
	6.5	4410	231.12	37500	1.1	166	2KJ3408- EU25- M1 -Z	P01
	7.3	3940	206.32	37500	1.2	166	2KJ3408- EU25- L1 -Z	P01
	8.1	3540	185.66	37500	1.4	166	2KJ3408- EU25- K1 -Z	P01
	9.3	3070	161.14	37500	1.6	166	2KJ3408- EU25- J1 -Z	P01
	10.4	2760	144.92	37500	1.8	166	2KJ3408- EU25- H1 -Z	P01
	<b>FD.129-LE100ZLSB4P</b>							
4.9	5870	299.31	36200	0.83	191	2KJ3408- FP23- Q1 -Z	-	
5.2	5520	281.70	36500	0.88	191	2KJ3408- FP23- P1 -Z	-	
5.6	5130	261.42	36900	0.95	191	2KJ3408- FP23- N1 -Z	-	
6.3	4530	231.12	37500	1.1	191	2KJ3408- FP23- M1 -Z	-	
7.1	4040	206.32	37500	1.2	191	2KJ3408- FP23- L1 -Z	-	
7.9	3640	185.66	37500	1.3	191	2KJ3408- FP23- K1 -Z	-	
9.1	3160	161.14	37500	1.5	191	2KJ3408- FP23- J1 -Z	-	
10	2840	144.92	37500	1.7	191	2KJ3408- FP23- H1 -Z	-	
12	2480	126.66	37500	2	191	2KJ3408- FP23- G1 -Z	-	
13	2210	113.03	37500	2.2	191	2KJ3408- FP23- F1 -Z	-	
<b>FD.109-FZ90LF6TV</b>								
8.1	3520	184.46	25000	0.88	114	2KJ3407- EU25- K1 -Z	P01	
9.2	3120	163.83	25000	0.99	114	2KJ3407- EU25- J1 -Z	P01	
10.2	2800	146.65	25000	1.1	114	2KJ3407- EU25- H1 -Z	P01	
12.0	2390	125.37	25000	1.3	114	2KJ3407- EU25- G1 -Z	P01	
13.4	2130	111.95	25000	1.4	114	2KJ3407- EU25- F1 -Z	P01	
<b>FD.109-LE100ZLSB4P</b>								
7.9	3620	184.46	25000	0.86	137	2KJ3407- FP23- K1 -Z	-	
8.9	3210	163.83	25000	0.96	137	2KJ3407- FP23- J1 -Z	-	
10	2870	146.65	25000	1.1	137	2KJ3407- FP23- H1 -Z	-	
12	2460	125.37	25000	1.3	137	2KJ3407- FP23- G1 -Z	-	
13	2190	111.95	25000	1.4	137	2KJ3407- FP23- F1 -Z	-	
15	1940	98.94	25000	1.6	137	2KJ3407- FP23- E1 -Z	-	
17	1700	86.83	25000	1.8	137	2KJ3407- FP23- D1 -Z	-	
19	1480	75.59	25000	2.1	137	2KJ3407- FP23- C1 -Z	-	
23	1260	64.62	25000	2.4	137	2KJ3407- FP23- B1 -Z	-	
21	1380	70.74	25000	2.2	134	2KJ3307- FP23- B2 -Z	-	
22	1280	65.30	25000	2.4	134	2KJ3307- FP23- A2 -Z	-	
<b>FZ.109-FZ90LF6TV</b>								
21	1350	70.74	25000	2.3	111	2KJ3307- EU25- B2 -Z	P01	
<b>FD.89-FZ90LF6TV</b>								
12.6	2270	118.98	17700	0.81	76	2KJ3406- EU25- G1 -Z	P01	
14.1	2030	106.52	17700	0.91	76	2KJ3406- EU25- F1 -Z	P01	
16.1	1770	93.14	17700	1.0	76	2KJ3406- EU25- E1 -Z	P01	
18.8	1520	79.95	17700	1.2	76	2KJ3406- EU25- D1 -Z	P01	
21	1340	70.67	17700	1.4	76	2KJ3406- EU25- C1 -Z	P01	
<b>FD.89-LE100ZLSB4P</b>								
14	2090	106.52	17400	0.89	96	2KJ3406- FP23- F1 -Z	-	
16	1820	93.14	17400	1	96	2KJ3406- FP23- E1 -Z	-	
18	1560	79.95	17400	1.2	96	2KJ3406- FP23- D1 -Z	-	
21	1380	70.67	17400	1.3	96	2KJ3406- FP23- C1 -Z	-	
24	1170	60.09	17400	1.6	96	2KJ3406- FP23- B1 -Z	-	
28	1010	51.51	17400	1.8	96	2KJ3406- FP23- A1 -Z	-	
<b>FZ.89-FZ90LF6TV</b>								
27	1060	55.72	17700	1.7	75	2KJ3306- EU25- A2 -Z	P01	
30	965	50.54	17700	1.9	75	2KJ3306- EU25- X1 -Z	P01	
32	890	46.66	17700	2.1	75	2KJ3306- EU25- W1 -Z	P01	
35	810	42.41	17700	2.3	75	2KJ3306- EU25- V1 -Z	P01	
42	685	35.91	17700	2.7	75	2KJ3306- EU25- U1 -Z	P01	
<b>FZ.89-LE100ZLSB4P</b>								
24	1210	61.72	17400	1.5	95	2KJ3306- FP23- B2 -Z	-	

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Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
3	<b>FZ.89-LE100ZLSB4P</b>							
	26	1090	55.72	17400	1.7	95	2KJ3306- FP23- A2 -Z -	
	29	990	50.54	17400	1.9	95	2KJ3306- FP23- X1 -Z -	
	31	915	46.66	17400	2	95	2KJ3306- FP23- W1 -Z -	
	34	830	42.41	17400	2.2	95	2KJ3306- FP23- V1 -Z -	
	41	705	35.91	17400	2.6	95	2KJ3306- FP23- U1 -Z -	
	<b>FD.79-FZ90LF6TV</b>							
	25	1160	60.82	14800	0.86	46	2KJ3405- EU25- B1 -Z P01	
	28	1010	53.01	14800	0.99	46	2KJ3405- EU25- A1 -Z P01	
	<b>FD.79-LE100ZLSB4P</b>							
	24	1190	60.82	13200	0.84	65	2KJ3405- FP23- B1 -Z -	
	28	1040	53.01	13500	0.96	65	2KJ3405- FP23- A1 -Z -	
	<b>FZ.79-FZ90LF6TV</b>							
	35	820	43.18	14800	1.2	45	2KJ3305- EU25- V1 -Z P01	
	38	745	39.06	14800	1.3	45	2KJ3305- EU25- U1 -Z P01	
	42	685	36.05	14800	1.5	45	2KJ3305- EU25- T1 -Z P01	
	45	630	33.02	14800	1.6	45	2KJ3305- EU25- S1 -Z P01	
	54	525	27.71	14800	1.9	45	2KJ3305- EU25- R1 -Z P01	
	58	495	26.08	14800	2.0	45	2KJ3305- EU25- Q1 -Z P01	
	63	455	23.93	14800	2.2	45	2KJ3305- EU25- P1 -Z P01	
	72	395	20.90	14800	2.5	45	2KJ3305- EU25- N1 -Z P01	
	80	355	18.71	14800	2.8	45	2KJ3305- EU25- M1 -Z P01	
	92	310	16.36	14800	3.2	45	2KJ3305- EU25- L1 -Z P01	
	<b>FZ.79-LE100ZLSB4P</b>							
	30	940	48.03	13700	1.1	64	2KJ3305- FP23- W1 -Z -	
	34	845	43.18	13900	1.2	64	2KJ3305- FP23- V1 -Z -	
	37	765	39.06	14000	1.3	64	2KJ3305- FP23- U1 -Z -	
40	705	36.05	14200	1.4	64	2KJ3305- FP23- T1 -Z -		
44	645	33.02	14300	1.5	64	2KJ3305- FP23- S1 -Z -		
53	540	27.71	14500	1.8	64	2KJ3305- FP23- R1 -Z -		
56	510	26.08	14500	2	64	2KJ3305- FP23- Q1 -Z -		
61	470	23.93	14500	2.1	64	2KJ3305- FP23- P1 -Z -		
70	410	20.90	14500	2.4	64	2KJ3305- FP23- N1 -Z -		
78	365	18.71	14500	2.7	64	2KJ3305- FP23- M1 -Z -		
89	320	16.36	14500	3.1	64	2KJ3305- FP23- L1 -Z -		
<b>FZ.69-FZ90LF6TV</b>								
41	690	36.36	6830	0.86	39	2KJ3304- EU25- S1 -Z P01		
46	625	32.78	6860	0.96	39	2KJ3304- EU25- R1 -Z P01		
50	575	30.26	6890	1.0	39	2KJ3304- EU25- Q1 -Z P01		
54	525	27.62	6890	1.1	39	2KJ3304- EU25- P1 -Z P01		
65	435	22.92	6850	1.4	39	2KJ3304- EU25- N1 -Z P01		
70	410	21.57	6810	1.5	39	2KJ3304- EU25- M1 -Z P01		
74	385	20.37	6800	1.5	39	2KJ3304- EU25- L1 -Z P01		
87	330	17.33	6660	1.8	39	2KJ3304- EU25- K1 -Z P01		
101	280	14.85	6540	2.1	39	2KJ3304- EU25- J1 -Z P01		
115	245	13.06	6410	2.4	39	2KJ3304- EU25- H1 -Z P01		
136	210	11.01	6200	2.9	39	2KJ3304- EU25- G1 -Z P01		
156	183	9.60	6030	3.3	39	2KJ3304- EU25- F1 -Z P01		
169	169	8.90	5850	2.8	39	2KJ3304- EU25- E1 -Z P01		
197	145	7.62	5660	3.2	39	2KJ3304- EU25- D1 -Z P01		
224	127	6.70	5510	3.4	39	2KJ3304- EU25- C1 -Z P01		
265	108	5.66	5280	3.8	39	2KJ3304- EU25- B1 -Z P01		
304	94	4.93	5110	4.1	39	2KJ3304- EU25- A1 -Z P01		
<b>FZ.69-LE100ZLSB4P</b>								
40	710	36.36	6600	0.84	57	2KJ3304- FP23- S1 -Z -		
45	640	32.78	6660	0.93	57	2KJ3304- FP23- R1 -Z -		
48	590	30.26	6690	1	57	2KJ3304- FP23- Q1 -Z -		
53	540	27.62	6690	1.1	57	2KJ3304- FP23- P1 -Z -		
64	450	22.92	6640	1.3	57	2KJ3304- FP23- N1 -Z -		
68	420	21.57	6640	1.4	57	2KJ3304- FP23- M1 -Z -		
72	400	20.37	6590	1.5	57	2KJ3304- FP23- L1 -Z -		

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Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
<b>3</b>	<b>FZ.69-LE100ZLSB4P</b>								
	84	340	17.33	6480	1.8	57	2KJ3304- FP23- K1	-Z -	
	98	290	14.85	6360	2.1	57	2KJ3304- FP23- J1	-Z -	
	112	255	13.06	6230	2.3	57	2KJ3304- FP23- H1	-Z -	
	133	215	11.01	6050	2.8	57	2KJ3304- FP23- G1	-Z -	
	152	188	9.60	5890	3.2	57	2KJ3304- FP23- F1	-Z -	
	164	175	8.90	5730	2.7	57	2KJ3304- FP23- E1	-Z -	
	192	150	7.62	5550	3.1	57	2KJ3304- FP23- D1	-Z -	
	218	131	6.70	5400	3.3	57	2KJ3304- FP23- C1	-Z -	
	258	111	5.66	5190	3.7	57	2KJ3304- FP23- B1	-Z -	
	296	97	4.93	5010	4	57	2KJ3304- FP23- A1	-Z -	
	<b>FZ.49-FZ90LF6TV</b>								
	48	590	31.14	3570	0.81	35	2KJ3303- EU25- R1	-Z P01	
	52	545	28.74	3670	0.87	35	2KJ3303- EU25- Q1	-Z P01	
	57	500	26.24	3750	0.96	35	2KJ3303- EU25- P1	-Z P01	
	69	415	21.77	3880	1.2	35	2KJ3303- EU25- N1	-Z P01	
	73	390	20.49	3910	1.2	35	2KJ3303- EU25- M1	-Z P01	
	78	365	19.35	3950	1.3	35	2KJ3303- EU25- L1	-Z P01	
	91	310	16.47	3980	1.5	35	2KJ3303- EU25- K1	-Z P01	
	106	265	14.11	3970	1.8	35	2KJ3303- EU25- J1	-Z P01	
	121	235	12.40	3930	2.0	35	2KJ3303- EU25- H1	-Z P01	
	143	199	10.46	3860	2.4	35	2KJ3303- EU25- G1	-Z P01	
	164	174	9.12	3790	2.8	35	2KJ3303- EU25- F1	-Z P01	
	179	160	8.40	3640	2.8	35	2KJ3303- EU25- E1	-Z P01	
	208	137	7.20	3560	3.3	35	2KJ3303- EU25- D1	-Z P01	
	237	120	6.33	3490	3.6	35	2KJ3303- EU25- C1	-Z P01	
	281	101	5.34	3390	3.9	35	2KJ3303- EU25- B1	-Z P01	
	323	88	4.65	3300	4.2	35	2KJ3303- EU25- A1	-Z P01	
	<b>FZ.49-LE100ZLSB4P</b>								
	51	560	28.74	4190	0.85	53	2KJ3303- FP23- Q1	-Z -	
	56	515	26.24	4250	0.93	53	2KJ3303- FP23- P1	-Z -	
	67	425	21.77	4380	1.1	53	2KJ3303- FP23- N1	-Z -	
	71	400	20.49	4400	1.2	53	2KJ3303- FP23- M1	-Z -	
	75	380	19.35	4400	1.3	53	2KJ3303- FP23- L1	-Z -	
	89	320	16.47	4430	1.5	53	2KJ3303- FP23- K1	-Z -	
	103	275	14.11	4400	1.7	53	2KJ3303- FP23- J1	-Z -	
	118	240	12.40	4370	2	53	2KJ3303- FP23- H1	-Z -	
	140	205	10.46	4270	2.3	53	2KJ3303- FP23- G1	-Z -	
	160	179	9.12	4190	2.7	53	2KJ3303- FP23- F1	-Z -	
	174	165	8.40	4010	2.7	53	2KJ3303- FP23- E1	-Z -	
	203	141	7.20	3920	3.2	53	2KJ3303- FP23- D1	-Z -	
	231	124	6.33	3840	3.5	53	2KJ3303- FP23- C1	-Z -	
	273	105	5.34	3720	3.8	53	2KJ3303- FP23- B1	-Z -	
	314	91	4.65	3620	4.1	53	2KJ3303- FP23- A1	-Z -	
	<b>FZ.39-FZ90LF6TV</b>								
	121	235	12.38	3600	0.89	27	2KJ3302- EU25- K1	-Z P01	
	141	200	10.61	3590	0.98	27	2KJ3302- EU25- J1	-Z P01	
	164	174	9.13	3530	1.1	27	2KJ3302- EU25- H1	-Z P01	
	185	154	8.10	3360	1.1	27	2KJ3302- EU25- G1	-Z P01	
	223	128	6.74	3290	1.2	27	2KJ3302- EU25- F1	-Z P01	
	236	121	6.35	3260	1.2	27	2KJ3302- EU25- E1	-Z P01	
	264	108	5.69	3210	1.3	27	2KJ3302- EU25- D1	-Z P01	
	310	92	4.84	3130	1.4	27	2KJ3302- EU25- C1	-Z P01	
	361	79	4.15	3040	1.5	27	2KJ3302- EU25- B1	-Z P01	
	420	68	3.57	2950	1.6	27	2KJ3302- EU25- A1	-Z P01	
	<b>FZ.39-LE100ZLSB4P</b>								
	118	240	12.38	3760	0.86	42	2KJ3302- FP23- K1	-Z -	
	138	205	10.61	3740	0.96	42	2KJ3302- FP23- J1	-Z -	
	160	179	9.13	3680	1.1	42	2KJ3302- FP23- H1	-Z -	
	180	159	8.10	3490	1.1	42	2KJ3302- FP23- G1	-Z -	
	217	132	6.74	3430	1.1	42	2KJ3302- FP23- F1	-Z -	

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles	
3	<b>FZ.39-LE100ZLSB4P</b>								
	230	125	6.35	3400	1.2	42	2KJ3302- ■ FP23- ■ ■ E1 -Z -		
	257	112	5.69	3340	1.3	42	2KJ3302- ■ FP23- ■ ■ D1 -Z -		
	302	95	4.84	3260	1.3	42	2KJ3302- ■ FP23- ■ ■ C1 -Z -		
	352	81	4.15	3180	1.4	42	2KJ3302- ■ FP23- ■ ■ B1 -Z -		
	409	70	3.57	3080	1.5	42	2KJ3302- ■ FP23- ■ ■ A1 -Z -		
	<b>FZ.29-FZ90LF6TV</b>								
	215	133	6.98	2210	0.92	20	2KJ3301- ■ EU25- ■ ■ F1 -Z P01		
	245	116	6.12	2220	0.98	20	2KJ3301- ■ EU25- ■ ■ E1 -Z P01		
	270	106	5.55	2200	1.0	20	2KJ3301- ■ EU25- ■ ■ D1 -Z P01		
	287	99	5.22	2210	1.1	20	2KJ3301- ■ EU25- ■ ■ C1 -Z P01		
	326	87	4.60	2190	1.1	20	2KJ3301- ■ EU25- ■ ■ B1 -Z P01		
	375	76	4.00	2150	1.2	20	2KJ3301- ■ EU25- ■ ■ A1 -Z P01		
	<b>FZ.29-LE100ZLSB4P</b>								
	209	137	6.98	2300	0.9	35	2KJ3301- ■ FP23- ■ ■ F1 -Z -		
	239	120	6.12	2310	0.95	35	2KJ3301- ■ FP23- ■ ■ E1 -Z -		
	263	109	5.55	2300	0.99	35	2KJ3301- ■ FP23- ■ ■ D1 -Z -		
	280	102	5.22	2300	1	35	2KJ3301- ■ FP23- ■ ■ C1 -Z -		
	317	90	4.60	2280	1.1	35	2KJ3301- ■ FP23- ■ ■ B1 -Z -		
	365	78	4.00	2250	1.2	35	2KJ3301- ■ FP23- ■ ■ A1 -Z -		
	4	<b>FD.189-LE132MJ6P</b>							
		2.8	13600	347.35	110900	1.4	665	2KJ3412- ■ HK23- ■ ■ T1 -Z P01	
		3.1	12100	310.76	110900	1.6	665	2KJ3412- ■ HK23- ■ ■ S1 -Z P01	
		3.5	10900	280.27	110900	1.7	665	2KJ3412- ■ HK23- ■ ■ R1 -Z P01	
		3.9	9700	247.71	110900	2	665	2KJ3412- ■ HK23- ■ ■ Q1 -Z P01	
		<b>FD.169-LE132MJ6P</b>							
		2.6	14400	368.00	73500	0.94	453	2KJ3411- ■ HK23- ■ ■ V1 -Z P01	
		2.8	13400	343.01	73500	1	453	2KJ3411- ■ HK23- ■ ■ U1 -Z P01	
		3.2	11900	304.94	73500	1.1	453	2KJ3411- ■ HK23- ■ ■ T1 -Z P01	
		3.6	10700	273.80	73500	1.3	453	2KJ3411- ■ HK23- ■ ■ S1 -Z P01	
		<b>FD.169-LE1122MKB4P</b>							
		4	9620	368.00	73500	1.4	426	2KJ3411- ■ GJ23- ■ ■ V1 -Z -	
		4.3	8970	343.01	73500	1.5	426	2KJ3411- ■ GJ23- ■ ■ U1 -Z -	
4.8		7970	304.94	73500	1.7	426	2KJ3411- ■ GJ23- ■ ■ T1 -Z -		
5.3		7160	273.80	73500	1.9	426	2KJ3411- ■ GJ23- ■ ■ S1 -Z -		
5.9		6480	247.84	73500	2.1	426	2KJ3411- ■ GJ23- ■ ■ R1 -Z -		
<b>FD.149-LE1122MKB4P</b>									
3.9		9860	377.00	65000	0.81	280	2KJ3410- ■ GJ23- ■ ■ W1 -Z -		
4.5		8450	323.04	65000	0.95	280	2KJ3410- ■ GJ23- ■ ■ V1 -Z -		
4.8		7950	304.03	65000	1	280	2KJ3410- ■ GJ23- ■ ■ U1 -Z -		
5.1		7450	285.00	65000	1.1	280	2KJ3410- ■ GJ23- ■ ■ T1 -Z -		
5.8		6610	252.64	65000	1.2	280	2KJ3410- ■ GJ23- ■ ■ S1 -Z -		
6.5		5870	224.42	65000	1.4	280	2KJ3410- ■ GJ23- ■ ■ R1 -Z -		
7.2		5290	202.50	65000	1.5	280	2KJ3410- ■ GJ23- ■ ■ Q1 -Z -		
8.1		4690	179.44	65000	1.7	280	2KJ3410- ■ GJ23- ■ ■ P1 -Z -		
9.2		4150	158.91	65000	1.9	280	2KJ3410- ■ GJ23- ■ ■ N1 -Z -		
10		3700	141.43	65000	2.2	280	2KJ3410- ■ GJ23- ■ ■ M1 -Z -		
<b>FD.129-FZ90ZLG6TV</b>									
6.5		5880	231.12	37500	0.82	168	2KJ3408- ■ EV25- ■ ■ M1 -Z P01		
7.3		5250	206.32	37500	0.92	168	2KJ3408- ■ EV25- ■ ■ L1 -Z P01		
8.1		4720	185.66	37500	1.0	168	2KJ3408- ■ EV25- ■ ■ K1 -Z P01		
9.3		4100	161.14	37500	1.2	168	2KJ3408- ■ EV25- ■ ■ J1 -Z P01		
10.4		3690	144.92	37500	1.3	168	2KJ3408- ■ EV25- ■ ■ H1 -Z P01		
<b>FD.129-LE1122MKB4P</b>									
6.3		6040	231.12	36000	0.8	192	2KJ3408- ■ GJ23- ■ ■ M1 -Z -		
7.1		5390	206.32	36600	0.9	192	2KJ3408- ■ GJ23- ■ ■ L1 -Z -		
7.9		4850	185.66	37200	1	192	2KJ3408- ■ GJ23- ■ ■ K1 -Z -		
9.1		4210	161.14	37500	1.2	192	2KJ3408- ■ GJ23- ■ ■ J1 -Z -		
10		3790	144.92	37500	1.3	192	2KJ3408- ■ GJ23- ■ ■ H1 -Z -		
12		3310	126.66	37500	1.5	192	2KJ3408- ■ GJ23- ■ ■ G1 -Z -		
13		2950	113.03	37500	1.6	192	2KJ3408- ■ GJ23- ■ ■ F1 -Z -		

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
4	<b>FD.129-LE112ZMKB4P</b>								
	15	2600	99.58	37500	1.9	192	2KJ3408- GJ23- E1 -Z -		
	17	2280	87.25	37500	2.1	192	2KJ3408- GJ23- D1 -Z -		
	<b>FD.109-FZ90ZLG6TV</b>								
	10.2	3730	146.65	25000	0.83	117	2KJ3407- EV25- H1 -Z P01		
	12.0	3190	125.37	25000	0.97	117	2KJ3407- EV25- G1 -Z P01		
	13.4	2850	111.95	25000	1.1	117	2KJ3407- EV25- F1 -Z P01		
	<b>FD.109-LE112ZMKB4P</b>								
	10	3830	146.65	25000	0.81	137	2KJ3407- GJ23- H1 -Z -		
	12	3280	125.37	25000	0.95	137	2KJ3407- GJ23- G1 -Z -		
	13	2920	111.95	25000	1.1	137	2KJ3407- GJ23- F1 -Z -		
	15	2580	98.94	25000	1.2	137	2KJ3407- GJ23- E1 -Z -		
	17	2270	86.83	25000	1.4	137	2KJ3407- GJ23- D1 -Z -		
	19	1970	75.59	25000	1.6	137	2KJ3407- GJ23- C1 -Z -		
	23	1690	64.62	25000	1.8	137	2KJ3407- GJ23- B1 -Z -		
	26	1440	55.31	25000	2.1	137	2KJ3407- GJ23- A1 -Z -		
	<b>FZ.109-FZ90ZLG6TV</b>								
	25	1530	60.12	25000	2.0	114	2KJ3307- EV25- X1 -Z P01		
	29	1300	51.27	25000	2.4	114	2KJ3307- EV25- W1 -Z P01		
31	1220	48.25	25000	2.5	114	2KJ3307- EV25- V1 -Z P01			
<b>FZ.109-LE112ZMKB4P</b>									
21	1850	70.74	25000	1.7	134	2KJ3307- GJ23- B2 -Z -			
22	1700	65.30	25000	1.8	134	2KJ3307- GJ23- A2 -Z -			
24	1570	60.12	25000	2	134	2KJ3307- GJ23- X1 -Z -			
28	1340	51.27	25000	2.3	134	2KJ3307- GJ23- W1 -Z -			
30	1260	48.25	25000	2.5	134	2KJ3307- GJ23- V1 -Z -			
33	1170	44.78	25000	2.6	134	2KJ3307- GJ23- U1 -Z -			
<b>FD.89-FZ90ZLG6TV</b>									
18.8	2030	79.95	17700	0.91	79	2KJ3406- EV25- D1 -Z P01			
21	1790	70.67	17700	1.0	79	2KJ3406- EV25- C1 -Z P01			
<b>FD.89-LE112ZMKB4P</b>									
18	2090	79.95	17400	0.88	96	2KJ3406- GJ23- D1 -Z -			
21	1840	70.67	17400	1	96	2KJ3406- GJ23- C1 -Z -			
24	1570	60.09	17400	1.2	96	2KJ3406- GJ23- B1 -Z -			
28	1340	51.51	17400	1.4	96	2KJ3406- GJ23- A1 -Z -			
<b>FZ.89-FZ90ZLG6TV</b>									
35	1080	42.41	17700	1.7	78	2KJ3306- EV25- V1 -Z P01			
42	910	35.91	17700	2.0	78	2KJ3306- EV25- U1 -Z P01			
44	860	33.80	17700	2.1	78	2KJ3306- EV25- T1 -Z P01			
48	790	31.21	17700	2.3	78	2KJ3306- EV25- S1 -Z P01			
54	705	27.77	17700	2.6	78	2KJ3306- EV25- R1 -Z P01			
61	625	24.67	17700	2.9	78	2KJ3306- EV25- Q1 -Z P01			
<b>FD.89-LE112ZMKB4P</b>									
24	1610	61.72	17400	1.1	95	2KJ3306- GJ23- B2 -Z -			
26	1450	55.72	17400	1.3	95	2KJ3306- GJ23- A2 -Z -			
29	1320	50.54	17400	1.4	95	2KJ3306- GJ23- X1 -Z -			
31	1220	46.66	17400	1.5	95	2KJ3306- GJ23- W1 -Z -			
34	1110	42.41	17400	1.7	95	2KJ3306- GJ23- V1 -Z -			
41	940	35.91	17400	2	95	2KJ3306- GJ23- U1 -Z -			
43	880	33.80	17400	2.1	95	2KJ3306- GJ23- T1 -Z -			
47	815	31.21	17400	2.3	95	2KJ3306- GJ23- S1 -Z -			
53	725	27.77	17400	2.5	95	2KJ3306- GJ23- R1 -Z -			
59	645	24.67	17400	2.9	95	2KJ3306- GJ23- Q1 -Z -			
<b>FZ.79-FZ90ZLG6TV</b>									
45	840	33.02	14800	1.2	48	2KJ3305- EV25- S1 -Z P01			
54	705	27.71	14800	1.4	48	2KJ3305- EV25- R1 -Z P01			
58	660	26.08	14800	1.5	48	2KJ3305- EV25- Q1 -Z P01			
63	605	23.93	14800	1.6	48	2KJ3305- EV25- P1 -Z P01			
72	530	20.90	14800	1.9	48	2KJ3305- EV25- M1 -Z P01			
80	475	18.71	14800	2.1	48	2KJ3305- EV25- N1 -Z P01			
92	415	16.36	14800	2.4	48	2KJ3305- EV25- L1 -Z P01			

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)		
<b>4</b>	<b>FZ.79-FZ90ZLG6TV</b>								
	107	355	14.04	14800	2.8	48	2KJ3305- EV25- K1	-Z	P01
	121	315	12.41	14800	3.2	48	2KJ3305- EV25- J1	-Z	P01
	176	215	8.51	13800	3.3	48	2KJ3305- EV25- F1	-Z	P01
	202	189	7.44	13400	3.8	48	2KJ3305- EV25- E1	-Z	P01
	235	162	6.39	12900	4.4	48	2KJ3305- EV25- D1	-Z	P01
	<b>FZ.79-LE112ZMKB4P</b>								
	30	1250	48.03	13100	0.8	65	2KJ3305- GJ23- W1	-Z	-
	34	1130	43.18	13300	0.89	65	2KJ3305- GJ23- V1	-Z	-
	37	1020	39.06	13500	0.98	65	2KJ3305- GJ23- U1	-Z	-
	40	940	36.05	13700	1.1	65	2KJ3305- GJ23- T1	-Z	-
	44	860	33.02	13800	1.2	65	2KJ3305- GJ23- S1	-Z	-
	53	725	27.71	14100	1.4	65	2KJ3305- GJ23- R1	-Z	-
	56	680	26.08	14200	1.5	65	2KJ3305- GJ23- Q1	-Z	-
	61	625	23.93	14300	1.6	65	2KJ3305- GJ23- P1	-Z	-
	70	545	20.90	14500	1.8	65	2KJ3305- GJ23- N1	-Z	-
	78	490	18.71	14500	2	65	2KJ3305- GJ23- M1	-Z	-
	89	425	16.36	14500	2.3	65	2KJ3305- GJ23- L1	-Z	-
	104	365	14.04	14500	2.7	65	2KJ3305- GJ23- K1	-Z	-
	118	325	12.41	14400	3.1	65	2KJ3305- GJ23- J1	-Z	-
	138	275	10.56	13900	3.6	65	2KJ3305- GJ23- H1	-Z	-
	172	220	8.51	13100	3.2	65	2KJ3305- GJ23- F1	-Z	-
	196	195	7.44	12700	3.7	65	2KJ3305- GJ23- E1	-Z	-
	228	167	6.39	12200	4.3	65	2KJ3305- GJ23- D1	-Z	-
	259	148	5.64	11800	4.7	65	2KJ3305- GJ23- C1	-Z	-
	<b>FZ.69-FZ90ZLG6TV</b>								
	54	700	27.62	5780	0.85	42	2KJ3304- EV25- P1	-Z	P01
	65	580	22.92	5930	1.0	42	2KJ3304- EV25- N1	-Z	P01
	70	545	21.57	5960	1.1	42	2KJ3304- EV25- M1	-Z	P01
	74	515	20.37	5970	1.2	42	2KJ3304- EV25- L1	-Z	P01
	87	440	17.33	5960	1.4	42	2KJ3304- EV25- K1	-Z	P01
	101	375	14.85	5930	1.6	42	2KJ3304- EV25- J1	-Z	P01
	115	330	13.06	5870	1.8	42	2KJ3304- EV25- H1	-Z	P01
	136	280	11.01	5750	2.1	42	2KJ3304- EV25- G1	-Z	P01
	156	240	9.60	5670	2.5	42	2KJ3304- EV25- F1	-Z	P01
	169	225	8.90	5460	2.1	42	2KJ3304- EV25- E1	-Z	P01
	197	194	7.62	5320	2.4	42	2KJ3304- EV25- D1	-Z	P01
	224	170	6.70	5210	2.6	42	2KJ3304- EV25- C1	-Z	P01
	265	144	5.66	5040	2.8	42	2KJ3304- EV25- B1	-Z	P01
	304	125	4.93	4900	3.1	42	2KJ3304- EV25- A1	-Z	P01
	<b>FZ.69-LE112ZMKB4P</b>								
	53	720	27.62	5580	0.83	58	2KJ3304- GJ23- P1	-Z	-
	64	600	22.92	5710	1	58	2KJ3304- GJ23- N1	-Z	-
	68	560	21.57	5770	1.1	58	2KJ3304- GJ23- M1	-Z	-
	72	530	20.37	5780	1.1	58	2KJ3304- GJ23- L1	-Z	-
	84	450	17.33	5800	1.3	58	2KJ3304- GJ23- K1	-Z	-
	98	385	14.85	5770	1.5	58	2KJ3304- GJ23- J1	-Z	-
	112	340	13.06	5710	1.8	58	2KJ3304- GJ23- H1	-Z	-
	133	285	11.01	5620	2.1	58	2KJ3304- GJ23- G1	-Z	-
	152	250	9.60	5500	2.4	58	2KJ3304- GJ23- F1	-Z	-
	164	230	8.90	5380	2	58	2KJ3304- GJ23- E1	-Z	-
	192	199	7.62	5230	2.3	58	2KJ3304- GJ23- D1	-Z	-
	218	175	6.70	5110	2.5	58	2KJ3304- GJ23- C1	-Z	-
	258	148	5.66	4950	2.8	58	2KJ3304- GJ23- B1	-Z	-
	296	129	4.93	4800	3	58	2KJ3304- GJ23- A1	-Z	-
	<b>FZ.49-FZ90ZLG6TV</b>								
	69	550	21.77	3000	0.87	38	2KJ3303- EV25- N1	-Z	P01
	73	520	20.49	3060	0.92	38	2KJ3303- EV25- M1	-Z	P01
	78	490	19.35	3130	0.97	38	2KJ3303- EV25- L1	-Z	P01
	91	415	16.47	3290	1.1	38	2KJ3303- EV25- K1	-Z	P01
	106	355	14.11	3380	1.3	38	2KJ3303- EV25- J1	-Z	P01

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles	
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)			
<b>4</b>	<b>FZ.49-FZ90ZLG6TV</b>									
	121	315	12.40	3400	1.5	38	2KJ3303- EV25- H1	-Z	P01	
	143	265	10.46	3430	1.8	38	2KJ3303- EV25- G1	-Z	P01	
	164	230	9.12	3430	2.1	38	2KJ3303- EV25- F1	-Z	P01	
	179	210	8.40	3270	2.1	38	2KJ3303- EV25- E1	-Z	P01	
	208	183	7.20	3230	2.5	38	2KJ3303- EV25- D1	-Z	P01	
	237	161	6.33	3200	2.7	38	2KJ3303- EV25- C1	-Z	P01	
	281	135	5.34	3140	2.9	38	2KJ3303- EV25- B1	-Z	P01	
	323	118	4.65	3080	3.2	38	2KJ3303- EV25- A1	-Z	P01	
	<b>4</b>	<b>FZ.49-LE112ZMKB4P</b>								
67		570	21.77	3430	0.84	53	2KJ3303- GJ23- N1	-Z	-	
71		535	20.49	3520	0.9	53	2KJ3303- GJ23- M1	-Z	-	
75		505	19.35	3580	0.95	53	2KJ3303- GJ23- L1	-Z	-	
89		430	16.47	3710	1.1	53	2KJ3303- GJ23- K1	-Z	-	
103		365	14.11	3810	1.3	53	2KJ3303- GJ23- J1	-Z	-	
118		320	12.40	3840	1.5	53	2KJ3303- GJ23- H1	-Z	-	
140		270	10.46	3840	1.8	53	2KJ3303- GJ23- G1	-Z	-	
160		235	9.12	3820	2	53	2KJ3303- GJ23- F1	-Z	-	
174		220	8.40	3610	2	53	2KJ3303- GJ23- E1	-Z	-	
203		188	7.20	3580	2.4	53	2KJ3303- GJ23- D1	-Z	-	
231		166	6.33	3530	2.6	53	2KJ3303- GJ23- C1	-Z	-	
273		140	5.34	3460	2.9	53	2KJ3303- GJ23- B1	-Z	-	
314		122	4.65	3390	3.1	53	2KJ3303- GJ23- A1	-Z	-	
<b>4</b>		<b>FZ.39-FZ90ZLG6TV</b>								
		164	230	9.13	3130	0.81	30	2KJ3302- EV25- H1	-Z	P01
	185	205	8.10	2950	0.81	30	2KJ3302- EV25- G1	-Z	P01	
	223	171	6.74	2950	0.89	30	2KJ3302- EV25- F1	-Z	P01	
	236	161	6.35	2940	0.92	30	2KJ3302- EV25- E1	-Z	P01	
	264	144	5.69	2930	0.97	30	2KJ3302- EV25- D1	-Z	P01	
	310	123	4.84	2880	1.0	30	2KJ3302- EV25- C1	-Z	P01	
	361	105	4.15	2830	1.1	30	2KJ3302- EV25- B1	-Z	P01	
	420	90	3.57	2770	1.2	30	2KJ3302- EV25- A1	-Z	P01	
	<b>4</b>	<b>FZ.39-LE112ZMKB4P</b>								
		217	176	6.74	3060	0.86	45	2KJ3302- GJ23- F1	-Z	-
		230	166	6.35	3050	0.9	45	2KJ3302- GJ23- E1	-Z	-
257		149	5.69	3040	0.94	45	2KJ3302- GJ23- D1	-Z	-	
302		127	4.84	3000	1	45	2KJ3302- GJ23- C1	-Z	-	
352		109	4.15	2940	1.1	45	2KJ3302- GJ23- B1	-Z	-	
409		93	3.57	2890	1.2	45	2KJ3302- GJ23- A1	-Z	-	
<b>4</b>	<b>FZ.29-FZ90ZLG6TV</b>									
	287	132	5.22	1900	0.80	24	2KJ3301- EV25- C1	-Z	P01	
	326	117	4.60	1910	0.83	24	2KJ3301- EV25- B1	-Z	P01	
	375	101	4.00	1920	0.89	24	2KJ3301- EV25- A1	-Z	P01	
<b>5.5</b>	<b>FD.189-LE132ZMS6P</b>									
	2.8	18700	347.35	110900	1	667	2KJ3412- HL23- T1	-Z	P01	
	3.1	16700	310.76	110900	1.1	667	2KJ3412- HL23- S1	-Z	P01	
	3.5	15000	280.27	110900	1.3	667	2KJ3412- HL23- R1	-Z	P01	
	3.9	13300	247.71	110900	1.4	667	2KJ3412- HL23- Q1	-Z	P01	
	<b>5.5</b>	<b>FD.189-LE132ZST4P</b>								
		4.2	12400	347.35	110900	1.5	667	2KJ3412- HJ23- T1	-Z	-
		4.7	11100	310.76	110900	1.7	667	2KJ3412- HJ23- S1	-Z	-
		5.2	10000	280.27	110900	1.9	667	2KJ3412- HJ23- R1	-Z	-
		5.9	8850	247.71	110900	2.1	667	2KJ3412- HJ23- Q1	-Z	-
<b>5.5</b>	<b>FD.169-LE132ZMS6P</b>									
	3.2	16400	304.94	73500	0.83	455	2KJ3411- HL23- T1	-Z	P01	
3.6	14700	273.80	73500	0.92	455	2KJ3411- HL23- S1	-Z	P01		
<b>5.5</b>	<b>FD.169-LE132ZST4P</b>									
	4	13100	368.00	73500	1	455	2KJ3411- HJ23- V1	-Z	-	
	4.3	12200	343.01	73500	1.1	455	2KJ3411- HJ23- U1	-Z	-	
	4.8	10800	304.94	73500	1.2	455	2KJ3411- HJ23- T1	-Z	-	
	5.4	9780	273.80	73500	1.4	455	2KJ3411- HJ23- S1	-Z	-	

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
5.5	<b>FD.169-LE132ZST4P</b>							
	5.9	8850	247.84	73500	1.5	455	2KJ3411- ■ HJ23- ■ ■ R1 -Z -	
	6.8	7770	217.70	73500	1.7	455	2KJ3411- ■ HJ23- ■ ■ Q1 -Z -	
	7.5	7040	197.27	73500	1.9	455	2KJ3411- ■ HJ23- ■ ■ P1 -Z -	
	<b>FD.149-LE132ZST4P</b>							
	5.8	9020	252.64	65000	0.89	308	2KJ3410- ■ HJ23- ■ ■ S1 -Z -	
	6.6	8010	224.42	65000	1	308	2KJ3410- ■ HJ23- ■ ■ R1 -Z -	
	7.3	7230	202.50	65000	1.1	308	2KJ3410- ■ HJ23- ■ ■ Q1 -Z -	
	8.2	6410	179.44	65000	1.2	308	2KJ3410- ■ HJ23- ■ ■ P1 -Z -	
	9.3	5670	158.91	65000	1.4	308	2KJ3410- ■ HJ23- ■ ■ N1 -Z -	
	10	5050	141.43	65000	1.6	308	2KJ3410- ■ HJ23- ■ ■ M1 -Z -	
	12	4520	126.73	65000	1.8	308	2KJ3410- ■ HJ23- ■ ■ L1 -Z -	
	13	4010	112.36	65000	2	308	2KJ3410- ■ HJ23- ■ ■ K1 -Z -	
	<b>FD.129-LE132ZST4P</b>							
	9.1	5750	161.14	36300	0.84	222	2KJ3408- ■ HJ23- ■ ■ J1 -Z -	
	10	5170	144.92	36800	0.94	222	2KJ3408- ■ HJ23- ■ ■ H1 -Z -	
	12	4520	126.66	37500	1.1	222	2KJ3408- ■ HJ23- ■ ■ G1 -Z -	
	13	4030	113.03	37500	1.2	222	2KJ3408- ■ HJ23- ■ ■ F1 -Z -	
	15	3550	99.58	37500	1.4	222	2KJ3408- ■ HJ23- ■ ■ E1 -Z -	
	17	3110	87.25	37500	1.6	222	2KJ3408- ■ HJ23- ■ ■ D1 -Z -	
	19	2710	76.04	37500	1.8	222	2KJ3408- ■ HJ23- ■ ■ C1 -Z -	
	21	2480	69.40	37500	2	222	2KJ3408- ■ HJ23- ■ ■ B1 -Z -	
	25	2130	59.75	37500	2.3	222	2KJ3408- ■ HJ23- ■ ■ A1 -Z -	
	<b>FZ.129-LE132ZST4P</b>							
	21	2470	69.20	37500	2	217	2KJ3308- ■ HJ23- ■ ■ A2 -Z -	
	25	2110	59.22	37500	2.3	217	2KJ3308- ■ HJ23- ■ ■ X1 -Z -	
	26	1990	55.74	37500	2.4	217	2KJ3308- ■ HJ23- ■ ■ W1 -Z -	
	<b>FD.109-LE132ZST4P</b>							
	15	3530	98.94	25000	0.88	168	2KJ3407- ■ HJ23- ■ ■ E1 -Z -	
	17	3100	86.83	25000	1	168	2KJ3407- ■ HJ23- ■ ■ D1 -Z -	
	19	2700	75.59	25000	1.1	168	2KJ3407- ■ HJ23- ■ ■ C1 -Z -	
	23	2300	64.62	25000	1.3	168	2KJ3407- ■ HJ23- ■ ■ B1 -Z -	
	27	1970	55.31	25000	1.6	168	2KJ3407- ■ HJ23- ■ ■ A1 -Z -	
	<b>FZ.109-LE132ZST4P</b>							
	24	2140	60.12	25000	1.4	164	2KJ3307- ■ HJ23- ■ ■ X1 -Z -	
	29	1830	51.27	25000	1.7	164	2KJ3307- ■ HJ23- ■ ■ W1 -Z -	
	30	1720	48.25	25000	1.8	164	2KJ3307- ■ HJ23- ■ ■ V1 -Z -	
	33	1600	44.78	25000	1.9	164	2KJ3307- ■ HJ23- ■ ■ U1 -Z -	
	37	1410	39.59	25000	2.2	164	2KJ3307- ■ HJ23- ■ ■ T1 -Z -	
	42	1260	35.34	25000	2.5	164	2KJ3307- ■ HJ23- ■ ■ S1 -Z -	
	46	1130	31.80	25000	2.7	164	2KJ3307- ■ HJ23- ■ ■ R1 -Z -	
	<b>FD.89-LE132ZST4P</b>							
	24	2140	60.09	17400	0.86	127	2KJ3406- ■ HJ23- ■ ■ B1 -Z -	
	29	1840	51.51	17400	1	127	2KJ3406- ■ HJ23- ■ ■ A1 -Z -	
	<b>FZ.89-LE132ZST4P</b>							
	35	1510	42.41	17400	1.2	126	2KJ3306- ■ HJ23- ■ ■ V1 -Z -	
	41	1280	35.91	17400	1.4	126	2KJ3306- ■ HJ23- ■ ■ U1 -Z -	
	43	1200	33.80	17400	1.5	126	2KJ3306- ■ HJ23- ■ ■ T1 -Z -	
	47	1110	31.21	17400	1.7	126	2KJ3306- ■ HJ23- ■ ■ S1 -Z -	
	53	990	27.77	17400	1.9	126	2KJ3306- ■ HJ23- ■ ■ R1 -Z -	
	60	880	24.67	17400	2.1	126	2KJ3306- ■ HJ23- ■ ■ Q1 -Z -	
	67	785	22.08	17400	2.3	126	2KJ3306- ■ HJ23- ■ ■ P1 -Z -	
	78	675	18.88	17400	2.7	126	2KJ3306- ■ HJ23- ■ ■ N1 -Z -	
	87	600	16.86	17400	3.1	126	2KJ3306- ■ HJ23- ■ ■ M1 -Z -	
	99	530	14.90	17400	3.5	126	2KJ3306- ■ HJ23- ■ ■ L1 -Z -	
	193	270	7.60	17400	4.1	126	2KJ3306- ■ HJ23- ■ ■ F1 -Z -	
	<b>FZ.79-LE132ZST4P</b>							
	45	1180	33.02	13200	0.85	96	2KJ3305- ■ HJ23- ■ ■ S1 -Z -	
	53	990	27.71	13600	1	96	2KJ3305- ■ HJ23- ■ ■ R1 -Z -	
	56	930	26.08	13700	1.1	96	2KJ3305- ■ HJ23- ■ ■ Q1 -Z -	
	61	855	23.93	13900	1.2	96	2KJ3305- ■ HJ23- ■ ■ P1 -Z -	

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code		
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles		
5.5	<b>FZ.79-LE132ZST4P</b>									
	70	745	20.90	14100	1.3	96	2KJ3305- HJ23- N1	-Z -		
	79	665	18.71	14200	1.5	96	2KJ3305- HJ23- M1	-Z -		
	90	585	16.36	14300	1.7	96	2KJ3305- HJ23- L1	-Z -		
	105	500	14.04	14000	2	96	2KJ3305- HJ23- K1	-Z -		
	118	440	12.41	13700	2.3	96	2KJ3305- HJ23- J1	-Z -		
	139	375	10.56	13300	2.7	96	2KJ3305- HJ23- H1	-Z -		
	162	320	9.05	12900	3.1	96	2KJ3305- HJ23- G1	-Z -		
	173	300	8.51	12600	2.4	96	2KJ3305- HJ23- F1	-Z -		
	198	265	7.44	12300	2.7	96	2KJ3305- HJ23- E1	-Z -		
	230	225	6.39	11900	3.2	96	2KJ3305- HJ23- D1	-Z -		
	261	200	5.64	11500	3.5	96	2KJ3305- HJ23- C1	-Z -		
	306	172	4.80	11100	3.8	96	2KJ3305- HJ23- B1	-Z -		
	358	147	4.11	10700	4.1	96	2KJ3305- HJ23- A1	-Z -		
	4	<b>FZ.69-LE132ZST4P</b>								
		72	725	20.37	4560	0.82	88	2KJ3304- HJ23- L1	-Z -	
		85	615	17.33	4760	0.97	88	2KJ3304- HJ23- K1	-Z -	
		99	530	14.85	4860	1.1	88	2KJ3304- HJ23- J1	-Z -	
		113	465	13.06	4920	1.3	88	2KJ3304- HJ23- H1	-Z -	
		134	390	11.01	4950	1.5	88	2KJ3304- HJ23- G1	-Z -	
		153	340	9.60	4930	1.7	88	2KJ3304- HJ23- F1	-Z -	
		165	315	8.90	4810	1.5	88	2KJ3304- HJ23- E1	-Z -	
		193	270	7.62	4760	1.7	88	2KJ3304- HJ23- D1	-Z -	
		219	235	6.70	4710	1.8	88	2KJ3304- HJ23- C1	-Z -	
		260	200	5.66	4590	2	88	2KJ3304- HJ23- B1	-Z -	
		298	176	4.93	4490	2.2	88	2KJ3304- HJ23- A1	-Z -	
		7.5	<b>FZ.49-LE132ZST4P</b>							
			89	585	16.47	2680	0.82	81	2KJ3303- HJ23- K1	-Z -
	104		500	14.11	2910	0.95	81	2KJ3303- HJ23- J1	-Z -	
	119		440	12.40	3040	1.1	81	2KJ3303- HJ23- H1	-Z -	
	141		370	10.46	3180	1.3	81	2KJ3303- HJ23- G1	-Z -	
	161		325	9.12	3220	1.5	81	2KJ3303- HJ23- F1	-Z -	
	175		300	8.40	3020	1.5	81	2KJ3303- HJ23- E1	-Z -	
	204		255	7.20	3080	1.7	81	2KJ3303- HJ23- D1	-Z -	
	232		225	6.33	3090	1.9	81	2KJ3303- HJ23- C1	-Z -	
275	191		5.34	3080	2.1	81	2KJ3303- HJ23- B1	-Z -		
316	166		4.65	3060	2.3	81	2KJ3303- HJ23- A1	-Z -		
7.5	<b>FD.189-LE132ZMS4P</b>									
	4.2		16900	347.35	110900	1.1	667	2KJ3412- HL23- T1	-Z -	
	4.2	16900	347.35	110900	1.1	667	2KJ3412- HL23- S1	-Z -		
	4.7	15100	310.76	110900	1.3	667	2KJ3412- HL23- T1	-Z -		
	4.7	15100	310.76	110900	1.3	667	2KJ3412- HL23- S1	-Z -		
	5.2	13600	280.27	110900	1.4	667	2KJ3412- HL23- R1	-Z -		
	5.2	13700	280.27	110900	1.4	667	2KJ3412- HL23- R1	-Z -		
	5.9	12000	247.71	110900	1.6	667	2KJ3412- HL23- Q1	-Z -		
	5.9	12100	247.71	110900	1.6	667	2KJ3412- HL23- Q1	-Z -		
	6.5	11000	226.42	110900	1.7	667	2KJ3412- HL23- P1	-Z -		
	6.5	11000	226.42	110900	1.7	667	2KJ3412- HL23- P1	-Z -		
	7.2	9920	203.69	110900	1.9	667	2KJ3412- HL23- N1	-Z -		
	7.2	9950	203.69	110900	1.9	667	2KJ3412- HL23- N1	-Z -		
	8	8900	182.03	110900	2.1	667	2KJ3412- HL23- M1	-Z -		
	8.1	8860	182.03	110900	2.1	667	2KJ3412- HL23- M1	-Z -		
	7.5	<b>FD.169-LE132ZMS4P</b>								
		4.3	16700	343.01	73500	0.81	455	2KJ3411- HL23- U1	-Z -	
		4.8	14900	304.94	73500	0.91	455	2KJ3411- HL23- T1	-Z -	
		5.4	13300	273.80	73500	1	455	2KJ3411- HL23- S1	-Z -	
		5.9	12100	247.84	73500	1.1	455	2KJ3411- HL23- R1	-Z -	
6.7		10600	217.70	73500	1.3	455	2KJ3411- HL23- Q1	-Z -		
7.4		9640	197.27	73500	1.4	455	2KJ3411- HL23- P1	-Z -		
8.3		8590	175.69	73500	1.6	455	2KJ3411- HL23- N1	-Z -		
9.3		7710	157.76	73500	1.8	455	2KJ3411- HL23- M1	-Z -		

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
7.5	<b>FD.169-LE132ZMS4P</b>							
	10	6880	140.77	73500	2	455	2KJ3411- HL23- L1	-Z -
	12	6130	125.49	73500	2.2	455	2KJ3411- HL23- K1	-Z -
	<b>FD.149-LE132ZMS4P</b>							
	7.2	9900	202.50	65000	0.81	308	2KJ3410- HL23- Q1	-Z -
	8.2	8770	179.44	65000	0.91	308	2KJ3410- HL23- P1	-Z -
	9.2	7760	158.91	65000	1	308	2KJ3410- HL23- N1	-Z -
	10	6910	141.43	65000	1.2	308	2KJ3410- HL23- M1	-Z -
	12	6190	126.73	65000	1.3	308	2KJ3410- HL23- L1	-Z -
	13	5490	112.36	65000	1.5	308	2KJ3410- HL23- K1	-Z -
	15	4840	99.18	65000	1.6	308	2KJ3410- HL23- J1	-Z -
	17	4260	87.20	64000	1.9	308	2KJ3410- HL23- H1	-Z -
	19	3860	78.98	62800	2.1	308	2KJ3410- HL23- G1	-Z -
	21	3360	68.76	61100	2.4	308	2KJ3410- HL23- F1	-Z -
	<b>FD.129-LE132ZMS4P</b>							
	13	5520	113.03	36500	0.88	222	2KJ3408- HL23- F1	-Z -
	15	4860	99.58	37100	1	222	2KJ3408- HL23- E1	-Z -
	17	4260	87.25	37500	1.1	222	2KJ3408- HL23- D1	-Z -
	19	3710	76.04	37500	1.3	222	2KJ3408- HL23- C1	-Z -
	21	3390	69.40	37500	1.4	222	2KJ3408- HL23- B1	-Z -
	25	2920	59.75	37500	1.7	222	2KJ3408- HL23- A1	-Z -
	<b>FZ.129-LE132ZMS4P</b>							
	21	3380	69.20	37500	1.4	217	2KJ3308- HL23- A2	-Z -
	25	2890	59.22	37500	1.7	217	2KJ3308- HL23- X1	-Z -
	26	2720	55.74	37500	1.8	217	2KJ3308- HL23- W1	-Z -
	28	2550	52.25	37500	1.9	217	2KJ3308- HL23- V1	-Z -
	32	2260	46.32	37500	2.1	217	2KJ3308- HL23- U1	-Z -
	36	2010	41.14	37500	2.4	217	2KJ3308- HL23- T1	-Z -
	39	1810	37.12	37500	2.7	217	2KJ3308- HL23- S1	-Z -
	<b>FD.109-LE132ZMS4P</b>							
	19	3690	75.59	25000	0.84	168	2KJ3407- HL23- C1	-Z -
	23	3150	64.62	25000	0.98	168	2KJ3407- HL23- B1	-Z -
	26	2700	55.31	25000	1.1	168	2KJ3407- HL23- A1	-Z -
	<b>FZ.109-LE132ZMS4P</b>							
	24	2930	60.12	25000	1.1	164	2KJ3307- HL23- X1	-Z -
	29	2500	51.27	25000	1.2	164	2KJ3307- HL23- W1	-Z -
	30	2350	48.25	25000	1.3	164	2KJ3307- HL23- V1	-Z -
	33	2180	44.78	25000	1.4	164	2KJ3307- HL23- U1	-Z -
	37	1930	39.59	25000	1.6	164	2KJ3307- HL23- T1	-Z -
	41	1720	35.34	25000	1.8	164	2KJ3307- HL23- S1	-Z -
	46	1550	31.80	25000	2	164	2KJ3307- HL23- R1	-Z -
	53	1340	27.60	25000	2.3	164	2KJ3307- HL23- Q1	-Z -
	59	1210	24.82	25000	2.6	164	2KJ3307- HL23- P1	-Z -
	68	1060	21.70	25000	2.9	164	2KJ3307- HL23- N1	-Z -
	<b>FZ.89-LE132ZMS4P</b>							
	35	2070	42.41	17400	0.89	126	2KJ3306- HL23- V1	-Z -
	41	1750	35.91	17400	1.1	126	2KJ3306- HL23- U1	-Z -
	43	1650	33.80	17400	1.1	126	2KJ3306- HL23- T1	-Z -
	47	1520	31.21	17400	1.2	126	2KJ3306- HL23- S1	-Z -
	53	1350	27.77	17400	1.4	126	2KJ3306- HL23- R1	-Z -
	59	1200	24.67	17400	1.5	126	2KJ3306- HL23- Q1	-Z -
	66	1080	22.08	17400	1.7	126	2KJ3306- HL23- P1	-Z -
	78	920	18.88	17400	2	126	2KJ3306- HL23- N1	-Z -
	87	820	16.86	17400	2.2	126	2KJ3306- HL23- M1	-Z -
	98	725	14.90	17400	2.5	126	2KJ3306- HL23- L1	-Z -
	112	635	13.07	17400	2.9	126	2KJ3306- HL23- K1	-Z -
	129	555	11.38	17400	3.3	126	2KJ3306- HL23- J1	-Z -
	151	475	9.73	17400	3.9	126	2KJ3306- HL23- H1	-Z -
	193	370	7.60	17300	3	126	2KJ3306- HL23- F1	-Z -
	218	325	6.72	16800	3.4	126	2KJ3306- HL23- E1	-Z -
	248	285	5.90	16200	3.8	126	2KJ3306- HL23- D1	-Z -

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
7.5	<b>FZ.89-LE132ZMS4P</b>							
	286	250	5.13	15700	4.4	126	2KJ3306- HL23- C1	-Z -
	334	215	4.39	15100	4.9	126	2KJ3306- HL23- B1	-Z -
	390	184	3.76	14500	5.4	126	2KJ3306- HL23- A1	-Z -
	<b>FZ.79-LE132ZMS4P</b>							
	61	1170	23.93	13200	0.85	96	2KJ3305- HL23- P1	-Z -
	70	1020	20.90	13400	0.98	96	2KJ3305- HL23- N1	-Z -
	78	915	18.71	13300	1.1	96	2KJ3305- HL23- M1	-Z -
	90	800	16.36	13200	1.3	96	2KJ3305- HL23- L1	-Z -
	104	685	14.04	13100	1.5	96	2KJ3305- HL23- K1	-Z -
	118	605	12.41	12900	1.6	96	2KJ3305- HL23- J1	-Z -
	139	515	10.56	12600	1.9	96	2KJ3305- HL23- H1	-Z -
	162	440	9.05	12300	2.3	96	2KJ3305- HL23- G1	-Z -
	172	415	8.51	12000	1.7	96	2KJ3305- HL23- F1	-Z -
	197	360	7.44	11700	2	96	2KJ3305- HL23- E1	-Z -
	229	310	6.39	11400	2.3	96	2KJ3305- HL23- D1	-Z -
	260	275	5.64	11100	2.5	96	2KJ3305- HL23- C1	-Z -
	305	235	4.80	10700	2.8	96	2KJ3305- HL23- B1	-Z -
	356	200	4.11	10400	3	96	2KJ3305- HL23- A1	-Z -
<b>FZ.69-LE132ZMS4P</b>								
99	725	14.85	3660	0.83	88	2KJ3304- HL23- J1	-Z -	
112	635	13.06	3880	0.94	88	2KJ3304- HL23- H1	-Z -	
133	535	11.01	4060	1.1	88	2KJ3304- HL23- G1	-Z -	
153	465	9.60	4170	1.3	88	2KJ3304- HL23- F1	-Z -	
165	435	8.90	4040	1.1	88	2KJ3304- HL23- E1	-Z -	
192	370	7.62	4120	1.2	88	2KJ3304- HL23- D1	-Z -	
219	325	6.70	4130	1.3	88	2KJ3304- HL23- C1	-Z -	
259	275	5.66	4110	1.5	88	2KJ3304- HL23- B1	-Z -	
297	240	4.93	4080	1.6	88	2KJ3304- HL23- A1	-Z -	
<b>FZ.49-LE132ZMS4P</b>								
140	510	10.46	2270	0.94	84	2KJ3303- HL23- G1	-Z -	
161	445	9.12	2440	1.1	84	2KJ3303- HL23- F1	-Z -	
174	410	8.40	2230	1.1	84	2KJ3303- HL23- E1	-Z -	
203	350	7.20	2400	1.3	84	2KJ3303- HL23- D1	-Z -	
231	305	6.33	2520	1.4	84	2KJ3303- HL23- C1	-Z -	
274	260	5.34	2580	1.5	84	2KJ3303- HL23- B1	-Z -	
315	225	4.65	2640	1.6	84	2KJ3303- HL23- A1	-Z -	
9.2	<b>FD.189-LE160MPA4P</b>							
	4.3	20600	347.35	110900	0.92	684	2KJ3412- JQ23- T1	-Z -
	4.8	18400	310.76	110900	1	684	2KJ3412- JQ23- S1	-Z -
	5.3	16600	280.27	110900	1.1	684	2KJ3412- JQ23- R1	-Z -
	6	14700	247.71	110900	1.3	684	2KJ3412- JQ23- Q1	-Z -
	6.5	13400	226.42	110900	1.4	684	2KJ3412- JQ23- P1	-Z -
	7.3	12000	203.69	110900	1.6	684	2KJ3412- JQ23- N1	-Z -
	8.1	10800	182.03	110900	1.8	684	2KJ3412- JQ23- M1	-Z -
	9	9770	164.61	110900	1.9	684	2KJ3412- JQ23- L1	-Z -
	10	8620	145.28	110900	2.2	684	2KJ3412- JQ23- K1	-Z -
	<b>FD.169-LE160MPA4P</b>							
	5.4	16200	273.80	73500	0.84	472	2KJ3411- JQ23- S1	-Z -
	6	14700	247.84	73500	0.92	472	2KJ3411- JQ23- R1	-Z -
	6.8	12900	217.70	73500	1.1	472	2KJ3411- JQ23- Q1	-Z -
	7.5	11700	197.27	73500	1.2	472	2KJ3411- JQ23- P1	-Z -
	8.4	10400	175.69	73500	1.3	472	2KJ3411- JQ23- N1	-Z -
	9.4	9360	157.76	73500	1.5	472	2KJ3411- JQ23- M1	-Z -
	11	8350	140.77	73500	1.6	472	2KJ3411- JQ23- L1	-Z -
	12	7450	125.49	73500	1.8	472	2KJ3411- JQ23- K1	-Z -
	13	6600	111.30	73500	2.1	472	2KJ3411- JQ23- J1	-Z -
	14	6060	102.18	73500	2.2	472	2KJ3411- JQ23- H1	-Z -
	<b>FD.149-LE160MPA4P</b>							
	9.3	9430	158.91	65000	0.85	325	2KJ3410- JQ23- N1	-Z -
	10	8390	141.43	65000	0.95	325	2KJ3410- JQ23- M1	-Z -

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
<b>9.2</b>	<b>FD.149-LE160MPA4P</b>							
	12	7520	126.73	64400	1.1	325	2KJ3410- JQ23- L1	-Z -
	13	6670	112.36	63600	1.2	325	2KJ3410- JQ23- K1	-Z -
	15	5880	99.18	62600	1.4	325	2KJ3410- JQ23- J1	-Z -
	17	5170	87.20	61500	1.5	325	2KJ3410- JQ23- H1	-Z -
	19	4680	78.98	60500	1.7	325	2KJ3410- JQ23- G1	-Z -
	22	4080	68.76	59100	2	325	2KJ3410- JQ23- F1	-Z -
	26	3340	56.37	56900	2.4	325	2KJ3410- JQ23- E1	-Z -
	<b>FD.129-LE160MPA4P</b>							
	15	5910	99.58	36100	0.82	239	2KJ3408- JQ23- E1	-Z -
	17	5180	87.25	36800	0.94	239	2KJ3408- JQ23- D1	-Z -
	19	4510	76.04	37500	1.1	239	2KJ3408- JQ23- C1	-Z -
	21	4120	69.40	37500	1.2	239	2KJ3408- JQ23- B1	-Z -
	25	3540	59.75	37500	1.4	239	2KJ3408- JQ23- A1	-Z -
	<b>FZ.129-LE160MPA4P</b>							
	21	4100	69.20	37500	1.2	234	2KJ3308- JQ23- A2	-Z -
	25	3510	59.22	37500	1.4	234	2KJ3308- JQ23- X1	-Z -
	27	3300	55.74	37500	1.5	234	2KJ3308- JQ23- W1	-Z -
	28	3100	52.25	37500	1.6	234	2KJ3308- JQ23- V1	-Z -
	32	2750	46.32	37500	1.8	234	2KJ3308- JQ23- U1	-Z -
	36	2440	41.14	37500	2	234	2KJ3308- JQ23- T1	-Z -
	40	2200	37.12	37500	2.2	234	2KJ3308- JQ23- S1	-Z -
	45	1950	32.90	37500	2.5	234	2KJ3308- JQ23- R1	-Z -
	51	1720	29.13	37000	2.8	234	2KJ3308- JQ23- Q1	-Z -
	<b>FD.109-LE160MPA4P</b>							
	23	3830	64.62	25000	0.81	185	2KJ3407- JQ23- B1	-Z -
	27	3280	55.31	25000	0.94	185	2KJ3407- JQ23- A1	-Z -
	<b>FZ.109-LE160MPA4P</b>							
	25	3560	60.12	25000	0.87	182	2KJ3307- JQ23- X1	-Z -
	29	3040	51.27	25000	1	182	2KJ3307- JQ23- W1	-Z -
	31	2860	48.25	25000	1.1	182	2KJ3307- JQ23- V1	-Z -
	33	2650	44.78	25000	1.2	182	2KJ3307- JQ23- U1	-Z -
	37	2350	39.59	25000	1.3	182	2KJ3307- JQ23- T1	-Z -
	42	2090	35.34	25000	1.5	182	2KJ3307- JQ23- S1	-Z -
	47	1880	31.80	25000	1.6	182	2KJ3307- JQ23- R1	-Z -
	54	1630	27.60	25000	1.9	182	2KJ3307- JQ23- Q1	-Z -
	60	1470	24.82	25000	2.1	182	2KJ3307- JQ23- P1	-Z -
	68	1280	21.70	25000	2.4	182	2KJ3307- JQ23- N1	-Z -
	76	1140	19.36	25000	2.7	182	2KJ3307- JQ23- M1	-Z -
	87	1010	17.06	24500	3.1	182	2KJ3307- JQ23- L1	-Z -
	99	885	14.95	23900	3.5	182	2KJ3307- JQ23- K1	-Z -
	164	535	9.02	21200	3.9	182	2KJ3307- JQ23- F1	-Z -
	186	470	7.94	20600	4.2	182	2KJ3307- JQ23- E1	-Z -
	<b>FZ.89-LE160MPA4P</b>							
	41	2130	35.91	17400	0.87	145	2KJ3306- JQ23- U1	-Z -
	44	2000	33.80	17400	0.92	145	2KJ3306- JQ23- T1	-Z -
	47	1850	31.21	17400	1	145	2KJ3306- JQ23- S1	-Z -
	53	1640	27.77	17400	1.1	145	2KJ3306- JQ23- R1	-Z -
	60	1460	24.67	17400	1.3	145	2KJ3306- JQ23- Q1	-Z -
	67	1310	22.08	17400	1.4	145	2KJ3306- JQ23- P1	-Z -
	78	1120	18.88	17400	1.7	145	2KJ3306- JQ23- N1	-Z -
	88	1000	16.86	17400	1.8	145	2KJ3306- JQ23- M1	-Z -
	99	885	14.90	17400	2.1	145	2KJ3306- JQ23- L1	-Z -
	113	775	13.07	17400	2.4	145	2KJ3306- JQ23- K1	-Z -
	130	675	11.38	17400	2.7	145	2KJ3306- JQ23- J1	-Z -
	152	575	9.73	17400	3.2	145	2KJ3306- JQ23- H1	-Z -
	178	495	8.33	17300	3.5	145	2KJ3306- JQ23- G1	-Z -
	195	450	7.60	16900	2.4	145	2KJ3306- JQ23- F1	-Z -
	220	395	6.72	16400	2.8	145	2KJ3306- JQ23- E1	-Z -
	251	350	5.90	15900	3.2	145	2KJ3306- JQ23- D1	-Z -
	288	305	5.13	15400	3.6	145	2KJ3306- JQ23- C1	-Z -

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
9.2	<b>FZ.89-LE160MPA4P</b>							
	337	260	4.39	14800	4.1	145	2KJ3306- JQ23- B1 -Z -	
	394	220	3.76	14300	4.4	145	2KJ3306- JQ23- A1 -Z -	
	<b>FZ.79-LE160MPA4P</b>							
	71	1240	20.90	12200	0.81	114	2KJ3305- JQ23- N1 -Z -	
	79	1110	18.71	12300	0.9	114	2KJ3305- JQ23- M1 -Z -	
	90	970	16.36	12300	1	114	2KJ3305- JQ23- L1 -Z -	
	105	830	14.04	12200	1.2	114	2KJ3305- JQ23- K1 -Z -	
	119	735	12.41	12100	1.4	114	2KJ3305- JQ23- J1 -Z -	
	140	625	10.56	12000	1.6	114	2KJ3305- JQ23- H1 -Z -	
	164	535	9.05	11700	1.9	114	2KJ3305- JQ23- G1 -Z -	
	174	505	8.51	11500	1.4	114	2KJ3305- JQ23- F1 -Z -	
	199	440	7.44	11300	1.6	114	2KJ3305- JQ23- E1 -Z -	
	232	375	6.39	11000	1.9	114	2KJ3305- JQ23- D1 -Z -	
	262	335	5.64	10700	2.1	114	2KJ3305- JQ23- C1 -Z -	
	308	285	4.80	10400	2.3	114	2KJ3305- JQ23- B1 -Z -	
	360	240	4.11	10100	2.5	114	2KJ3305- JQ23- A1 -Z -	
11	<b>FD.189-LE160MPB4P</b>							
	4.7	22100	310.76	110800	0.86	676	2KJ3412- JR23- S1 -Z -	
	5.3	19900	280.27	110900	0.95	676	2KJ3412- JR23- R1 -Z -	
	6	17600	247.71	110900	1.1	676	2KJ3412- JR23- Q1 -Z -	
	6.5	16100	226.42	110900	1.2	676	2KJ3412- JR23- P1 -Z -	
	7.2	14500	203.69	110900	1.3	676	2KJ3412- JR23- N1 -Z -	
	8.1	12900	182.03	110900	1.5	676	2KJ3412- JR23- M1 -Z -	
	9	11700	164.61	110900	1.6	676	2KJ3412- JR23- L1 -Z -	
	10	10300	145.28	110900	1.8	676	2KJ3412- JR23- K1 -Z -	
	11	9210	129.45	110900	2.1	676	2KJ3412- JR23- J1 -Z -	
	<b>FD.169-LE160MPB4P</b>							
	6.8	15500	217.70	73500	0.88	464	2KJ3411- JR23- Q1 -Z -	
	7.5	14000	197.27	73500	0.97	464	2KJ3411- JR23- P1 -Z -	
	8.4	12500	175.69	73500	1.1	464	2KJ3411- JR23- N1 -Z -	
	9.3	11200	157.76	73500	1.2	464	2KJ3411- JR23- M1 -Z -	
	10	10000	140.77	73500	1.4	464	2KJ3411- JR23- L1 -Z -	
	12	8930	125.49	73500	1.5	464	2KJ3411- JR23- K1 -Z -	
13	7920	111.30	73500	1.7	464	2KJ3411- JR23- J1 -Z -		
14	7270	102.18	73500	1.9	464	2KJ3411- JR23- H1 -Z -		
16	6410	90.03	73500	2.1	464	2KJ3411- JR23- G1 -Z -		
<b>FD.149-LE160MPB4P</b>								
12	9020	126.73	60700	0.89	317	2KJ3410- JR23- L1 -Z -		
13	8000	112.36	60300	1	317	2KJ3410- JR23- K1 -Z -		
15	7060	99.18	59700	1.1	317	2KJ3410- JR23- J1 -Z -		
17	6210	87.20	58900	1.3	317	2KJ3410- JR23- H1 -Z -		
19	5620	78.98	58200	1.4	317	2KJ3410- JR23- G1 -Z -		
21	4890	68.76	57100	1.6	317	2KJ3410- JR23- F1 -Z -		
26	4010	56.37	55300	2	317	2KJ3410- JR23- E1 -Z -		
29	3560	50.01	54100	2.2	317	2KJ3410- JR23- D1 -Z -		
33	3220	45.30	53100	2.5	317	2KJ3410- JR23- C1 -Z -		
<b>FZ.149-LE160MPB4P</b>								
30	3450	48.48	53800	2.3	311	2KJ3310- JR23- T1 -Z -		
34	3120	43.89	52800	2.6	311	2KJ3310- JR23- S1 -Z -		
<b>FD.129-LE160MPB4P</b>								
19	5410	76.04	36600	0.9	231	2KJ3408- JR23- C1 -Z -		
21	4940	69.40	37100	0.98	231	2KJ3408- JR23- B1 -Z -		
25	4250	59.75	37500	1.1	231	2KJ3408- JR23- A1 -Z -		
<b>FZ.129-LE160MPB4P</b>								
21	4920	69.20	37100	0.98	226	2KJ3308- JR23- A2 -Z -		
25	4210	59.22	37500	1.1	226	2KJ3308- JR23- X1 -Z -		
26	3970	55.74	37500	1.2	226	2KJ3308- JR23- W1 -Z -		
28	3720	52.25	37500	1.3	226	2KJ3308- JR23- V1 -Z -		
32	3290	46.32	37500	1.5	226	2KJ3308- JR23- U1 -Z -		
36	2930	41.14	37500	1.7	226	2KJ3308- JR23- T1 -Z -		

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Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
11	<b>FZ.129-LE160MPB4P</b>							
	40	2640	37.12	37500	1.8	226	2KJ3308- JR23- S1	-Z -
	45	2340	32.90	36900	2.1	226	2KJ3308- JR23- R1	-Z -
	51	2070	29.13	36100	2.3	226	2KJ3308- JR23- Q1	-Z -
	57	1840	25.93	35300	2.6	226	2KJ3308- JR23- P1	-Z -
	63	1650	23.23	34500	2.9	226	2KJ3308- JR23- N1	-Z -
	<b>FZ.109-LE160MPB4P</b>							
	29	3650	51.27	25000	0.85	174	2KJ3307- JR23- W1	-Z -
	31	3430	48.25	25000	0.9	174	2KJ3307- JR23- V1	-Z -
	33	3180	44.78	25000	0.97	174	2KJ3307- JR23- U1	-Z -
	37	2820	39.59	25000	1.1	174	2KJ3307- JR23- T1	-Z -
	<b>FZ.109-LE160MPB4P</b>							
	42	2510	35.34	25000	1.2	174	2KJ3307- JR23- S1	-Z -
	46	2260	31.80	25000	1.4	174	2KJ3307- JR23- R1	-Z -
	53	1960	27.60	25000	1.6	174	2KJ3307- JR23- Q1	-Z -
	59	1760	24.82	25000	1.8	174	2KJ3307- JR23- P1	-Z -
	68	1540	21.70	24900	2	174	2KJ3307- JR23- N1	-Z -
	76	1370	19.36	24500	2.2	174	2KJ3307- JR23- M1	-Z -
	86	1210	17.06	23900	2.6	174	2KJ3307- JR23- L1	-Z -
	99	1060	14.95	23300	2.9	174	2KJ3307- JR23- K1	-Z -
	113	925	13.03	22700	3.3	174	2KJ3307- JR23- J1	-Z -
	124	845	11.89	22200	3.6	174	2KJ3307- JR23- H1	-Z -
	164	640	9.02	20900	3.3	174	2KJ3307- JR23- F1	-Z -
	186	565	7.94	20300	3.5	174	2KJ3307- JR23- E1	-Z -
	212	495	6.96	19600	3.8	174	2KJ3307- JR23- D1	-Z -
	243	430	6.07	19000	4.2	174	2KJ3307- JR23- C1	-Z -
	266	395	5.54	18500	4.4	174	2KJ3307- JR23- B1	-Z -
	309	340	4.77	17900	4.8	174	2KJ3307- JR23- A1	-Z -
	<b>FZ.89-LE160MPB4P</b>							
	47	2220	31.21	17400	0.83	137	2KJ3306- JR23- S1	-Z -
	53	1970	27.77	17400	0.94	137	2KJ3306- JR23- R1	-Z -
	60	1750	24.67	17400	1.1	137	2KJ3306- JR23- Q1	-Z -
	67	1570	22.08	17400	1.2	137	2KJ3306- JR23- P1	-Z -
	78	1340	18.88	17400	1.4	137	2KJ3306- JR23- N1	-Z -
	87	1200	16.86	17400	1.5	137	2KJ3306- JR23- M1	-Z -
	99	1060	14.90	17400	1.7	137	2KJ3306- JR23- L1	-Z -
	113	930	13.07	17400	2	137	2KJ3306- JR23- K1	-Z -
	130	810	11.38	17400	2.3	137	2KJ3306- JR23- J1	-Z -
	152	690	9.73	17400	2.7	137	2KJ3306- JR23- H1	-Z -
177	590	8.33	16900	2.9	137	2KJ3306- JR23- G1	-Z -	
194	540	7.60	16500	2	137	2KJ3306- JR23- F1	-Z -	
219	475	6.72	16100	2.3	137	2KJ3306- JR23- E1	-Z -	
250	420	5.90	15600	2.6	137	2KJ3306- JR23- D1	-Z -	
288	365	5.13	15100	3	137	2KJ3306- JR23- C1	-Z -	
336	310	4.39	14600	3.4	137	2KJ3306- JR23- B1	-Z -	
392	265	3.76	14100	3.7	137	2KJ3306- JR23- A1	-Z -	
<b>FZ.79-LE160MPB4P</b>								
90	1160	16.36	11300	0.86	106	2KJ3305- JR23- L1	-Z -	
105	1000	14.04	11400	1	106	2KJ3305- JR23- K1	-Z -	
119	880	12.41	11400	1.1	106	2KJ3305- JR23- J1	-Z -	
140	750	10.56	11300	1.3	106	2KJ3305- JR23- H1	-Z -	
163	645	9.05	11200	1.6	106	2KJ3305- JR23- G1	-Z -	
173	605	8.51	10900	1.2	106	2KJ3305- JR23- F1	-Z -	
198	530	7.44	10800	1.4	106	2KJ3305- JR23- E1	-Z -	
231	455	6.39	10600	1.6	106	2KJ3305- JR23- D1	-Z -	
262	400	5.64	10400	1.7	106	2KJ3305- JR23- C1	-Z -	
307	340	4.80	10100	1.9	106	2KJ3305- JR23- B1	-Z -	
359	290	4.11	9910	2.1	106	2KJ3305- JR23- A1	-Z -	

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
15	<b>FD.189-LE160ZLL4P</b>							
	6.5	21900	226.42	110900	0.86	701	2KJ3412- JU23- P1	-Z -
	7.2	19700	203.69	110900	0.96	701	2KJ3412- JU23- N1	-Z -
	8.1	17600	182.03	110900	1.1	701	2KJ3412- JU23- M1	-Z -
	9	15900	164.61	110900	1.2	701	2KJ3412- JU23- L1	-Z -
	10	14100	145.28	110900	1.3	701	2KJ3412- JU23- K1	-Z -
	11	12500	129.45	110900	1.5	701	2KJ3412- JU23- J1	-Z -
	13	11300	117.27	110900	1.7	701	2KJ3412- JU23- H1	-Z -
	14	10200	105.48	110900	1.9	701	2KJ3412- JU23- G1	-Z -
	17	8510	87.65	110900	2.2	701	2KJ3412- JU23- F1	-Z -
	<b>FD.169-LE160ZLL4P</b>							
	8.4	17000	175.69	73500	0.8	489	2KJ3411- JU23- N1	-Z -
	9.3	15300	157.76	73500	0.89	489	2KJ3411- JU23- M1	-Z -
	10	13600	140.77	73500	0.99	489	2KJ3411- JU23- L1	-Z -
	12	12100	125.49	73500	1.1	489	2KJ3411- JU23- K1	-Z -
	13	10800	111.30	73500	1.3	489	2KJ3411- JU23- J1	-Z -
	14	9920	102.18	73500	1.4	489	2KJ3411- JU23- H1	-Z -
16	8740	90.03	73500	1.6	489	2KJ3411- JU23- G1	-Z -	
20	7170	73.85	73500	1.9	489	2KJ3411- JU23- F1	-Z -	
23	6280	64.75	73500	2.2	489	2KJ3411- JU23- E1	-Z -	
<b>FD.149-LE160ZLL4P</b>								
15	9630	99.18	53300	0.83	342	2KJ3410- JU23- J1	-Z -	
17	8460	87.20	53300	0.94	342	2KJ3410- JU23- H1	-Z -	
19	7670	78.98	53100	1	342	2KJ3410- JU23- G1	-Z -	
21	6670	68.76	52700	1.2	342	2KJ3410- JU23- F1	-Z -	
26	5470	56.37	51600	1.5	342	2KJ3410- JU23- E1	-Z -	
29	4850	50.01	50900	1.6	342	2KJ3410- JU23- D1	-Z -	
33	4390	45.30	50200	1.8	342	2KJ3410- JU23- C1	-Z -	
37	3820	39.43	49100	2.1	342	2KJ3410- JU23- B1	-Z -	
46	3140	32.33	47400	2.4	342	2KJ3410- JU23- A1	-Z -	
<b>FZ.149-LE160ZLL4P</b>								
30	4700	48.48	50700	1.7	336	2KJ3310- JU23- T1	-Z -	
34	4260	43.89	49900	1.9	336	2KJ3310- JU23- S1	-Z -	
38	3740	38.55	48900	2.1	336	2KJ3310- JU23- R1	-Z -	
42	3390	34.93	48100	2.4	336	2KJ3310- JU23- Q1	-Z -	
47	3020	31.11	47100	2.6	336	2KJ3310- JU23- P1	-Z -	
53	2710	27.94	46100	2.9	336	2KJ3310- JU23- N1	-Z -	
<b>FD.129-LE160ZLL4P</b>								
25	5800	59.75	35800	0.84	256	2KJ3408- JU23- A1	-Z -	
<b>FZ.129-LE160ZLL4P</b>								
25	5750	59.22	35800	0.84	251	2KJ3308- JU23- X1	-Z -	
26	5410	55.74	35800	0.9	251	2KJ3308- JU23- W1	-Z -	
28	5070	52.25	35800	0.96	251	2KJ3308- JU23- V1	-Z -	
32	4490	46.32	35600	1.1	251	2KJ3308- JU23- U1	-Z -	
36	3990	41.14	35300	1.2	251	2KJ3308- JU23- T1	-Z -	
40	3600	37.12	35000	1.3	251	2KJ3308- JU23- S1	-Z -	
45	3190	32.90	34600	1.5	251	2KJ3308- JU23- R1	-Z -	
51	2820	29.13	34000	1.7	251	2KJ3308- JU23- Q1	-Z -	
57	2510	25.93	33400	1.9	251	2KJ3308- JU23- P1	-Z -	
63	2250	23.23	32900	2.1	251	2KJ3308- JU23- N1	-Z -	
72	2000	20.60	32200	2.4	251	2KJ3308- JU23- M1	-Z -	
81	1760	18.18	31500	2.7	251	2KJ3308- JU23- L1	-Z -	
92	1550	15.99	30700	3.1	251	2KJ3308- JU23- K1	-Z -	
102	1400	14.48	30000	3.3	251	2KJ3308- JU23- J1	-Z -	
117	1220	12.61	29200	3.7	251	2KJ3308- JU23- H1	-Z -	
151	950	9.80	27300	3.8	251	2KJ3308- JU23- F1	-Z -	
<b>FZ.109-LE160ZLL4P</b>								
37	3840	39.59	23300	0.81	199	2KJ3307- JU23- T1	-Z -	
42	3430	35.34	23400	0.9	199	2KJ3307- JU23- S1	-Z -	
46	3080	31.80	23500	1	199	2KJ3307- JU23- R1	-Z -	
53	2680	27.60	23400	1.2	199	2KJ3307- JU23- Q1	-Z -	

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	No. of poles		
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)				
15	<b>FZ.109-LE160ZLL4P</b>										
	59	2410	24.82	23300	1.3	199	2KJ3307- JU23- P1	-Z -			
	68	2100	21.70	23100	1.5	199	2KJ3307- JU23- N1	-Z -			
	76	1880	19.36	22800	1.6	199	2KJ3307- JU23- M1	-Z -			
	86	1650	17.06	22500	1.9	199	2KJ3307- JU23- L1	-Z -			
	99	1450	14.95	22000	2.1	199	2KJ3307- JU23- K1	-Z -			
	113	1260	13.03	21600	2.4	199	2KJ3307- JU23- J1	-Z -			
	124	1150	11.89	21200	2.6	199	2KJ3307- JU23- H1	-Z -			
	144	990	10.23	20700	2.9	199	2KJ3307- JU23- G1	-Z -			
	164	875	9.02	20100	2.4	199	2KJ3307- JU23- F1	-Z -			
	186	770	7.94	19600	2.6	199	2KJ3307- JU23- E1	-Z -			
	212	675	6.96	19000	2.8	199	2KJ3307- JU23- D1	-Z -			
	243	590	6.07	18400	3.1	199	2KJ3307- JU23- C1	-Z -			
	266	535	5.54	18100	3.2	199	2KJ3307- JU23- B1	-Z -			
	309	460	4.77	17500	3.5	199	2KJ3307- JU23- A1	-Z -			
	15	<b>FZ.89-LE160ZLL4P</b>									
		67	2140	22.08	17100	0.86	162	2KJ3306- JU23- P1	-Z -		
		78	1830	18.88	17200	1	162	2KJ3306- JU23- N1	-Z -		
		87	1630	16.86	17200	1.1	162	2KJ3306- JU23- M1	-Z -		
		99	1440	14.90	17100	1.3	162	2KJ3306- JU23- L1	-Z -		
		113	1260	13.07	17000	1.5	162	2KJ3306- JU23- K1	-Z -		
		130	1100	11.38	16700	1.7	162	2KJ3306- JU23- J1	-Z -		
		152	945	9.73	16400	2	162	2KJ3306- JU23- H1	-Z -		
		177	805	8.33	16000	2.2	162	2KJ3306- JU23- G1	-Z -		
		194	735	7.60	15600	1.5	162	2KJ3306- JU23- F1	-Z -		
		219	650	6.72	15300	1.7	162	2KJ3306- JU23- E1	-Z -		
		250	570	5.90	15000	1.9	162	2KJ3306- JU23- D1	-Z -		
		288	495	5.13	14600	2.2	162	2KJ3306- JU23- C1	-Z -		
		336	425	4.39	14100	2.5	162	2KJ3306- JU23- B1	-Z -		
		392	365	3.76	13600	2.7	162	2KJ3306- JU23- A1	-Z -		
		15	<b>FZ.79-LE160ZLL4P</b>								
			119	1200	12.41	9750	0.83	131	2KJ3305- JU23- J1	-Z -	
			140	1020	10.56	9930	0.98	131	2KJ3305- JU23- H1	-Z -	
	163		875	9.05	10000	1.1	131	2KJ3305- JU23- G1	-Z -		
	173		825	8.51	9720	0.87	131	2KJ3305- JU23- F1	-Z -		
	198		720	7.44	9740	1	131	2KJ3305- JU23- E1	-Z -		
	231		620	6.39	9680	1.2	131	2KJ3305- JU23- D1	-Z -		
	262		545	5.64	9630	1.3	131	2KJ3305- JU23- C1	-Z -		
	307		465	4.80	9470	1.4	131	2KJ3305- JU23- B1	-Z -		
359	395		4.11	9320	1.5	131	2KJ3305- JU23- A1	-Z -			
18.5	<b>FD.189-LES180MQ4P</b>										
	8.1	21800	182.03	110900	0.87	776	2KJ3412- KL33- M1	-Z -			
	8.9	19700	164.61	110900	0.96	776	2KJ3412- KL33- L1	-Z -			
	10	17400	145.28	110900	1.1	776	2KJ3412- KL33- K1	-Z -			
	11	15500	129.45	110900	1.2	776	2KJ3412- KL33- J1	-Z -			
	13	14000	117.27	110900	1.3	776	2KJ3412- KL33- H1	-Z -			
	14	12600	105.48	110900	1.5	776	2KJ3412- KL33- G1	-Z -			
	17	10500	87.65	110900	1.8	776	2KJ3412- KL33- F1	-Z -			
	19	9360	77.92	110900	2	776	2KJ3412- KL33- E1	-Z -			
	18.5	<b>FD.169-LES180MQ4P</b>									
		10	16900	140.77	73500	0.8	558	2KJ3411- KL33- L1	-Z -		
		12	15000	125.49	73500	0.9	558	2KJ3411- KL33- K1	-Z -		
		13	13300	111.30	73500	1	558	2KJ3411- KL33- J1	-Z -		
		14	12200	102.18	73500	1.1	558	2KJ3411- KL33- H1	-Z -		
		16	10800	90.03	73500	1.3	558	2KJ3411- KL33- G1	-Z -		
		20	8870	73.85	73500	1.5	558	2KJ3411- KL33- F1	-Z -		
		23	7780	64.75	73500	1.7	558	2KJ3411- KL33- E1	-Z -		
		29	6080	50.63	73500	2.2	558	2KJ3411- KL33- D1	-Z -		
		32	5590	46.55	73500	2.4	558	2KJ3411- KL33- C1	-Z -		
	18.5	<b>FD.149-LES180MQ4P</b>									
19	9490	78.98	48600	0.84	417	2KJ3410- KL33- G1	-Z -				

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
18.5	<b>FD.149-LES180MQ4P</b>							
	21	8260	68.76	48700	0.97	417	2KJ3410- KL33- F1	-Z -
	26	6770	56.37	48500	1.2	417	2KJ3410- KL33- E1	-Z -
	29	6010	50.01	48100	1.3	417	2KJ3410- KL33- D1	-Z -
	32	5440	45.30	47600	1.5	417	2KJ3410- KL33- C1	-Z -
	37	4730	39.43	46900	1.7	417	2KJ3410- KL33- B1	-Z -
	45	3880	32.33	45600	1.9	417	2KJ3410- KL33- A1	-Z -
	<b>FZ.149-LES180MQ4P</b>							
	42	4190	34.93	46200	1.9	416	2KJ3310- KL33- Q1	-Z -
	47	3730	31.11	45400	2.1	416	2KJ3310- KL33- P1	-Z -
53	3350	27.94	44600	2.4	416	2KJ3310- KL33- N1	-Z -	
59	2990	24.93	43700	2.7	416	2KJ3310- KL33- M1	-Z -	
66	2670	22.22	42800	3	416	2KJ3310- KL33- L1	-Z -	
4	<b>FZ.129-LES180MQ4P</b>							
	50	3500	29.13	32200	1.4	328	2KJ3308- KL33- Q1	-Z -
	57	3110	25.93	31800	1.6	328	2KJ3308- KL33- P1	-Z -
	63	2790	23.23	31400	1.7	328	2KJ3308- KL33- N1	-Z -
	71	2470	20.60	30900	2	328	2KJ3308- KL33- M1	-Z -
	81	2180	18.18	30300	2.2	328	2KJ3308- KL33- L1	-Z -
	92	1920	15.99	29700	2.5	328	2KJ3308- KL33- K1	-Z -
	102	1740	14.48	29100	2.7	328	2KJ3308- KL33- J1	-Z -
	117	1510	12.61	28400	3	328	2KJ3308- KL33- H1	-Z -
	142	1240	10.34	27300	3.5	328	2KJ3308- KL33- G1	-Z -
	150	1170	9.80	26700	3.1	328	2KJ3308- KL33- F1	-Z -
	170	1040	8.65	26000	3.5	328	2KJ3308- KL33- E1	-Z -
	193	910	7.60	25200	4	328	2KJ3308- KL33- D1	-Z -
	213	825	6.89	24700	4.4	328	2KJ3308- KL33- C1	-Z -
	<b>FZ.109-LES180MQ4P</b>							
	59	2980	24.82	21500	1	277	2KJ3307- KL33- P1	-Z -
	68	2600	21.70	21500	1.2	277	2KJ3307- KL33- N1	-Z -
	76	2320	19.36	21400	1.3	277	2KJ3307- KL33- M1	-Z -
	86	2050	17.06	21200	1.5	277	2KJ3307- KL33- L1	-Z -
98	1790	14.95	20900	1.7	277	2KJ3307- KL33- K1	-Z -	
113	1560	13.03	20600	2	277	2KJ3307- KL33- J1	-Z -	
124	1420	11.89	20400	2.1	277	2KJ3307- KL33- H1	-Z -	
144	1230	10.23	19900	2.3	277	2KJ3307- KL33- G1	-Z -	
163	1080	9.02	19400	1.9	277	2KJ3307- KL33- F1	-Z -	
185	950	7.94	19000	2.1	277	2KJ3307- KL33- E1	-Z -	
211	835	6.96	18500	2.3	277	2KJ3307- KL33- D1	-Z -	
242	730	6.07	18000	2.5	277	2KJ3307- KL33- C1	-Z -	
265	665	5.54	17700	2.6	277	2KJ3307- KL33- B1	-Z -	
308	570	4.77	17100	2.8	277	2KJ3307- KL33- A1	-Z -	
<b>FZ.89-LES180MQ4P</b>								
87	2020	16.86	15600	0.91	238	2KJ3306- KL33- M1	-Z -	
99	1790	14.90	15700	1	238	2KJ3306- KL33- L1	-Z -	
112	1570	13.07	15700	1.2	238	2KJ3306- KL33- K1	-Z -	
129	1360	11.38	15700	1.4	238	2KJ3306- KL33- J1	-Z -	
151	1160	9.73	15500	1.6	238	2KJ3306- KL33- H1	-Z -	
176	1000	8.33	15200	1.7	238	2KJ3306- KL33- G1	-Z -	
193	910	7.60	14900	1.2	238	2KJ3306- KL33- F1	-Z -	
219	805	6.72	14600	1.4	238	2KJ3306- KL33- E1	-Z -	
249	705	5.90	14400	1.6	238	2KJ3306- KL33- D1	-Z -	
287	615	5.13	14100	1.8	238	2KJ3306- KL33- C1	-Z -	
335	525	4.39	13700	2	238	2KJ3306- KL33- B1	-Z -	
391	450	3.76	13300	2.2	238	2KJ3306- KL33- A1	-Z -	
22	<b>FD.189-LES180ZLN4P</b>							
	8.9	23500	164.61	110000	0.81	781	2KJ3412- KN33- L1	-Z -
	10	20700	145.28	110900	0.92	781	2KJ3412- KN33- K1	-Z -
	11	18500	129.45	110900	1	781	2KJ3412- KN33- J1	-Z -
	13	16700	117.27	110900	1.1	781	2KJ3412- KN33- H1	-Z -
14	15000	105.48	110900	1.3	781	2KJ3412- KN33- G1	-Z -	

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
22	<b>FD.189-LES180ZLN4P</b>							
	17	12500	87.65	110900	1.5	781	2KJ3412- ■ KN33- ■ ■ F1 -Z -	
	19	11100	77.92	110900	1.7	781	2KJ3412- ■ KN33- ■ ■ E1 -Z -	
	24	8870	62.11	110900	2.1	781	2KJ3412- ■ KN33- ■ ■ D1 -Z -	
	<b>FD.169-LES180ZLN4P</b>							
	13	15900	111.30	73500	0.85	563	2KJ3411- ■ KN33- ■ ■ J1 -Z -	
	14	14600	102.18	73500	0.93	563	2KJ3411- ■ KN33- ■ ■ H1 -Z -	
	16	12800	90.03	73500	1.1	563	2KJ3411- ■ KN33- ■ ■ G1 -Z -	
	20	10500	73.85	73500	1.3	563	2KJ3411- ■ KN33- ■ ■ F1 -Z -	
	23	9250	64.75	73500	1.5	563	2KJ3411- ■ KN33- ■ ■ E1 -Z -	
	29	7230	50.63	73500	1.9	563	2KJ3411- ■ KN33- ■ ■ D1 -Z -	
	32	6650	46.55	72600	2	563	2KJ3411- ■ KN33- ■ ■ C1 -Z -	
	36	5830	40.82	71000	2.3	563	2KJ3411- ■ KN33- ■ ■ B1 -Z -	
	<b>FZ.169-LES180ZLN4P</b>							
	36	5870	41.07	71100	2.3	555	2KJ3311- ■ KN33- ■ ■ R1 -Z -	
	40	5280	36.94	69700	2.6	555	2KJ3311- ■ KN33- ■ ■ Q1 -Z -	
	<b>FD.149-LES180ZLN4P</b>							
	21	9820	68.76	44800	0.81	422	2KJ3410- ■ KN33- ■ ■ F1 -Z -	
	26	8050	56.37	45300	0.99	422	2KJ3410- ■ KN33- ■ ■ E1 -Z -	
	29	7140	50.01	45200	1.1	422	2KJ3410- ■ KN33- ■ ■ D1 -Z -	
	32	6470	45.30	45100	1.2	422	2KJ3410- ■ KN33- ■ ■ C1 -Z -	
	37	5630	39.43	44700	1.4	422	2KJ3410- ■ KN33- ■ ■ B1 -Z -	
45	4620	32.33	43800	1.6	422	2KJ3410- ■ KN33- ■ ■ A1 -Z -		
<b>FZ.149-LES180ZLN4P</b>								
42	4990	34.93	44200	1.6	421	2KJ3310- ■ KN33- ■ ■ Q1 -Z -		
47	4440	31.11	43600	1.8	421	2KJ3310- ■ KN33- ■ ■ P1 -Z -		
53	3990	27.94	43000	2	421	2KJ3310- ■ KN33- ■ ■ N1 -Z -		
59	3560	24.93	42300	2.2	421	2KJ3310- ■ KN33- ■ ■ M1 -Z -		
66	3170	22.22	41500	2.5	421	2KJ3310- ■ KN33- ■ ■ L1 -Z -		
75	2810	19.71	40700	2.8	421	2KJ3310- ■ KN33- ■ ■ K1 -Z -		
81	2580	18.10	40000	3.1	421	2KJ3310- ■ KN33- ■ ■ J1 -Z -		
<b>FZ.129-LES180ZLN4P</b>								
50	4160	29.13	30300	1.2	333	2KJ3308- ■ KN33- ■ ■ Q1 -Z -		
57	3700	25.93	30200	1.3	333	2KJ3308- ■ KN33- ■ ■ P1 -Z -		
63	3320	23.23	29900	1.5	333	2KJ3308- ■ KN33- ■ ■ N1 -Z -		
71	2940	20.60	29600	1.6	333	2KJ3308- ■ KN33- ■ ■ M1 -Z -		
81	2590	18.18	29200	1.9	333	2KJ3308- ■ KN33- ■ ■ L1 -Z -		
92	2280	15.99	28700	2.1	333	2KJ3308- ■ KN33- ■ ■ K1 -Z -		
102	2070	14.48	28200	2.3	333	2KJ3308- ■ KN33- ■ ■ J1 -Z -		
117	1800	12.61	27600	2.5	333	2KJ3308- ■ KN33- ■ ■ H1 -Z -		
142	1470	10.34	26600	2.9	333	2KJ3308- ■ KN33- ■ ■ G1 -Z -		
150	1400	9.80	26000	2.6	333	2KJ3308- ■ KN33- ■ ■ F1 -Z -		
170	1230	8.65	25400	2.9	333	2KJ3308- ■ KN33- ■ ■ E1 -Z -		
193	1080	7.60	24700	3.3	333	2KJ3308- ■ KN33- ■ ■ D1 -Z -		
213	985	6.89	24200	3.7	333	2KJ3308- ■ KN33- ■ ■ C1 -Z -		
245	855	6.00	23500	4.2	333	2KJ3308- ■ KN33- ■ ■ B1 -Z -		
299	700	4.92	22400	4.3	333	2KJ3308- ■ KN33- ■ ■ A1 -Z -		
<b>FZ.109-LES180ZLN4P</b>								
59	3540	24.82	19600	0.87	282	2KJ3307- ■ KN33- ■ ■ P1 -Z -		
68	3100	21.70	19800	1	282	2KJ3307- ■ KN33- ■ ■ N1 -Z -		
76	2760	19.36	19900	1.1	282	2KJ3307- ■ KN33- ■ ■ M1 -Z -		
86	2430	17.06	19900	1.3	282	2KJ3307- ■ KN33- ■ ■ L1 -Z -		
98	2130	14.95	19800	1.5	282	2KJ3307- ■ KN33- ■ ■ K1 -Z -		
113	1860	13.03	19600	1.7	282	2KJ3307- ■ KN33- ■ ■ J1 -Z -		
124	1690	11.89	19500	1.8	282	2KJ3307- ■ KN33- ■ ■ H1 -Z -		
144	1460	10.23	19100	2	282	2KJ3307- ■ KN33- ■ ■ G1 -Z -		
163	1280	9.02	18700	1.6	282	2KJ3307- ■ KN33- ■ ■ F1 -Z -		
185	1130	7.94	18400	1.8	282	2KJ3307- ■ KN33- ■ ■ E1 -Z -		
211	995	6.96	18000	1.9	282	2KJ3307- ■ KN33- ■ ■ D1 -Z -		
242	865	6.07	17500	2.1	282	2KJ3307- ■ KN33- ■ ■ C1 -Z -		
265	790	5.54	17200	2.2	282	2KJ3307- ■ KN33- ■ ■ B1 -Z -		
308	680	4.77	16700	2.4	282	2KJ3307- ■ KN33- ■ ■ A1 -Z -		

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
22	<b>FZ.89-LES180ZLN4P</b>							
	99	2130	14.90	14300	0.87	243	2KJ3306- ■ KN33- ■ ■ L1 -Z -	
	112	1860	13.07	14500	0.99	243	2KJ3306- ■ KN33- ■ ■ K1 -Z -	
	129	1620	11.38	14600	1.1	243	2KJ3306- ■ KN33- ■ ■ J1 -Z -	
	151	1390	9.73	14600	1.3	243	2KJ3306- ■ KN33- ■ ■ H1 -Z -	
	176	1190	8.33	14500	1.5	243	2KJ3306- ■ KN33- ■ ■ G1 -Z -	
	193	1080	7.60	14100	1	243	2KJ3306- ■ KN33- ■ ■ F1 -Z -	
	219	960	6.72	14000	1.2	243	2KJ3306- ■ KN33- ■ ■ E1 -Z -	
	249	840	5.90	13800	1.3	243	2KJ3306- ■ KN33- ■ ■ D1 -Z -	
	287	730	5.13	13600	1.5	243	2KJ3306- ■ KN33- ■ ■ C1 -Z -	
	335	625	4.39	13200	1.7	243	2KJ3306- ■ KN33- ■ ■ B1 -Z -	
	391	535	3.76	12900	1.8	243	2KJ3306- ■ KN33- ■ ■ A1 -Z -	
	30	<b>FD.189-LES200ZLU4P</b>						
13		22800	117.27	110400	0.83	851	2KJ3412- ■ LN33- ■ ■ H1 -Z -	
14		20500	105.48	110900	0.92	851	2KJ3412- ■ LN33- ■ ■ G1 -Z -	
17		17000	87.65	110900	1.1	851	2KJ3412- ■ LN33- ■ ■ F1 -Z -	
19		15100	77.92	110200	1.3	851	2KJ3412- ■ LN33- ■ ■ E1 -Z -	
24		12100	62.11	106800	1.6	851	2KJ3412- ■ LN33- ■ ■ D1 -Z -	
30		9630	49.43	102900	2	851	2KJ3412- ■ LN33- ■ ■ C1 -Z -	
36		7910	40.61	99200	2.4	851	2KJ3412- ■ LN33- ■ ■ B1 -Z -	
<b>FZ.189-LES200ZLU4P</b>								
39		7390	37.93	97900	2.6	830	2KJ3312- ■ LN33- ■ ■ L1 -Z -	
<b>FD.169-LES200ZLU4P</b>								
20		14300	73.85	69500	0.94	633	2KJ3411- ■ LN33- ■ ■ F1 -Z -	
23		12600	64.75	69200	1.1	633	2KJ3411- ■ LN33- ■ ■ E1 -Z -	
29		9860	50.63	68100	1.4	633	2KJ3411- ■ LN33- ■ ■ D1 -Z -	
32		9070	46.55	67600	1.5	633	2KJ3411- ■ LN33- ■ ■ C1 -Z -	
36		7950	40.82	66600	1.7	633	2KJ3411- ■ LN33- ■ ■ B1 -Z -	
46		6220	31.92	64300	2.2	633	2KJ3411- ■ LN33- ■ ■ A1 -Z -	
<b>FZ.169-LES200ZLU4P</b>								
40		7200	36.94	65700	1.9	631	2KJ3311- ■ LN33- ■ ■ Q1 -Z -	
45		6430	33.02	64600	2.1	631	2KJ3311- ■ LN33- ■ ■ P1 -Z -	
49		5820	29.86	63600	2.3	631	2KJ3311- ■ LN33- ■ ■ N1 -Z -	
56		5130	26.35	62200	2.6	631	2KJ3311- ■ LN33- ■ ■ M1 -Z -	
63		4570	23.48	60900	3	631	2KJ3311- ■ LN33- ■ ■ L1 -Z -	
<b>FD.149-LES200ZLU4P</b>								
29		9740	50.01	38700	0.82	492	2KJ3410- ■ LN33- ■ ■ D1 -Z -	
32		8820	45.30	39200	0.91	492	2KJ3410- ■ LN33- ■ ■ C1 -Z -	
37		7680	39.43	39500	1	492	2KJ3410- ■ LN33- ■ ■ B1 -Z -	
45		6300	32.33	39600	1.2	492	2KJ3410- ■ LN33- ■ ■ A1 -Z -	
<b>FZ.149-LES200ZLU4P</b>								
47		6060	31.11	39500	1.3	495	2KJ3310- ■ LN33- ■ ■ P1 -Z -	
53		5440	27.94	39400	1.5	495	2KJ3310- ■ LN33- ■ ■ N1 -Z -	
59		4850	24.93	39000	1.6	495	2KJ3310- ■ LN33- ■ ■ M1 -Z -	
66		4330	22.22	38600	1.8	495	2KJ3310- ■ LN33- ■ ■ L1 -Z -	
75		3840	19.71	38100	2.1	495	2KJ3310- ■ LN33- ■ ■ K1 -Z -	
81		3520	18.10	37700	2.3	495	2KJ3310- ■ LN33- ■ ■ J1 -Z -	
92		3100	15.94	37000	2.6	495	2KJ3310- ■ LN33- ■ ■ H1 -Z -	
112		2540	13.08	35800	3	495	2KJ3310- ■ LN33- ■ ■ G1 -Z -	
128		2230	11.47	35000	3.3	495	2KJ3310- ■ LN33- ■ ■ F1 -Z -	
164		1740	8.97	33300	3.9	495	2KJ3310- ■ LN33- ■ ■ E1 -Z -	
182		1570	8.09	32300	3.6	495	2KJ3310- ■ LN33- ■ ■ D1 -Z -	
221		1290	6.64	31000	4.4	495	2KJ3310- ■ LN33- ■ ■ C1 -Z -	
<b>FZ.129-LES200ZLU4P</b>								
57		5050	25.93	26400	0.96	408	2KJ3308- ■ LN33- ■ ■ P1 -Z -	
63	4520	23.23	26600	1.1	408	2KJ3308- ■ LN33- ■ ■ N1 -Z -		
71	4010	20.60	26600	1.2	408	2KJ3308- ■ LN33- ■ ■ M1 -Z -		
81	3540	18.18	26500	1.4	408	2KJ3308- ■ LN33- ■ ■ L1 -Z -		
92	3110	15.99	26300	1.5	408	2KJ3308- ■ LN33- ■ ■ K1 -Z -		
102	2820	14.48	26100	1.7	408	2KJ3308- ■ LN33- ■ ■ J1 -Z -		
117	2450	12.61	25800	1.8	408	2KJ3308- ■ LN33- ■ ■ H1 -Z -		

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles	
30	<b>FZ.129-LES200ZLU4P</b>								
	142	2010	10.34	25100	2.1	408	2KJ3308- LN33- G1	-Z -	
	150	1910	9.80	24400	1.9	408	2KJ3308- LN33- F1	-Z -	
	170	1680	8.65	24000	2.2	408	2KJ3308- LN33- E1	-Z -	
	193	1480	7.60	23500	2.4	408	2KJ3308- LN33- D1	-Z -	
	213	1340	6.89	23100	2.7	408	2KJ3308- LN33- C1	-Z -	
	245	1160	6.00	22600	3.1	408	2KJ3308- LN33- B1	-Z -	
	299	955	4.92	21700	3.2	408	2KJ3308- LN33- A1	-Z -	
	<b>FZ.109-LES200ZLU4P</b>								
	76	3770	19.36	16600	0.82	357	2KJ3307- LN33- M1	-Z -	
	86	3320	17.06	17000	0.93	357	2KJ3307- LN33- L1	-Z -	
	98	2910	14.95	17300	1.1	357	2KJ3307- LN33- K1	-Z -	
	113	2540	13.03	17400	1.2	357	2KJ3307- LN33- J1	-Z -	
	124	2310	11.89	17500	1.3	357	2KJ3307- LN33- H1	-Z -	
	144	1990	10.23	17400	1.4	357	2KJ3307- LN33- G1	-Z -	
	163	1750	9.02	17200	1.2	357	2KJ3307- LN33- F1	-Z -	
	185	1540	7.94	17000	1.3	357	2KJ3307- LN33- E1	-Z -	
	211	1350	6.96	16800	1.4	357	2KJ3307- LN33- D1	-Z -	
	242	1180	6.07	16500	1.5	357	2KJ3307- LN33- C1	-Z -	
	265	1080	5.54	16300	1.6	357	2KJ3307- LN33- B1	-Z -	
	308	930	4.77	15900	1.7	357	2KJ3307- LN33- A1	-Z -	
	37	<b>FD.189-LES225SD4P</b>							
		17	20900	87.65	103900	0.91	901	2KJ3412- MF33- F1	-Z -
		19	18600	77.92	103300	1	901	2KJ3412- MF33- E1	-Z -
		24	14800	62.11	101400	1.3	901	2KJ3412- MF33- D1	-Z -
		30	11800	49.43	98600	1.6	901	2KJ3412- MF33- C1	-Z -
		36	9700	40.61	95600	2	901	2KJ3412- MF33- B1	-Z -
		46	7720	32.32	91800	2.5	901	2KJ3412- MF33- A1	-Z -
		<b>FZ.189-LES225SD4P</b>							
		39	9060	37.93	94500	2.1	873	2KJ3312- MF33- L1	-Z -
43		8130	34.03	92700	2.3	873	2KJ3312- MF33- K1	-Z -	
49		7270	30.41	90800	2.6	873	2KJ3312- MF33- J1	-Z -	
54		6490	27.17	88800	2.9	873	2KJ3312- MF33- H1	-Z -	
<b>FD.169-LES225SD4P</b>									
23		15400	64.75	63200	0.88	689	2KJ3411- MF33- E1	-Z -	
29		12100	50.63	63300	1.1	689	2KJ3411- MF33- D1	-Z -	
32		11100	46.55	63200	1.2	689	2KJ3411- MF33- C1	-Z -	
36		9750	40.82	62700	1.4	689	2KJ3411- MF33- B1	-Z -	
46		7630	31.92	61200	1.8	689	2KJ3411- MF33- A1	-Z -	
<b>FZ.169-LES225SD4P</b>									
45		7890	33.02	61400	1.7	674	2KJ3311- MF33- P1	-Z -	
49		7130	29.86	60700	1.9	674	2KJ3311- MF33- N1	-Z -	
56		6300	26.35	59700	2.2	674	2KJ3311- MF33- M1	-Z -	
63		5610	23.48	58600	2.4	674	2KJ3311- MF33- L1	-Z -	
69		5080	21.27	57700	2.7	674	2KJ3311- MF33- K1	-Z -	
77		4570	19.13	56600	3	674	2KJ3311- MF33- J1	-Z -	
183		1920	8.07	46200	4.3	674	2KJ3311- MF33- D1	-Z -	
<b>FD.149-LES225SD4P</b>									
37		9420	39.43	35100	0.85	545	2KJ3410- MF33- B1	-Z -	
46		7720	32.33	35900	0.97	545	2KJ3410- MF33- A1	-Z -	
<b>FZ.149-LES225SD4P</b>									
53	6680	27.94	36200	1.2	540	2KJ3310- MF33- N1	-Z -		
59	5960	24.93	36200	1.3	540	2KJ3310- MF33- M1	-Z -		
67	5310	22.22	36100	1.5	540	2KJ3310- MF33- L1	-Z -		
75	4710	19.71	35800	1.7	540	2KJ3310- MF33- K1	-Z -		
82	4320	18.10	35600	1.8	540	2KJ3310- MF33- J1	-Z -		
93	3810	15.94	35100	2.1	540	2KJ3310- MF33- H1	-Z -		
113	3120	13.08	34300	2.4	540	2KJ3310- MF33- G1	-Z -		
129	2740	11.47	33600	2.7	540	2KJ3310- MF33- F1	-Z -		
165	2140	8.97	32200	3.2	540	2KJ3310- MF33- E1	-Z -		
183	1930	8.09	31300	2.9	540	2KJ3310- MF33- D1	-Z -		

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles	
37	<b>FZ.149-LES225SD4P</b>								
	223	1580	6.64	30100	3.6	540	2KJ3310- MF33- C1 -Z -		
	254	1390	5.82	29300	4.1	540	2KJ3310- MF33- B1 -Z -		
	<b>FZ.129-LES225SD4P</b>								
	64	5550	23.23	23600	0.87	451	2KJ3308- MF33- N1 -Z -		
	72	4920	20.60	24000	0.98	451	2KJ3308- MF33- M1 -Z -		
	81	4340	18.18	24200	1.1	451	2KJ3308- MF33- L1 -Z -		
	92	3820	15.99	24300	1.3	451	2KJ3308- MF33- K1 -Z -		
	102	3460	14.48	24300	1.4	451	2KJ3308- MF33- J1 -Z -		
	117	3010	12.61	24200	1.5	451	2KJ3308- MF33- H1 -Z -		
	143	2470	10.34	23800	1.7	451	2KJ3308- MF33- G1 -Z -		
	151	2340	9.80	23100	1.5	451	2KJ3308- MF33- F1 -Z -		
	171	2060	8.65	22800	1.8	451	2KJ3308- MF33- E1 -Z -		
	194	1810	7.60	22500	2	451	2KJ3308- MF33- D1 -Z -		
	215	1640	6.89	22200	2.2	451	2KJ3308- MF33- C1 -Z -		
	246	1430	6.00	21700	2.5	451	2KJ3308- MF33- B1 -Z -		
	300	1170	4.92	21000	2.6	451	2KJ3308- MF33- A1 -Z -		
	<b>FZ.109-LES225SD4P</b>								
	99	3570	14.95	15100	0.87	399	2KJ3307- MF33- K1 -Z -		
	113	3110	13.03	15500	1	399	2KJ3307- MF33- J1 -Z -		
	124	2840	11.89	15700	1.1	399	2KJ3307- MF33- H1 -Z -		
	144	2440	10.23	15900	1.2	399	2KJ3307- MF33- G1 -Z -		
	164	2150	9.02	15800	0.97	399	2KJ3307- MF33- F1 -Z -		
	186	1890	7.94	15800	1.1	399	2KJ3307- MF33- E1 -Z -		
	212	1660	6.96	15700	1.1	399	2KJ3307- MF33- D1 -Z -		
	243	1450	6.07	15500	1.2	399	2KJ3307- MF33- C1 -Z -		
	267	1320	5.54	15400	1.3	399	2KJ3307- MF33- B1 -Z -		
	310	1140	4.77	15200	1.4	399	2KJ3307- MF33- A1 -Z -		
	45	<b>FD.189-LES225YMF4P</b>							
		19	22600	77.92	95700	0.84	946	2KJ3412- MT33- E1 -Z -	
		24	18000	62.11	95300	1.1	946	2KJ3412- MT33- D1 -Z -	
		30	14300	49.43	93800	1.3	946	2KJ3412- MT33- C1 -Z -	
		36	11800	40.61	91600	1.6	946	2KJ3412- MT33- B1 -Z -	
		46	9390	32.32	88700	2	946	2KJ3412- MT33- A1 -Z -	
		<b>FZ.189-LES225YMF4P</b>							
		39	11000	37.93	90800	1.7	918	2KJ3312- MT33- L1 -Z -	
		43	9890	34.03	89400	1.9	918	2KJ3312- MT33- K1 -Z -	
49		8840	30.41	87800	2.1	918	2KJ3312- MT33- J1 -Z -		
54		7900	27.17	86100	2.4	918	2KJ3312- MT33- H1 -Z -		
59		7220	24.85	84700	2.6	918	2KJ3312- MT33- G1 -Z -		
67		6420	22.09	82800	3	918	2KJ3312- MT33- F1 -Z -		
<b>FD.169-LES225YMF4P</b>									
29		14700	50.63	57800	0.92	734	2KJ3411- MT33- D1 -Z -		
32		13500	46.55	58100	1	734	2KJ3411- MT33- C1 -Z -		
36		11800	40.82	58400	1.1	734	2KJ3411- MT33- B1 -Z -		
46		9280	31.92	57700	1.5	734	2KJ3411- MT33- A1 -Z -		
<b>FZ.169-LES225YMF4P</b>									
45		9600	33.02	57800	1.4	719	2KJ3311- MT33- P1 -Z -		
49		8680	29.86	57500	1.6	719	2KJ3311- MT33- N1 -Z -		
56		7660	26.35	56800	1.8	719	2KJ3311- MT33- M1 -Z -		
63		6820	23.48	56100	2	719	2KJ3311- MT33- L1 -Z -		
69		6180	21.27	55400	2.2	719	2KJ3311- MT33- K1 -Z -		
77		5560	19.13	54500	2.4	719	2KJ3311- MT33- J1 -Z -		
93		4620	15.90	52900	2.9	719	2KJ3311- MT33- H1 -Z -		
105		4100	14.13	51800	3.1	719	2KJ3311- MT33- G1 -Z -		
131		3270	11.26	49600	3.6	719	2KJ3311- MT33- F1 -Z -		
165		2600	8.97	47300	4	719	2KJ3311- MT33- E1 -Z -		
183		2340	8.07	45200	3.6	719	2KJ3311- MT33- D1 -Z -		
206		2080	7.18	44100	4	719	2KJ3311- MT33- C1 -Z -		
<b>FD.149-LES225YMF4P</b>									
46		9400	32.33	31700	0.8	590	2KJ3410- MT33- A1 -Z -		

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code	
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles	
45	<b>FZ.149-LES225YMF4P</b>								
	53	8120	27.94	32600	0.98	585	2KJ3310- ■ MT33- ■ ■ N1 -Z -		
	59	7240	24.93	33000	1.1	585	2KJ3310- ■ MT33- ■ ■ M1 -Z -		
	67	6460	22.22	33200	1.2	585	2KJ3310- ■ MT33- ■ ■ L1 -Z -		
	75	5730	19.71	33300	1.4	585	2KJ3310- ■ MT33- ■ ■ K1 -Z -		
	82	5260	18.10	33300	1.5	585	2KJ3310- ■ MT33- ■ ■ J1 -Z -		
	93	4630	15.94	33100	1.7	585	2KJ3310- ■ MT33- ■ ■ H1 -Z -		
	113	3800	13.08	32600	2	585	2KJ3310- ■ MT33- ■ ■ G1 -Z -		
	129	3330	11.47	32100	2.2	585	2KJ3310- ■ MT33- ■ ■ F1 -Z -		
	165	2600	8.97	31100	2.6	585	2KJ3310- ■ MT33- ■ ■ E1 -Z -		
	183	2350	8.09	30200	2.4	585	2KJ3310- ■ MT33- ■ ■ D1 -Z -		
	223	1930	6.64	29200	2.9	585	2KJ3310- ■ MT33- ■ ■ C1 -Z -		
	254	1690	5.82	28500	3.4	585	2KJ3310- ■ MT33- ■ ■ B1 -Z -		
	325	1320	4.55	27100	4.3	585	2KJ3310- ■ MT33- ■ ■ A1 -Z -		
	45	<b>FZ.129-LES225YMF4P</b>							
		72	5990	20.60	21000	0.81	496	2KJ3308- ■ MT33- ■ ■ M1 -Z -	
		81	5280	18.18	21600	0.92	496	2KJ3308- ■ MT33- ■ ■ L1 -Z -	
		92	4640	15.99	22000	1	496	2KJ3308- ■ MT33- ■ ■ K1 -Z -	
		102	4210	14.48	22200	1.1	496	2KJ3308- ■ MT33- ■ ■ J1 -Z -	
		117	3660	12.61	22300	1.2	496	2KJ3308- ■ MT33- ■ ■ H1 -Z -	
		143	3000	10.34	22300	1.4	496	2KJ3308- ■ MT33- ■ ■ G1 -Z -	
		151	2840	9.80	21600	1.3	496	2KJ3308- ■ MT33- ■ ■ F1 -Z -	
		171	2510	8.65	21400	1.4	496	2KJ3308- ■ MT33- ■ ■ E1 -Z -	
		194	2210	7.60	21300	1.6	496	2KJ3308- ■ MT33- ■ ■ D1 -Z -	
		215	2000	6.89	21100	1.8	496	2KJ3308- ■ MT33- ■ ■ C1 -Z -	
		246	1740	6.00	20800	2.1	496	2KJ3308- ■ MT33- ■ ■ B1 -Z -	
		300	1430	4.92	20200	2.1	496	2KJ3308- ■ MT33- ■ ■ A1 -Z -	
		45	<b>FZ.109-LES225YMF4P</b>						
	113		3780	13.03	13300	0.82	444	2KJ3307- ■ MT33- ■ ■ J1 -Z -	
	124		3450	11.89	13700	0.89	444	2KJ3307- ■ MT33- ■ ■ H1 -Z -	
	144		2970	10.23	14200	0.97	444	2KJ3307- ■ MT33- ■ ■ G1 -Z -	
	164		2620	9.02	14200	0.8	444	2KJ3307- ■ MT33- ■ ■ F1 -Z -	
	186		2300	7.94	14400	0.87	444	2KJ3307- ■ MT33- ■ ■ E1 -Z -	
	212		2020	6.96	14500	0.94	444	2KJ3307- ■ MT33- ■ ■ D1 -Z -	
	243		1760	6.07	14500	1	444	2KJ3307- ■ MT33- ■ ■ C1 -Z -	
267	1610		5.54	14500	1.1	444	2KJ3307- ■ MT33- ■ ■ B1 -Z -		
310	1380		4.77	14300	1.2	444	2KJ3307- ■ MT33- ■ ■ A1 -Z -		
55	<b>FD.189-LES250MD4P</b>								
	24	22000	62.11	87600	0.86	1049	2KJ3412- ■ NM33- ■ ■ D1 -Z -		
	30	17500	49.43	87600	1.1	1049	2KJ3412- ■ NM33- ■ ■ C1 -Z -		
	36	14300	40.61	86800	1.3	1049	2KJ3412- ■ NM33- ■ ■ B1 -Z -		
	46	11400	32.32	84700	1.7	1049	2KJ3412- ■ NM33- ■ ■ A1 -Z -		
	55	<b>FZ.189-LES250MD4P</b>							
		49	10700	30.41	84100	1.8	1021	2KJ3312- ■ NM33- ■ ■ J1 -Z -	
		55	9630	27.17	82700	2	1021	2KJ3312- ■ NM33- ■ ■ H1 -Z -	
		60	8800	24.85	81600	2.2	1021	2KJ3312- ■ NM33- ■ ■ G1 -Z -	
		67	7820	22.09	80100	2.4	1021	2KJ3312- ■ NM33- ■ ■ F1 -Z -	
		79	6640	18.75	77800	2.9	1021	2KJ3312- ■ NM33- ■ ■ E1 -Z -	
		91	5740	16.21	75600	3.3	1021	2KJ3312- ■ NM33- ■ ■ D1 -Z -	
	55	<b>FD.169-LES250MD4P</b>							
		32	16400	46.55	52000	0.82	838	2KJ3411- ■ NM33- ■ ■ C1 -Z -	
		36	14400	40.82	52900	0.94	838	2KJ3411- ■ NM33- ■ ■ B1 -Z -	
	46	11300	31.92	53400	1.2	838	2KJ3411- ■ NM33- ■ ■ A1 -Z -		
55	<b>FZ.169-LES250MD4P</b>								
	56	9330	26.35	53300	1.5	822	2KJ3311- ■ NM33- ■ ■ M1 -Z -		
	63	8320	23.48	52900	1.6	822	2KJ3311- ■ NM33- ■ ■ L1 -Z -		
	70	7530	21.27	52500	1.8	822	2KJ3311- ■ NM33- ■ ■ K1 -Z -		
	77	6780	19.13	51900	2	822	2KJ3311- ■ NM33- ■ ■ J1 -Z -		
	93	5630	15.90	50800	2.4	822	2KJ3311- ■ NM33- ■ ■ H1 -Z -		
	105	5000	14.13	49900	2.6	822	2KJ3311- ■ NM33- ■ ■ G1 -Z -		
	132	3990	11.26	48000	2.9	822	2KJ3311- ■ NM33- ■ ■ F1 -Z -		

## Article No. supplement

Shaft design	1 or 9	see page 10/49
Frequency and voltage	2 or 9	see page 11/2
Gearbox mounting type	A, F, H or D	see page 10/42

Geared motors up to 55 kW

## Parallel shaft geared motors

## Selection and ordering data

$P_N$	$n_2$	$T_2$	$i$	$F_{R2}$	$f_B$	$m$	Article No.	Additional identification code -Z with order code
kW	rpm	Nm	-	N	-	kg	(Article No. supplement, see below)	No. of poles
55	<b>FZ.169-LES250MD4P</b>							
	165	3170	8.97	46000	3.3	822	2KJ3311- ■ NM33- ■ ■ E1 -Z -	
	184	2860	8.07	43800	2.9	822	2KJ3311- ■ NM33- ■ ■ D1 -Z -	
	206	2540	7.18	42900	3.3	822	2KJ3311- ■ NM33- ■ ■ C1 -Z -	
	259	2020	5.72	40900	4	822	2KJ3311- ■ NM33- ■ ■ B1 -Z -	
	326	1610	4.55	38900	4.5	822	2KJ3311- ■ NM33- ■ ■ A1 -Z -	
	<b>FZ.149-LES250MD4P</b>							
	67	7870	22.22	29600	1	687	2KJ3310- ■ NM33- ■ ■ L1 -Z -	
	75	6980	19.71	30100	1.1	687	2KJ3310- ■ NM33- ■ ■ K1 -Z -	
	82	6410	18.10	30300	1.2	687	2KJ3310- ■ NM33- ■ ■ J1 -Z -	
	93	5640	15.94	30500	1.4	687	2KJ3310- ■ NM33- ■ ■ H1 -Z -	
	113	4630	13.08	30500	1.6	687	2KJ3310- ■ NM33- ■ ■ G1 -Z -	
	129	4060	11.47	30300	1.8	687	2KJ3310- ■ NM33- ■ ■ F1 -Z -	
	165	3170	8.97	29600	2.1	687	2KJ3310- ■ NM33- ■ ■ E1 -Z -	
	183	2860	8.09	28800	2	687	2KJ3310- ■ NM33- ■ ■ D1 -Z -	
	223	2350	6.64	28000	2.4	687	2KJ3310- ■ NM33- ■ ■ C1 -Z -	
	255	2060	5.82	27500	2.8	687	2KJ3310- ■ NM33- ■ ■ B1 -Z -	
	326	1610	4.55	26300	3.5	687	2KJ3310- ■ NM33- ■ ■ A1 -Z -	
	<b>FZ.129-LES250MD4P</b>							
	93	5660	15.99	19200	0.85	598	2KJ3308- ■ NM33- ■ ■ K1 -Z -	
	102	5130	14.48	19600	0.91	598	2KJ3308- ■ NM33- ■ ■ J1 -Z -	
	118	4460	12.61	20100	1	598	2KJ3308- ■ NM33- ■ ■ H1 -Z -	
	143	3660	10.34	20400	1.2	598	2KJ3308- ■ NM33- ■ ■ G1 -Z -	
	171	3060	8.65	19800	1.2	598	2KJ3308- ■ NM33- ■ ■ E1 -Z -	
	195	2690	7.60	19800	1.3	598	2KJ3308- ■ NM33- ■ ■ D1 -Z -	
	215	2440	6.89	19700	1.5	598	2KJ3308- ■ NM33- ■ ■ C1 -Z -	
	247	2120	6.00	19600	1.7	598	2KJ3308- ■ NM33- ■ ■ B1 -Z -	
	301	1740	4.92	19200	1.7	598	2KJ3308- ■ NM33- ■ ■ A1 -Z -	

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

## Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size											Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	180	200	225	
<b>FZ.29</b>																		
56.73	26	150	5220	7.6	0.04	851/15	✓	✓									2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ C2	
50.32	29	150	5220	8.0	0.05	1258/25	✓	✓	✓	✓							2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ B2	
43.66	33	150	5220	8.0	0.06	2183/50	✓	✓	✓	✓							2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ A2	
39.69	37	150	5220	8.0	0.08	2183/55	✓	✓	✓	✓							2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ X1	
34.04	43	150	4910	8.1	0.10	851/25	✓	✓	✓	✓							2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ W1	
30.95	47	150	4720	8.1	0.12	1702/55	✓	✓	✓	✓							2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ V1	
27.13	53	150	4460	8.2	0.14	407/15	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ U1	
24.22	60	150	4250	8.3	0.17	1332/55	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ T1	
21.58	67	150	4040	8.4	0.20	259/12	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ S1	
19.92	73	150	3910	8.4	0.24	259/13	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ R1	
17.44	83	150	3680	8.6	0.28	1221/70	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ Q1	
15.29	95	150	3470	8.8	0.30	1147/75	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ P1	
13.88	104	150	3320	8.9	0.38	111/8	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ N1	
13.06	111	150	3230	8.9	0.44	222/17	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ M1	
11.51	126	143	3100	8.6	0.50	518/45	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ L1	
9.99	145	136	2960	8.8	0.67	999/100	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ K1	
9.69	150	143	2660	13.8	0.26	2664/275	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ J1	
8.63	168	130	2640	14.0	0.32	259/30	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ H1	
7.97	182	120	2630	14.0	0.38	518/65	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ G1	
6.98	208	123	2440	14.5	0.46	1221/175	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ F1	
6.12	237	114	2370	15.0	0.53	2294/375	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ E1	
5.55	261	108	2320	15.3	0.66	111/20	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ D1	
5.22	278	106	2300	15.3	0.76	444/85	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ C1	
4.60	315	97	2280	15.3	0.92	1036/225	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ B1	
4.00	362	91	2250	15.0	1.21	999/250	✓	✓	✓	✓	✓						2KJ3301 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ A1	
<b>FD.29</b>																		
298.58	4.9	150	5220	7.9	0.02	94054/315	✓	✓									2KJ3401 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ Q1	
264.39	5.5	150	5220	8.0	0.03	92537/350	✓	✓	✓	✓							2KJ3401 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ P1	
229.72	6.3	150	5220	8.0	0.04	80401/350	✓	✓	✓	✓							2KJ3401 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ N1	
208.83	6.9	150	5220	8.0	0.05	80401/385	✓	✓	✓	✓							2KJ3401 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ M1	
177.71	8.2	150	5220	8.0	0.06	62197/350	✓	✓	✓	✓							2KJ3401 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ L1	
161.55	9	150	5220	8.0	0.08	62197/385	✓	✓	✓	✓							2KJ3401 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ K1	
140.86	10	150	5220	8.0	0.09	19721/140	✓	✓	✓	✓	✓						2KJ3401 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ J1	
126.09	11	150	5220	8.0	0.12	48544/385	✓	✓	✓	✓	✓						2KJ3401 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ H1	
111.97	13	150	5220	8.0	0.14	47027/420	✓	✓	✓	✓	✓						2KJ3401 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ G1	
103.36	14	150	5220	8.0	0.17	47027/455	✓	✓	✓	✓	✓						2KJ3401 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ F1	
89.78	16	150	5220	8.1	0.19	43993/490	✓	✓	✓	✓	✓						2KJ3401 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ E1	
78.02	19	150	5220	8.0	0.19	13653/175	✓	✓	✓	✓	✓						2KJ3401 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ D1	
70.43	21	150	5220	8.1	0.25	19721/280	✓	✓	✓	✓	✓						2KJ3401 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ C1	
66.29	22	150	5220	8.1	0.29	39442/595	✓	✓	✓	✓	✓						2KJ3401 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ B1	
57.79	25	150	5220	8.1	0.33	6068/105	✓	✓	✓	✓	✓						2KJ3401 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ A1	

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

## Parallel shaft geared motors

## Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size										Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	180	200	
<b>FZ.39</b>																	
65.21	22	290	6040	6.3	0.06	913/14	✓	✓								2KJ3302 - ■■■■■■ - ■■■ B2	
57.99	25	230	6000	6.6	0.08	4059/70	✓	✓	✓	✓						2KJ3302 - ■■■■■■ - ■■■ A2	
50.91	28	240	5950	6.6	0.09	1782/35	✓	✓	✓	✓						2KJ3302 - ■■■■■■ - ■■■ X1	
46.29	31	255	5820	6.6	0.11	324/7	✓	✓	✓	✓						2KJ3302 - ■■■■■■ - ■■■ W1	
39.60	37	290	5950	6.7	0.13	198/5	✓	✓	✓	✓						2KJ3302 - ■■■■■■ - ■■■ V1	
36.00	40	255	5480	6.7	0.16	36/1	✓	✓	✓	✓						2KJ3302 - ■■■■■■ - ■■■ U1	
31.82	46	285	5320	6.8	0.19	891/28	✓	✓	✓	✓	✓					2KJ3302 - ■■■■■■ - ■■■ T1	
28.93	50	275	5080	6.8	0.26	405/14	✓	✓	✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ S1	
25.34	57	265	4930	6.9	0.30	1419/56	✓	✓	✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ R1	
23.39	62	260	4730	6.9	0.36	4257/182	✓	✓	✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ Q1	
20.71	70	250	4730	7.0	0.42	4059/196	✓	✓	✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ P1	
17.24	84	235	4450	7.2	0.57	3861/224	✓	✓	✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ N1	
16.22	89	230	4360	7.2	0.66	3861/238	✓	✓	✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ M1	
14.54	100	220	4220	7.3	0.74	407/28	✓	✓	✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ L1	
12.38	117	210	3990	7.5	0.97	99/8	✓	✓	✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ K1	
10.61	137	199	3790	7.7	1.28	297/28			✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ J1	
9.13	159	189	3610	7.9	1.65	1023/112			✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ H1	
8.10	179	167	3430	12.1	0.70	3403/420	✓	✓	✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ G1	
6.74	215	152	3270	12.5	0.96	1079/160	✓	✓	✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ F1	
6.35	228	149	3200	12.5	1.11	1079/170	✓	✓	✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ E1	
5.69	255	140	3120	12.9	1.29	3071/540	✓	✓	✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ D1	
4.84	300	128	3000	13.4	1.73	581/120	✓	✓	✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ C1	
4.15	349	118	2950	13.9	2.30	83/20			✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ B1	
3.57	406	108	2890	14.5	3.00	2573/720			✓	✓	✓	✓				2KJ3302 - ■■■■■■ - ■■■ A1	
<b>FD.39</b>																	
274.26	5.3	290	5820	6.9	0.04	32637/119	✓	✓								2KJ3402 - ■■■■■■ - ■■■ R1	
243.26	6	290	5820	7.0	0.05	8514/35	✓	✓	✓	✓						2KJ3402 - ■■■■■■ - ■■■ Q1	
211.06	6.9	290	5820	7.0	0.06	251163/1190	✓	✓	✓	✓						2KJ3402 - ■■■■■■ - ■■■ P1	
191.87	7.6	290	5820	7.0	0.07	22833/119	✓	✓	✓	✓						2KJ3402 - ■■■■■■ - ■■■ N1	
164.56	8.8	290	5820	7.0	0.09	97911/595	✓	✓	✓	✓						2KJ3402 - ■■■■■■ - ■■■ M1	
149.60	9.7	290	5820	7.0	0.11	17802/119	✓	✓	✓	✓						2KJ3402 - ■■■■■■ - ■■■ L1	
131.17	11	290	5820	7.0	0.12	15609/119	✓	✓	✓	✓	✓					2KJ3402 - ■■■■■■ - ■■■ K1	
117.08	12	290	5820	7.0	0.15	13932/119	✓	✓	✓	✓	✓					2KJ3402 - ■■■■■■ - ■■■ J1	
104.34	14	290	5820	7.0	0.18	7095/68	✓	✓	✓	✓	✓	✓				2KJ3402 - ■■■■■■ - ■■■ H1	
96.31	15	290	5820	7.0	0.21	21285/221	✓	✓	✓	✓	✓	✓				2KJ3402 - ■■■■■■ - ■■■ G1	
84.32	17	290	5820	7.1	0.25	140481/1666	✓	✓	✓	✓	✓	✓				2KJ3402 - ■■■■■■ - ■■■ F1	
73.93	20	290	5820	7.1	0.24	43989/595	✓	✓	✓	✓	✓	✓				2KJ3402 - ■■■■■■ - ■■■ E1	
67.07	22	290	5820	7.2	0.34	63855/952	✓	✓	✓	✓	✓	✓				2KJ3402 - ■■■■■■ - ■■■ D1	
63.13	23	290	5820	7.2	0.40	127710/2023	✓	✓	✓	✓	✓	✓				2KJ3402 - ■■■■■■ - ■■■ C1	
55.65	26	290	5820	7.2	0.44	946/17	✓	✓	✓	✓	✓	✓				2KJ3402 - ■■■■■■ - ■■■ B1	
48.29	30	290	5820	7.2	0.59	114939/2380	✓	✓	✓	✓	✓	✓				2KJ3402 - ■■■■■■ - ■■■ A1	

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

**Selection and ordering data**

<i>i</i>	<i>n</i> <sub>2</sub> rpm	<i>T</i> <sub>2N</sub> Nm	<i>F</i> <sub>R2</sub> N	$\varphi$ <sup>1)</sup>	<i>J</i> <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	<i>R</i> <sub>ex</sub>	Motor frame size											Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	180	200	225	
<b>FZ.49</b>																		
<b>61.43</b>	24	480	6990	6.0	0.18	1843/30	✓	✓	✓	✓						2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ X1		
<b>55.85</b>	26	480	6680	6.0	0.22	1843/33	✓	✓	✓	✓						2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ W1		
<b>47.50</b>	31	480	6160	6.0	0.27	95/2	✓	✓	✓	✓						2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ V1		
<b>43.18</b>	34	480	5870	6.0	0.33	475/11	✓	✓	✓	✓						2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ U1		
<b>38.53</b>	38	480	5530	6.1	0.39	1387/36	✓	✓	✓	✓	✓					2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ T1		
<b>34.55</b>	42	480	5220	6.1	0.47	380/11	✓	✓	✓	✓	✓	✓				2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ S1		
<b>31.14</b>	47	480	4940	6.2	0.55	1121/36	✓	✓	✓	✓	✓	✓				2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ R1		
<b>28.74</b>	50	480	4730	6.1	0.65	1121/39	✓	✓	✓	✓	✓	✓				2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ Q1		
<b>26.24</b>	55	480	4490	6.2	0.77	551/21	✓	✓	✓	✓	✓	✓	✓			2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ P1		
<b>21.77</b>	67	480	4030	6.3	0.99	1045/48	✓	✓	✓	✓	✓	✓	✓			2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ N1		
<b>20.49</b>	71	480	3890	6.3	1.15	1045/51	✓	✓	✓	✓	✓	✓	✓			2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ M1		
<b>19.35</b>	75	480	3750	6.3	1.30	1045/54	✓	✓	✓	✓	✓	✓	✓			2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ L1		
<b>16.47</b>	88	480	3390	6.4	1.61	247/15	✓	✓	✓	✓	✓	✓	✓			2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ K1		
<b>14.11</b>	103	480	3060	6.6	1.99	931/66			✓	✓	✓	✓	✓			2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ J1		
<b>12.40</b>	117	480	3010	6.7	2.50	893/72			✓	✓	✓	✓	✓			2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ H1		
<b>10.46</b>	139	480	3140	6.8	3.10	722/69			✓	✓	✓	✓	✓			2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ G1		
<b>9.12</b>	159	480	3210	7.4	4.20	228/25			✓	✓	✓	✓	✓			2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ F1		
<b>8.40</b>	173	450	3010	9.3	2.20	42/5	✓	✓	✓	✓	✓	✓	✓			2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ E1		
<b>7.20</b>	201	450	3070	9.6	2.80	1029/143			✓	✓	✓	✓	✓			2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ D1		
<b>6.33</b>	229	430	3090	9.9	3.50	329/52			✓	✓	✓	✓	✓			2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ C1		
<b>5.34</b>	272	400	3080	10.2	4.60	1596/299			✓	✓	✓	✓	✓			2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ B1		
<b>4.65</b>	312	375	3060	11.3	6.10	1512/325			✓	✓	✓	✓	✓			2KJ3303 - ■ ■ ■ ■ ■ - ■ ■ ■ A1		
<b>FD.49</b>																		
<b>330.98</b>	4.4	480	7960	6.2	0.06	26809/81	✓	✓								2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ S1		
<b>294.29</b>	4.9	480	7960	6.3	0.07	13243/45	✓	✓	✓	✓						2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ R1		
<b>258.40</b>	5.6	480	7960	6.3	0.08	1292/5	✓	✓	✓	✓						2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ Q1		
<b>234.91</b>	6.2	480	7960	6.3	0.10	2584/11	✓	✓	✓	✓						2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ P1		
<b>200.98</b>	7.2	480	7960	6.3	0.12	9044/45	✓	✓	✓	✓						2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ N1		
<b>182.71</b>	7.9	480	7960	6.3	0.14	18088/99	✓	✓	✓	✓						2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ M1		
<b>161.50</b>	9	480	7960	6.3	0.17	323/2	✓	✓	✓	✓	✓					2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ L1		
<b>146.82</b>	9.9	480	7960	6.3	0.22	1615/11	✓	✓	✓	✓	✓					2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ K1		
<b>128.60</b>	11	480	7960	6.3	0.26	13889/108	✓	✓	✓	✓	✓					2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ J1		
<b>118.71</b>	12	480	7960	6.3	0.31	13889/117	✓	✓	✓	✓	✓					2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ H1		
<b>105.10</b>	14	480	7960	6.4	0.37	13243/126	✓	✓	✓	✓	✓	✓				2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ G1		
<b>87.48</b>	17	480	7960	6.4	0.50	4199/48	✓	✓	✓	✓	✓	✓				2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ F1		
<b>82.33</b>	18	480	7960	6.4	0.59	247/3	✓	✓	✓	✓	✓	✓				2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ E1		
<b>73.77</b>	20	480	7630	6.4	0.66	11951/162	✓	✓	✓	✓	✓	✓				2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ D1		
<b>62.81</b>	23	480	7070	6.4	0.86	2261/36	✓	✓	✓	✓	✓	✓				2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ C1		
<b>53.83</b>	27	480	6560	6.5	1.13	323/6			✓	✓	✓	✓	✓			2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ B1		
<b>46.36</b>	31	480	6080	6.5	1.46	10013/216			✓	✓	✓	✓	✓			2KJ3403 - ■ ■ ■ ■ ■ - ■ ■ ■ A1		

**Article No. supplement**

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

## Parallel shaft geared motors

## Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size											Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	180	200	225	
<b>FZ.69</b>																		
<b>64.67</b>	22	600	9620	5.7	0.19	194/3	✓	✓	✓	✓						2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ X1		
<b>58.79</b>	25	600	9210	5.7	0.23	1940/33	✓	✓	✓	✓						2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ W1		
<b>50.00</b>	29	600	8530	5.8	0.29	50/1	✓	✓	✓	✓						2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ V1		
<b>45.45</b>	32	600	8140	5.8	0.35	500/11	✓	✓	✓	✓						2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ U1		
<b>40.56</b>	36	600	7700	5.8	0.41	365/9	✓	✓	✓	✓	✓					2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ T1		
<b>36.36</b>	40	600	7290	5.9	0.49	400/11	✓	✓	✓	✓	✓	✓				2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ S1		
<b>32.78</b>	44	600	6920	5.9	0.58	295/9	✓	✓	✓	✓	✓	✓				2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ R1		
<b>30.26</b>	48	600	6640	5.9	0.69	1180/39	✓	✓	✓	✓	✓	✓				2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ Q1		
<b>27.62</b>	52	600	6330	5.9	0.83	580/21	✓	✓	✓	✓	✓	✓	✓			2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ P1		
<b>22.92</b>	63	600	5720	6.0	1.07	275/12	✓	✓	✓	✓	✓	✓	✓			2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ N1		
<b>21.57</b>	67	600	5540	6.0	1.23	1100/51	✓	✓	✓	✓	✓	✓	✓			2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ M1		
<b>20.37</b>	71	600	5360	6.0	1.39	550/27	✓	✓	✓	✓	✓	✓	✓			2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ L1		
<b>17.33</b>	84	600	4890	6.2	1.74	52/3	✓	✓	✓	✓	✓	✓	✓			2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ K1		
<b>14.85</b>	98	600	4450	6.2	2.20	490/33			✓	✓	✓	✓	✓			2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ J1		
<b>13.06</b>	111	600	4110	6.2	2.70	235/18			✓	✓	✓	✓	✓			2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ H1		
<b>11.01</b>	132	600	4040	6.2	3.50	760/69			✓	✓	✓	✓	✓			2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ G1		
<b>9.60</b>	151	600	4140	6.2	4.60	48/5			✓	✓	✓	✓	✓			2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ F1		
<b>8.90</b>	163	475	4040	8.9	2.40	89/10	✓	✓	✓	✓	✓	✓	✓			2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ E1		
<b>7.62</b>	190	465	4100	8.9	3.10	4361/572			✓	✓	✓	✓	✓			2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ D1		
<b>6.70</b>	216	440	4120	8.9	3.90	4183/624			✓	✓	✓	✓	✓			2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ C1		
<b>5.66</b>	256	410	4110	8.9	5.10	1691/299			✓	✓	✓	✓	✓			2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ B1		
<b>4.93</b>	294	385	4070	8.9	6.80	1602/325			✓	✓	✓	✓	✓			2KJ3304 - ■ ■ ■ ■ ■ - ■ ■ ■ A1		
<b>FD.69</b>																		
<b>348.40</b>	4.2	600	10800	6.0	0.06	28220/81	✓	✓								2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ S1		
<b>309.78</b>	4.7	600	10800	6.0	0.07	2788/9	✓	✓	✓	✓						2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ R1		
<b>272.00</b>	5.3	600	10800	6.0	0.08	272/1	✓	✓	✓	✓						2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ Q1		
<b>247.27</b>	5.9	600	10800	6.0	0.10	2720/11	✓	✓	✓	✓						2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ P1		
<b>211.56</b>	6.9	600	10800	6.0	0.12	1904/9	✓	✓	✓	✓						2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ N1		
<b>192.32</b>	7.5	600	10800	6.0	0.14	19040/99	✓	✓	✓	✓						2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ M1		
<b>170.00</b>	8.5	600	10800	6.1	0.17	170/1	✓	✓	✓	✓	✓					2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ L1		
<b>154.55</b>	9.4	600	10800	6.1	0.22	1700/11	✓	✓	✓	✓	✓	✓				2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ K1		
<b>135.37</b>	11	600	10800	6.1	0.26	3655/27	✓	✓	✓	✓	✓	✓				2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ J1		
<b>124.96</b>	12	600	10800	6.1	0.31	14620/117	✓	✓	✓	✓	✓	✓				2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ H1		
<b>110.63</b>	13	600	10800	6.1	0.38	6970/63	✓	✓	✓	✓	✓	✓	✓			2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ G1		
<b>92.08</b>	16	600	10800	6.1	0.51	1105/12	✓	✓	✓	✓	✓	✓	✓			2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ F1		
<b>86.67</b>	17	600	10800	6.1	0.60	260/3	✓	✓	✓	✓	✓	✓	✓			2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ E1		
<b>77.65</b>	19	600	10400	6.2	0.66	6290/81	✓	✓	✓	✓	✓	✓	✓			2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ D1		
<b>66.11</b>	22	600	9720	6.2	0.87	595/9	✓	✓	✓	✓	✓	✓	✓			2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ C1		
<b>56.67</b>	26	600	9050	6.2	1.15	170/3			✓	✓	✓	✓	✓			2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ B1		
<b>48.80</b>	30	600	8430	6.2	1.47	2635/54			✓	✓	✓	✓	✓			2KJ3404 - ■ ■ ■ ■ ■ - ■ ■ ■ A1		

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

## Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size										Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	180	200	
<b>FZ.79</b>																	
53.55	27	1000	13600	5.6	0.56	589/11	✓	✓	✓							2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ X1	
48.03	30	1000	13600	5.6	0.77	1729/36	✓	✓	✓	✓	✓					2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ W1	
43.18	34	1000	13600	5.7	0.87	475/11	✓	✓	✓	✓	✓					2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ V1	
39.06	37	1000	13600	5.7	0.97	703/18	✓	✓	✓	✓	✓					2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ U1	
36.05	40	1000	13600	5.7	1.15	1406/39	✓	✓	✓	✓	✓					2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ T1	
33.02	44	1000	13600	5.7	1.49	1387/42	✓	✓	✓	✓	✓	✓				2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ S1	
27.71	52	1000	13600	5.7	1.62	665/24	✓	✓	✓	✓	✓	✓	✓			2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ R1	
26.08	56	1000	13600	5.7	1.85	1330/51	✓	✓	✓	✓	✓	✓	✓			2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ Q1	
23.93	61	1000	13600	5.7	2.0	646/27	✓	✓	✓	✓	✓	✓	✓			2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ P1	
20.90	69	1000	13600	5.7	2.9	209/10	✓	✓	✓	✓	✓	✓	✓			2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ N1	
18.71	77	1000	12900	5.7	3.6	1235/66			✓	✓	✓	✓	✓	✓		2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ M1	
16.36	89	1000	12200	5.7	4.2	589/36			✓	✓	✓	✓	✓	✓		2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ L1	
14.04	103	1000	11400	5.8	4.7	323/23			✓	✓	✓	✓	✓	✓		2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ K1	
12.41	117	1000	10800	6.2	6.0	931/75			✓	✓	✓	✓	✓	✓		2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ J1	
10.56	137	1000	10100	6.3	7.8	95/9				✓	✓	✓	✓	✓		2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ H1	
9.05	160	1000	9980	6.5	10	190/21					✓	✓	✓	✓		2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ G1	
8.51	170	720	10300	8.9	4.6	468/55			✓	✓	✓	✓	✓	✓		2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ F1	
7.44	195	725	9770	9.2	5.5	186/25			✓	✓	✓	✓	✓	✓		2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ E1	
6.39	227	720	9690	9.3	6.5	3672/575			✓	✓	✓	✓	✓	✓		2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ D1	
5.64	257	700	9620	10.2	8.3	3528/625			✓	✓	✓	✓	✓	✓		2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ C1	
4.80	302	650	9480	10.6	11	24/5					✓	✓	✓	✓		2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ B1	
4.11	353	605	9310	11.0	15	144/35					✓	✓	✓	✓		2KJ3305 - ■ ■ ■ ■ ■ - ■ ■ ■ A1	
<b>FD.79</b>																	
357.00	4.1	1000	13600	5.6	0.17	57133/160	✓	✓	✓							2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ S1	
324.62	4.5	1000	13600	5.6	0.20	57133/176	✓	✓	✓							2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ R1	
276.09	5.3	1000	13600	5.6	0.25	8835/32	✓	✓								2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ Q1	
250.99	5.8	1000	13600	5.6	0.30	44175/176	✓	✓	✓							2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ P1	
223.94	6.5	1000	13600	5.6	0.35	42997/192	✓	✓	✓	✓	✓					2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ N1	
200.80	7.2	1000	13600	5.6	0.42	8835/44	✓	✓	✓	✓	✓					2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ M1	
180.99	8	1000	13600	5.6	0.49	34751/192	✓	✓	✓	✓	✓					2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ L1	
167.07	8.7	1000	13600	5.6	0.58	34751/208	✓	✓	✓	✓	✓					2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ K1	
152.51	9.5	1000	13600	5.6	0.69	17081/112	✓	✓	✓	✓	✓	✓				2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ J1	
126.54	11	1000	13600	5.7	0.87	32395/256	✓	✓	✓	✓	✓	✓	✓			2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ H1	
119.10	12	1000	13600	5.7	1.01	32395/272	✓	✓	✓	✓	✓	✓	✓			2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ G1	
112.48	13	1000	13600	5.7	1.15	32395/288	✓	✓	✓	✓	✓	✓	✓			2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ F1	
95.71	15	1000	13600	5.7	1.39	7657/80	✓	✓	✓	✓	✓	✓	✓			2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ E1	
81.99	18	1000	13600	5.7	1.70	28861/352			✓	✓	✓	✓	✓			2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ D1	
72.09	20	1000	13600	5.7	2.10	27683/384			✓	✓	✓	✓	✓			2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ C1	
60.82	24	1000	13600	5.7	2.60	11191/184			✓	✓	✓	✓	✓			2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ B1	
53.01	27	1000	13600	5.8	3.50	5301/100			✓	✓	✓	✓	✓			2KJ3405 - ■ ■ ■ ■ ■ - ■ ■ ■ A1	

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

## Parallel shaft geared motors

## Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size										Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	180	200	
<b>FZ.89</b>																	
61.72	23	1850	17400	4.8	1.38	2407/39		✓	✓	✓	✓					2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ B2	
55.72	26	1850	17400	4.8	1.51	7968/143		✓	✓	✓	✓					2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ A2	
50.54	29	1850	17400	4.8	1.77	7885/156		✓	✓	✓	✓					2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ X1	
46.66	31	1850	17400	4.8	2.1	7885/169		✓	✓	✓	✓					2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ W1	
42.41	34	1850	17400	4.9	2.4	7719/182		✓	✓	✓	✓	✓	✓			2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ V1	
35.91	40	1850	17400	4.9	2.9	3735/104		✓	✓	✓	✓	✓	✓			2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ U1	
33.80	43	1850	17400	4.9	3.0	7470/221		✓	✓	✓	✓	✓	✓			2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ T1	
31.21	46	1850	17400	5.0	4.5	3652/117		✓	✓	✓	✓	✓	✓			2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ S1	
27.77	52	1850	17400	5.0	5.5	7221/260		✓	✓	✓	✓	✓	✓			2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ R1	
24.67	59	1850	17400	5.0	6.7	7055/286		✓	✓	✓	✓	✓	✓			2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ Q1	
22.08	66	1850	17400	5.1	6.7	6889/312		✓	✓	✓	✓	✓	✓			2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ P1	
18.88	77	1850	17200	5.1	7.9	5644/299		✓	✓	✓	✓	✓	✓			2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ N1	
16.86	86	1850	16400	5.4	10	5478/325		✓	✓	✓	✓	✓	✓			2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ M1	
14.90	97	1850	15500	5.5	12	581/39				✓	✓	✓	✓	✓		2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ L1	
13.07	111	1850	14600	5.3	16	3569/273				✓	✓	✓	✓	✓		2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ K1	
11.38	127	1850	14600	5.3	20	3403/299				✓	✓	✓	✓	✓		2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ J1	
9.73	149	1850	14600	5.5	26	2656/273				✓	✓	✓	✓	✓		2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ H1	
8.33	174	1740	14500	5.6	33	2490/299				✓	✓	✓	✓	✓		2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ G1	
7.60	191	1100	14100	9.0	14	4752/625			✓	✓	✓	✓	✓	✓		2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ F1	
6.72	216	1110	14000	9.2	17	168/25				✓	✓	✓	✓	✓		2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ E1	
5.90	246	1110	13800	9.2	23	1032/175				✓	✓	✓	✓	✓		2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ D1	
5.13	283	1110	13600	9.2	28	2952/575				✓	✓	✓	✓	✓		2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ C1	
4.39	330	1060	13300	9.2	39	768/175				✓	✓	✓	✓	✓		2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ B1	
3.76	386	985	12900	9.5	50	432/115				✓	✓	✓	✓	✓		2KJ3306 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ A1	
<b>FD.89</b>																	
335.30	4.3	1850	17400	5.1	0.42	370512/1105		✓	✓							2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ S1	
304.82	4.8	1850	17400	5.1	0.51	741024/2431		✓	✓							2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ R1	
273.41	5.3	1850	17400	5.1	0.71	4648/17		✓	✓	✓	✓					2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ Q1	
245.82	5.9	1850	17400	5.1	0.79	597600/2431		✓	✓	✓	✓					2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ P1	
222.33	6.5	1850	17400	5.1	0.88	49136/221		✓	✓	✓	✓					2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ N1	
205.23	7.1	1850	17400	5.1	1.03	589632/2873		✓	✓	✓	✓					2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ M1	
188.00	7.7	1850	17400	5.1	1.35	290832/1547		✓	✓	✓	✓	✓	✓			2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ L1	
157.74	9.2	1850	17400	5.1	1.43	34860/221		✓	✓	✓	✓	✓	✓			2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ K1	
148.46	9.8	1850	17400	5.1	1.64	557760/3757		✓	✓	✓	✓	✓	✓			2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ J1	
136.21	11	1850	17400	5.1	1.79	5312/39		✓	✓	✓	✓	✓	✓			2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ H1	
118.98	12	1850	17400	5.1	2.6	131472/1105		✓	✓	✓	✓	✓	✓			2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ G1	
106.52	14	1850	17400	5.1	3.1	19920/187		✓	✓	✓	✓	✓	✓			2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ F1	
93.14	16	1850	17400	5.1	3.7	20584/221		✓	✓	✓	✓	✓	✓			2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ E1	
79.95	18	1850	17400	5.2	4.0	23904/299		✓	✓	✓	✓	✓	✓			2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ D1	
70.67	21	1850	17400	5.2	5.1	390432/5525		✓	✓	✓	✓	✓	✓			2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ C1	
60.09	24	1850	17400	5.3	6.5	13280/221				✓	✓	✓	✓			2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ B1	
51.51	28	1850	17400	5.3	8.5	79680/1547				✓	✓	✓	✓			2KJ3406 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ A1	

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

## Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size											Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	180	200	225	
<b>FZ.109</b>																		
70.74	20	3100	25000	4.6	3.6	12733/180				✓	✓	✓				2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ B2		
65.30	22	3100	25000	4.6	4.3	12733/195				✓	✓	✓				2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ A2		
60.12	24	3100	25000	4.6	4.9	6313/105				✓	✓	✓	✓	✓		2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ X1		
51.27	28	3100	25000	4.6	6.3	2461/48				✓	✓	✓	✓	✓		2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ W1		
48.25	30	3100	25000	4.6	7.1	2461/51				✓	✓	✓	✓	✓		2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ V1		
44.78	32	3100	25000	4.6	7.8	12091/270				✓	✓	✓	✓	✓		2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ U1		
39.59	37	3100	25000	4.6	9.5	3959/100				✓	✓	✓	✓	✓		2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ T1		
35.34	41	3100	24700	4.7	11	11663/330				✓	✓	✓	✓	✓		2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ S1		
31.80	46	3100	23600	4.7	13	11449/360				✓	✓	✓	✓	✓		2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ R1		
27.60	53	3100	22200	4.7	16	9523/345				✓	✓	✓	✓	✓		2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ Q1		
24.82	58	3100	21200	4.9	19	3103/125				✓	✓	✓	✓	✓	✓	2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ P1		
21.70	67	3100	19900	5.0	23	7811/360				✓	✓	✓	✓	✓	✓	2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ N1		
19.36	75	3100	18900	5.0	27	2033/105				✓	✓	✓	✓	✓	✓	2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ M1		
17.06	85	3100	17800	5.0	33	1177/69				✓	✓	✓	✓	✓	✓	2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ L1		
14.95	97	3100	16700	5.1	40	4708/315				✓	✓	✓	✓	✓	✓	2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ K1		
13.03	111	3100	15600	5.2	48	1498/115				✓	✓	✓	✓	✓	✓	2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ J1		
11.89	122	3060	15600	5.2	56	107/9				✓	✓	✓	✓	✓	✓	2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ H1		
10.23	142	2880	15900	5.3	70	1177/115				✓	✓	✓	✓	✓	✓	2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ G1		
9.02	161	2090	16100	7.6	36	1767/196				✓	✓	✓	✓	✓	✓	2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ F1		
7.94	183	2000	15800	7.8	44	5115/644				✓	✓	✓	✓	✓	✓	2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ E1		
6.96	208	1900	15700	7.9	54	341/49				✓	✓	✓	✓	✓	✓	2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ D1		
6.07	239	1800	15600	8.1	68	279/46				✓	✓	✓	✓	✓	✓	2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ C1		
5.54	262	1730	15400	8.2	79	155/28				✓	✓	✓	✓	✓	✓	2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ B1		
4.77	304	1620	15200	8.4	102	3069/644				✓	✓	✓	✓	✓	✓	2KJ3307 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ A1		
<b>FD.109</b>																		
410.00	3.5	3100	25000	6.5	1.27	332021/810				✓	✓	✓				2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ T1		
370.00	3.9	3100	25000	6.5	1.37	183184/495				✓	✓	✓				2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ S1		
335.70	4.3	3100	25000	6.5	1.61	217531/648				✓	✓	✓				2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ R1		
309.87	4.7	3100	25000	6.5	1.89	217531/702				✓	✓	✓				2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ Q1		
281.68	5.1	3100	25000	6.5	2.2	354919/1260				✓	✓	✓	✓	✓		2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ P1		
238.52	6.1	3100	25000	6.5	2.6	11449/48				✓	✓	✓	✓	✓		2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ N1		
224.49	6.5	3100	25000	6.5	2.6	11449/51				✓	✓	✓	✓	✓		2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ M1		
207.31	7	3100	25000	6.5	4.0	251878/1215				✓	✓	✓	✓	✓		2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ L1		
184.46	7.9	3100	25000	6.5	5.0	332021/1800				✓	✓	✓	✓	✓		2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ K1		
163.83	8.9	3100	25000	6.5	5.9	194633/1188				✓	✓	✓	✓	✓		2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ J1		
146.65	9.9	3100	25000	6.5	5.9	950267/6480				✓	✓	✓	✓	✓		2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ H1		
125.37	12	3100	25000	6.5	6.7	389266/3105				✓	✓	✓	✓	✓		2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ G1		
111.95	13	3100	25000	6.5	8.6	125939/1125				✓	✓	✓	✓	✓		2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ F1		
98.94	15	3100	25000	6.5	9.6	80143/810				✓	✓	✓	✓	✓		2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ E1		
86.83	17	3100	25000	6.5	14	492307/5670				✓	✓	✓	✓	✓		2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ D1		
75.59	19	3100	25000	6.5	16	469409/6210				✓	✓	✓	✓	✓		2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ C1		
64.62	22	3100	25000	6.5	21	183184/2835				✓	✓	✓	✓	✓		2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ B1		
55.31	26	3100	25000	6.5	25	11449/207				✓	✓	✓	✓	✓		2KJ3407 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ A1		

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

## Parallel shaft geared motors

## Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size										Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	180	200	
<b>FZ.129</b>																	
69.20	21	4850	37200	5.1	7.7	13563/196			✓	✓	✓	✓	✓			2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ A2	
59.22	24	4850	37200	5.1	9.7	6633/112			✓	✓	✓	✓	✓			2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ X1	
55.74	26	4850	37200	5.1	11	6633/119			✓	✓	✓	✓	✓			2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ W1	
52.25	28	4850	36600	5.1	12	209/4			✓	✓	✓	✓	✓			2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ V1	
46.32	31	4850	34800	5.1	15	12969/280			✓	✓	✓	✓	✓			2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ U1	
41.14	35	4850	33100	5.1	18	288/7			✓	✓	✓	✓	✓			2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ T1	
37.12	39	4850	31700	5.1	21	297/8			✓	✓	✓	✓	✓			2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ S1	
32.90	44	4850	30100	5.2	26	10593/322			✓	✓	✓	✓	✓			2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ R1	
29.13	50	4850	28500	5.3	29	10197/350			✓	✓	✓	✓	✓	✓		2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ Q1	
25.93	56	4850	27100	5.3	35	363/14			✓	✓	✓	✓	✓	✓		2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ P1	
23.23	62	4850	25800	5.3	41	2277/98			✓	✓	✓	✓	✓	✓	✓	2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ N1	
20.60	70	4850	24400	5.3	49	6633/322			✓	✓	✓	✓	✓	✓	✓	2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ M1	
18.18	80	4850	23000	5.4	60	891/49			✓	✓	✓	✓	✓	✓	✓	2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ L1	
15.99	91	4800	21700	5.4	73	2574/161			✓	✓	✓	✓	✓	✓	✓	2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ K1	
14.48	100	4690	21000	5.5	83	1419/98			✓	✓	✓	✓	✓	✓	✓	2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ J1	
12.61	115	4530	20100	5.5	101	4059/322				✓	✓	✓	✓	✓	✓	2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ H1	
10.34	140	4320	20400	5.5	135	1881/182				✓	✓	✓	✓	✓	✓	2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ G1	
9.80	148	3630	19600	8.1	64	2479/253			✓	✓	✓	✓	✓	✓	✓	2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ F1	
8.65	168	3640	19700	8.1	79	666/77			✓	✓	✓	✓	✓	✓	✓	2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ E1	
7.60	191	3620	19800	8.1	97	1924/253			✓	✓	✓	✓	✓	✓	✓	2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ D1	
6.89	210	3630	19700	8.2	112	1591/231			✓	✓	✓	✓	✓	✓	✓	2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ C1	
6.00	242	3640	19600	8.3	140	1517/253				✓	✓	✓	✓	✓	✓	2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ B1	
4.92	295	3030	19300	8.5	192	703/143				✓	✓	✓	✓	✓	✓	2KJ3308 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ A1	
<b>FD.129</b>																	
413.00	3.5	4850	37200	5.5	3.3	9911/24			✓	✓	✓					2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ T1	
381.00	3.8	4850	37200	5.5	3.9	9911/26			✓	✓	✓					2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ S1	
351.00	4.1	4850	37200	5.5	4.5	34397/98			✓	✓	✓	✓	✓			2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ R1	
299.31	4.8	4850	37200	5.5	5.6	67045/224			✓	✓	✓	✓	✓			2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ Q1	
281.70	5.1	4850	37200	5.5	6.4	67045/238			✓	✓	✓	✓	✓			2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ P1	
261.42	5.5	4850	37200	5.5	6.9	65879/252			✓	✓	✓	✓	✓			2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ N1	
231.12	6.3	4850	37200	5.5	8.4	64713/280			✓	✓	✓	✓	✓			2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ M1	
206.32	7	4850	37200	5.5	10	5777/28			✓	✓	✓	✓	✓			2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ L1	
185.66	7.8	4850	37200	5.5	12	62381/336			✓	✓	✓	✓	✓			2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ K1	
161.14	9	4850	37200	5.5	14	51887/322			✓	✓	✓	✓	✓			2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ J1	
144.92	10	4850	37200	5.5	16	50721/350			✓	✓	✓	✓	✓			2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ H1	
126.66	11	4850	37200	5.5	19	42559/336			✓	✓	✓	✓	✓			2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ G1	
113.03	13	4850	37200	5.5	23	11077/98			✓	✓	✓	✓	✓			2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ F1	
99.58	15	4850	37200	5.5	27	32065/322			✓	✓	✓	✓	✓			2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ E1	
87.25	17	4850	37200	5.5	32	12826/147			✓	✓	✓	✓	✓			2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ D1	
76.04	19	4850	37200	5.5	37	1749/23			✓	✓	✓	✓	✓			2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ C1	
69.40	21	4850	37200	5.5	44	2915/42			✓	✓	✓	✓	✓			2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ B1	
59.75	24	4850	37200	5.5	53	19239/322				✓	✓	✓	✓			2KJ3408 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ A1	

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

## Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size										Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	180	200	
<b>FZ.149</b>																	
48.48	30	8000	42700	4.6	31	1600/33				✓	✓	✓	✓				2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ T1
43.89	33	8000	40800	4.6	36	395/9				✓	✓	✓	✓				2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ S1
38.55	38	8000	38500	4.6	44	2660/69				✓	✓	✓	✓				2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ R1
34.93	42	8000	36800	4.6	51	524/15				✓	✓	✓	✓	✓			2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ Q1
31.11	47	8000	34900	4.7	60	280/9				✓	✓	✓	✓	✓	✓		2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ P1
27.94	52	8000	33100	4.7	72	1760/63				✓	✓	✓	✓	✓	✓	✓	2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ N1
24.93	58	8000	31300	4.7	84	1720/69				✓	✓	✓	✓	✓	✓	✓	2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ M1
22.22	65	8000	29600	4.7	98	200/9				✓	✓	✓	✓	✓	✓	✓	2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ L1
19.71	74	8000	27800	4.7	117	1360/69				✓	✓	✓	✓	✓	✓	✓	2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ K1
18.10	80	8000	26600	4.8	132	380/21				✓	✓	✓	✓	✓	✓	✓	2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ J1
15.94	91	8000	24900	4.8	156	1100/69					✓	✓	✓	✓	✓	✓	2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ H1
13.08	111	7620	23200	4.9	212	170/13					✓	✓	✓	✓	✓	✓	2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ G1
11.47	126	7320	23700	4.9	241	172/15					✓	✓	✓	✓	✓	✓	2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ F1
8.97	162	6770	24500	6.2	379	260/29					✓	✓	✓	✓	✓	✓	2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ E1
8.09	179	5690	23900	6.2	200	2420/299					✓	✓	✓	✓	✓	✓	2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ D1
6.64	218	5690	24000	6.3	277	1122/169					✓	✓	✓	✓	✓	✓	2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ C1
5.82	249	5680	24000	6.6	325	1892/325					✓	✓	✓	✓	✓	✓	2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ B1
4.55	319	5650	23600	7.3	517	132/29					✓	✓	✓	✓	✓	✓	2KJ3310 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ A1
<b>FD.149</b>																	
377.00	3.8	8000	65000	4.8	7.1	18495/49				✓	✓	✓	✓				2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ W1
323.04	4.5	8000	65000	4.8	9	9045/28				✓	✓	✓	✓				2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ V1
304.03	4.8	8000	65000	4.8	10	36180/119				✓	✓	✓	✓				2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ U1
285.00	5.1	8000	65000	4.8	11	285/1				✓	✓	✓	✓				2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ T1
252.64	5.7	8000	65000	4.8	14	3537/14				✓	✓	✓	✓				2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ S1
224.42	6.5	8000	65000	4.8	16	17280/77				✓	✓	✓	✓				2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ R1
202.50	7.2	8000	65000	4.8	19	405/2				✓	✓	✓	✓				2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ Q1
179.44	8.1	8000	65000	4.8	23	28890/161				✓	✓	✓	✓				2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ P1
158.91	9.1	8000	65000	4.8	26	5562/35				✓	✓	✓	✓	✓			2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ N1
141.43	10	8000	65000	4.8	31	990/7				✓	✓	✓	✓	✓	✓		2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ M1
126.73	11	8000	65000	4.8	37	6210/49				✓	✓	✓	✓	✓	✓	✓	2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ L1
112.36	13	8000	63600	4.8	43	18090/161				✓	✓	✓	✓	✓	✓	✓	2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ K1
99.18	15	8000	60700	4.8	53	4860/49				✓	✓	✓	✓	✓	✓	✓	2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ J1
87.20	17	8000	57700	4.8	63	14040/161				✓	✓	✓	✓	✓	✓	✓	2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ H1
78.98	18	8000	54800	4.8	71	3870/49				✓	✓	✓	✓	✓	✓	✓	2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ G1
68.76	21	8000	52600	4.9	85	11070/161					✓	✓	✓	✓	✓	✓	2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ F1
56.37	26	8000	49600	4.9	111	5130/91					✓	✓	✓	✓	✓	✓	2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ E1
50.01	29	8000	45600	5.2	73	37960/759				✓	✓	✓	✓	✓	✓	✓	2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ D1
45.30	32	8000	43300	5.2	83	31390/693				✓	✓	✓	✓	✓	✓	✓	2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ C1
39.43	37	7970	41400	5.2	102	29930/759					✓	✓	✓	✓	✓	✓	2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ B1
32.33	45	7510	39000	5.2	135	13870/429					✓	✓	✓	✓	✓	✓	2KJ3410 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ A1

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

## Parallel shaft geared motors

## Selection and ordering data

<i>i</i>	<i>n</i> <sub>2</sub> rpm	<i>T</i> <sub>2N</sub> Nm	<i>F</i> <sub>R2</sub> N	<i>φ</i> <sup>1)</sup>	<i>J</i> <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	<i>R</i> <sub>ex</sub>	Motor frame size										Article No. (Article No. supplement, see below)	
							63	71	80	90	100	112	132	160	180	200		225
<b>FZ.169</b>																		
<b>44.93</b>	32	12400	59900	4.2	68	3100/69						✓	✓	✓				<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>S1</b>
<b>41.07</b>	35	13600	55100	4.3	80	616/15						✓	✓	✓	✓			<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>R1</b>
<b>36.94</b>	39	13600	52500	4.3	95	665/18						✓	✓	✓	✓	✓		<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>Q1</b>
<b>33.02</b>	44	13600	49800	4.4	111	2080/63						✓	✓	✓	✓	✓		<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>P1</b>
<b>29.86</b>	49	13600	47500	4.4	133	2060/69						✓	✓	✓	✓	✓		<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>N1</b>
<b>26.35</b>	55	13600	44700	4.4	157	1660/63						✓	✓	✓	✓	✓	✓	<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>M1</b>
<b>23.48</b>	62	13600	42200	4.4	186	540/23						✓	✓	✓	✓	✓	✓	<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>L1</b>
<b>21.27</b>	68	13600	42300	4.3	206	1340/63						✓	✓	✓	✓	✓	✓	<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>K1</b>
<b>19.13</b>	76	13600	42800	4.3	249	440/23						✓	✓	✓	✓	✓	✓	<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>J1</b>
<b>15.90</b>	91	13500	43200	4.4	314	620/39						✓	✓	✓	✓	✓	✓	<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>H1</b>
<b>14.13</b>	103	12900	43200	4.4	386	212/15						✓	✓	✓	✓	✓	✓	<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>G1</b>
<b>11.26</b>	129	11700	42800	4.6	534	980/87						✓	✓	✓	✓	✓	✓	<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>F1</b>
<b>8.97</b>	162	10400	41900	4.8	710	260/29						✓	✓	✓	✓	✓	✓	<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>E1</b>
<b>8.07</b>	180	8350	39300	5.9	396	1364/169						✓	✓	✓	✓	✓	✓	<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>D1</b>
<b>7.18</b>	202	8310	38900	5.9	489	2332/325						✓	✓	✓	✓	✓	✓	<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>C1</b>
<b>5.72</b>	253	8210	37800	6.4	697	2156/377						✓	✓	✓	✓	✓	✓	<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>B1</b>
<b>4.55</b>	319	7300	36400	6.8	967	132/29						✓	✓	✓	✓	✓	✓	<b>2KJ3311</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>A1</b>
<b>FD.169</b>																		
<b>368.00</b>	3.9	13600	73500	4.4	18	106240/289						✓	✓	✓				<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>V1</b>
<b>343.01</b>	4.2	13600	73500	4.4	19	52480/153						✓	✓	✓				<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>U1</b>
<b>304.94</b>	4.8	13600	73500	4.4	24	5184/17						✓	✓	✓				<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>T1</b>
<b>273.80</b>	5.3	13600	73500	4.4	28	51200/187						✓	✓	✓				<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>S1</b>
<b>247.84</b>	5.9	13600	73500	4.4	33	12640/51						✓	✓	✓				<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>R1</b>
<b>217.70</b>	6.7	13600	73500	4.4	40	85120/391						✓	✓	✓				<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>Q1</b>
<b>197.27</b>	7.4	13600	73500	4.4	46	16768/85						✓	✓	✓	✓			<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>P1</b>
<b>175.69</b>	8.3	13600	73500	4.4	54	8960/51						✓	✓	✓	✓	✓		<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>N1</b>
<b>157.76</b>	9.2	13600	73500	4.4	64	56320/357						✓	✓	✓	✓	✓		<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>M1</b>
<b>140.77</b>	10	13600	73500	4.4	74	55040/391						✓	✓	✓	✓	✓		<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>L1</b>
<b>125.49</b>	12	13600	73500	4.4	86	6400/51						✓	✓	✓	✓	✓	✓	<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>K1</b>
<b>111.30</b>	13	13600	73500	4.4	101	2560/23						✓	✓	✓	✓	✓	✓	<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>J1</b>
<b>102.18</b>	14	13600	73500	4.4	113	12160/119						✓	✓	✓	✓	✓	✓	<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>H1</b>
<b>90.03</b>	16	13600	73500	4.4	132	35200/391						✓	✓	✓	✓	✓	✓	<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>G1</b>
<b>73.85</b>	20	13600	71200	4.5	176	960/13						✓	✓	✓	✓	✓	✓	<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>F1</b>
<b>64.75</b>	22	13600	67400	4.5	194	5504/85						✓	✓	✓	✓	✓	✓	<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>E1</b>
<b>50.63</b>	29	13600	60600	4.5	302	24960/493						✓	✓	✓	✓	✓	✓	<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>D1</b>
<b>46.55</b>	31	13600	58300	4.7	201	3026/65						✓	✓	✓	✓	✓	✓	<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>C1</b>
<b>40.82</b>	36	13600	55000	4.7	226	15308/375						✓	✓	✓	✓	✓	✓	<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>B1</b>
<b>31.92</b>	45	13600	53400	4.8	355	4628/145						✓	✓	✓	✓	✓	✓	<b>2KJ3411</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>A1</b>

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

**Selection and ordering data**

<i>i</i>	<i>n</i> <sub>2</sub> rpm	<i>T</i> <sub>2N</sub> Nm	<i>F</i> <sub>R2</sub> N	<i>φ</i> <sup>1)</sup>	<i>J</i> <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	<i>R</i> <sub>ex</sub>	Motor frame size										Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	180	200	
<b>FZ.189</b>																	
<b>37.93</b>	38	19000	76100	4.0	143	11948/315					✓	✓	✓	✓	✓	✓	<b>2KJ3312</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>L1</b>
<b>34.03</b>	43	19000	72500	4.1	169	3914/115					✓	✓	✓	✓	✓	✓	<b>2KJ3312</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>K1</b>
<b>30.41</b>	48	19000	68900	4.1	202	3193/105					✓	✓	✓	✓	✓	✓	<b>2KJ3312</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>J1</b>
<b>27.17</b>	53	19000	65400	4.1	241	9373/345					✓	✓	✓	✓	✓	✓	<b>2KJ3312</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>H1</b>
<b>24.85</b>	58	19000	62700	4.1	269	7828/315					✓	✓	✓	✓	✓	✓	<b>2KJ3312</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>G1</b>
<b>22.09</b>	66	19000	59300	4.1	321	7622/345					✓	✓	✓	✓	✓	✓	<b>2KJ3312</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>F1</b>
<b>18.75</b>	77	19000	54700	4.2	410	7313/390					✓	✓	✓	✓	✓	✓	<b>2KJ3312</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>E1</b>
<b>16.21</b>	89	19000	50800	4.2	495	6077/375					✓	✓	✓	✓	✓	✓	<b>2KJ3312</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>D1</b>
<b>13.26</b>	109	17600	48700	4.3	687	5768/435					✓	✓	✓	✓	✓	✓	<b>2KJ3312</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>C1</b>
<b>10.89</b>	133	16300	50000	4.4	906	4738/435							✓	✓	✓	✓	<b>2KJ3312</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>B1</b>
<b>8.47</b>	171	14700	50400	4.8	1333	3811/450										✓	<b>2KJ3312</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>A1</b>
<b>FD.189</b>																	
<b>347.35</b>	4.2	19000	110900	4.1	36	590499/1700					✓	✓	✓				<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>T1</b>
<b>310.76</b>	4.7	19000	110900	4.1	43	290563/935					✓	✓	✓				<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>S1</b>
<b>280.27</b>	5.2	19000	110900	4.1	49	571753/2040					✓	✓	✓				<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>R1</b>
<b>247.71</b>	5.9	19000	110900	4.1	61	290563/1173					✓	✓	✓				<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>Q1</b>
<b>226.42</b>	6.4	19000	110900	4.1	71	1443442/6375					✓	✓	✓	✓			<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>P1</b>
<b>203.69</b>	7.1	19000	110900	4.1	84	1246609/6120					✓	✓	✓	✓	✓		<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>N1</b>
<b>182.03</b>	8	19000	110900	4.1	98	139256/765					✓	✓	✓	✓	✓	✓	<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>M1</b>
<b>164.61</b>	8.8	19000	110900	4.1	117	965419/5865					✓	✓	✓	✓	✓	✓	<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>L1</b>
<b>145.28</b>	10	19000	110900	4.1	136	111137/765					✓	✓	✓	✓	✓	✓	<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>K1</b>
<b>129.45</b>	11	19000	110900	4.1	160	253071/1955					✓	✓	✓	✓	✓	✓	<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>J1</b>
<b>117.27</b>	12	19000	110900	4.1	175	89713/765					✓	✓	✓	✓	✓	✓	<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>H1</b>
<b>105.48</b>	14	19000	110900	4.1	210	206206/1955					✓	✓	✓	✓	✓	✓	<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>G1</b>
<b>87.65</b>	17	19000	108200	4.1	258	22351/255					✓	✓	✓	✓	✓	✓	<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>F1</b>
<b>77.92</b>	19	19000	103200	4.1	314	496769/6375					✓	✓	✓	✓	✓	✓	<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>E1</b>
<b>62.11</b>	23	19000	94000	4.2	422	459277/7395					✓	✓	✓	✓	✓	✓	<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>D1</b>
<b>49.43</b>	29	19000	85400	4.2	533	121849/2465							✓	✓	✓	✓	<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>C1</b>
<b>40.61</b>	36	19000	78400	4.4	478	35329/870					✓	✓	✓	✓	✓	✓	<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>B1</b>
<b>32.32</b>	45	19000	70800	4.4	621	9373/290							✓	✓	✓	✓	<b>2KJ3412</b> - ■ ■ ■ ■ ■ ■ - ■ ■ ■ ■ <b>A1</b>

**Article No. supplement**

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

Transmission ratios and torques for very low speeds

## Parallel shaft geared motors

### Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size								Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	
<b>FZ.29-Z19</b>															
1760	0.82	150	5220	-	0.02	1715912/975	✓	✓						2KJ3320 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ R1	
1558	0.93	150	5220	-	0.03	2532354/1625	✓	✓	✓					2KJ3320 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ Q1	
1354	1.1	150	5220	-	0.04	2200242/1625	✓	✓	✓					2KJ3320 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ P1	
1231	1.2	150	5220	-	0.05	400044/325	✓	✓	✓					2KJ3320 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ N1	
1047	1.4	150	5220	-	0.07	1702074/1625	✓	✓	✓					2KJ3320 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ M1	
952	1.5	150	5220	-	0.08	309468/325	✓	✓	✓					2KJ3320 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ L1	
830	1.7	150	5220	-	0.09	20757/25	✓	✓	✓					2KJ3320 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ K1	
743	2	150	5220	-	0.12	241536/325	✓	✓	✓					2KJ3320 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ J1	
660	2.2	150	5220	-	0.15	214489/325	✓	✓	✓					2KJ3320 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ H1	
609	2.4	150	5220	-	0.18	2573868/4225	✓	✓	✓					2KJ3320 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ G1	
529	2.7	150	5220	-	0.2	1203906/2275	✓	✓	✓					2KJ3320 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ F1	
460	3.2	150	5220	-	0.21	747252/1625	✓	✓	✓					2KJ3320 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ E1	
415	3.5	150	5220	-	0.27	20757/50	✓	✓	✓					2KJ3320 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ D1	
391	3.7	150	5220	-	0.32	9768/25	✓	✓	✓					2KJ3320 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ C1	
340.63	4.3	150	5220	-	0.36	110704/325	✓	✓	✓					2KJ3320 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ B1	
314.27	4.6	150	5220	-	0.19	428978/1365	✓	✓	✓					2KJ3320 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ A1	
<b>FZ.29-D19</b>															
8237	0.18	150	5220	-	0.03	93697098/11375	✓	✓						2KJ3321 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ P1	
7157	0.20	150	5220	-	0.04	81408954/11375	✓	✓						2KJ3321 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ N1	
6506	0.22	150	5220	-	0.04	14801628/2275	✓	✓						2KJ3321 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ M1	
5536	0.26	150	5220	-	0.06	62976738/11375	✓	✓						2KJ3321 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ L1	
5033	0.29	150	5220	-	0.07	11450316/2275	✓	✓						2KJ3321 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ K1	
4389	0.33	150	5220	-	0.08	768009/175	✓	✓						2KJ3321 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ J1	
3928	0.37	150	5220	-	0.11	8936832/2275	✓	✓						2KJ3321 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ H1	
3488	0.42	150	5220	-	0.13	7936093/2275	✓	✓						2KJ3321 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ G1	
3220	0.45	150	5220	-	0.16	95233116/29575	✓	✓						2KJ3321 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ F1	
2797	0.52	150	5220	-	0.17	44544522/15925	✓	✓						2KJ3321 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ E1	
2431	0.60	150	5220	-	0.18	27648324/11375	✓	✓						2KJ3321 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ D1	
2194	0.66	150	5220	-	0.22	768009/350	✓	✓						2KJ3321 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ C1	
2065	0.70	150	5220	-	0.26	361416/175	✓	✓						2KJ3321 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ B1	
1800	0.81	150	5220	-	0.29	4096048/2275	✓	✓						2KJ3321 - ■ ■ ■ ■ ■ ■ - ■ ■ ■ A1	

#### Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

## Parallel shaft geared motors

## Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size								Article No. (Article No. supplement, see below)								
							63	71	80	90	100	112	132	160									
<b>FZ.39-Z19</b>																							
2028	0.71	230	6040	-	0.02	922746/455	✓	✓						2KJ3322	-	■	■	■	■	-	■	■	T1
1796	0.81	230	6040	-	0.03	8170767/4550	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	S1
1560	0.93	230	6040	-	0.04	7099191/4550	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	R1
1418	1.0	230	6040	-	0.05	645381/455	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	Q1
1207	1.2	230	6040	-	0.07	5491827/4550	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	P1
1097	1.3	230	6040	-	0.08	499257/455	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	N1
957	1.5	230	6040	-	0.09	133947/140	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	M1
856	1.7	230	6040	-	0.12	389664/455	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	L1
761	1.9	230	6040	-	0.15	1384119/1820	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	K1
702	2.1	230	6040	-	0.18	4152357/5915	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	J1
610	2.4	230	6040	-	0.2	3884463/6370	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	H1
530	2.7	230	6040	-	0.21	1205523/2275	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	G1
478	3.0	230	6040	-	0.27	133947/280	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	F1
450	3.2	230	6040	-	0.32	267894/595	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	E1
393	3.7	230	6040	-	0.36	178596/455	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	D1
362	4.0	230	6040	-	0.19	461373/1274	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	C1
314.58	4.6	230	6040	-	0.22	431607/1372	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	B1
273.36	5.3	230	6040	-	0.23	133947/490	✓	✓	✓					2KJ3322	-	■	■	■	■	-	■	■	A1
<b>FZ.39-D19</b>																							
8247	0.18	230	6040	-	0.04	262670067/31850	✓	✓						2KJ3323	-	■	■	■	■	-	■	■	N1
7497	0.19	230	6040	-	0.04	23879097/3185	✓	✓						2KJ3323	-	■	■	■	■	-	■	■	M1
6380	0.23	230	6040	-	0.06	203197599/31850	✓	✓						2KJ3323	-	■	■	■	■	-	■	■	L1
5800	0.25	230	6040	-	0.07	18472509/3185	✓	✓						2KJ3323	-	■	■	■	■	-	■	■	K1
5057	0.29	230	6040	-	0.08	4956039/980	✓	✓						2KJ3323	-	■	■	■	■	-	■	■	J1
4527	0.32	230	6040	-	0.11	14417568/3185	✓	✓						2KJ3323	-	■	■	■	■	-	■	■	H1
4020	0.36	230	6040	-	0.13	51212403/12740	✓	✓						2KJ3323	-	■	■	■	■	-	■	■	G1
3711	0.39	230	6040	-	0.16	153637209/41405	✓	✓						2KJ3323	-	■	■	■	■	-	■	■	F1
3223	0.45	230	6040	-	0.17	143725131/44590	✓	✓						2KJ3323	-	■	■	■	■	-	■	■	E1
2801	0.52	230	6040	-	0.18	44604351/15925	✓	✓						2KJ3323	-	■	■	■	■	-	■	■	D1
2529	0.57	230	6040	-	0.22	4956039/1960	✓	✓						2KJ3323	-	■	■	■	■	-	■	■	C1
2380	0.61	230	6040	-	0.26	9912078/4165	✓	✓						2KJ3323	-	■	■	■	■	-	■	■	B1
2075	0.7	230	6040	-	0.29	6608052/3185	✓	✓						2KJ3323	-	■	■	■	■	-	■	■	A1

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

Transmission ratios and torques for very low speeds

## Parallel shaft geared motors

### Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size								Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	
<b>FZ.49-Z19</b>															
2149	0.67	480	7960	-	0.02	1256926/585	✓	✓						2KJ3324 - ■ ■ ■ ■ ■ - ■ ■ ■ J1	
1903	0.76	480	7960	-	0.03	1236653/650	✓	✓	✓					2KJ3324 - ■ ■ ■ ■ ■ - ■ ■ ■ H1	
1653	0.88	480	7960	-	0.04	1074469/650	✓	✓	✓					2KJ3324 - ■ ■ ■ ■ ■ - ■ ■ ■ G1	
1503	0.96	480	7960	-	0.05	97679/65	✓	✓	✓					2KJ3324 - ■ ■ ■ ■ ■ - ■ ■ ■ F1	
1279	1.1	480	7960	-	0.07	831193/650	✓	✓	✓					2KJ3324 - ■ ■ ■ ■ ■ - ■ ■ ■ E1	
1163	1.2	480	7960	-	0.08	75563/65	✓	✓	✓					2KJ3324 - ■ ■ ■ ■ ■ - ■ ■ ■ D1	
1014	1.4	480	7960	-	0.09	20273/20	✓	✓	✓					2KJ3324 - ■ ■ ■ ■ ■ - ■ ■ ■ C1	
907	1.6	480	7960	-	0.13	58976/65	✓	✓	✓					2KJ3324 - ■ ■ ■ ■ ■ - ■ ■ ■ B1	
806	1.8	480	7960	-	0.15	628463/780	✓	✓	✓					2KJ3324 - ■ ■ ■ ■ ■ - ■ ■ ■ A1	
<b>FZ.49-D19</b>															
11357	0.13	480	7960	-	0.02	46506262/4095	✓	✓						2KJ3325 - ■ ■ ■ ■ ■ - ■ ■ ■ Q1	
10056	0.14	480	7960	-	0.03	45756161/4550	✓	✓						2KJ3325 - ■ ■ ■ ■ ■ - ■ ■ ■ P1	
8737	0.17	480	7960	-	0.04	39755353/4550	✓	✓						2KJ3325 - ■ ■ ■ ■ ■ - ■ ■ ■ N1	
7943	0.18	480	7960	-	0.04	3614123/455	✓	✓						2KJ3325 - ■ ■ ■ ■ ■ - ■ ■ ■ M1	
6759	0.21	480	7960	-	0.06	30754141/4550	✓	✓						2KJ3325 - ■ ■ ■ ■ ■ - ■ ■ ■ L1	
6145	0.24	480	7960	-	0.07	2795831/455	✓	✓						2KJ3325 - ■ ■ ■ ■ ■ - ■ ■ ■ K1	
5358	0.27	480	7960	-	0.08	750101/140	✓	✓						2KJ3325 - ■ ■ ■ ■ ■ - ■ ■ ■ J1	
4796	0.3	480	7960	-	0.11	2182112/455	✓	✓						2KJ3325 - ■ ■ ■ ■ ■ - ■ ■ ■ H1	
4259	0.34	480	7960	-	0.13	23253131/5460	✓	✓						2KJ3325 - ■ ■ ■ ■ ■ - ■ ■ ■ G1	
3931	0.37	480	7960	-	0.16	23253131/5915	✓	✓						2KJ3325 - ■ ■ ■ ■ ■ - ■ ■ ■ F1	
3415	0.42	480	7960	-	0.17	21752929/6370	✓	✓						2KJ3325 - ■ ■ ■ ■ ■ - ■ ■ ■ E1	
2967	0.49	480	7960	-	0.18	6750909/2275	✓	✓						2KJ3325 - ■ ■ ■ ■ ■ - ■ ■ ■ D1	
2679	0.54	480	7960	-	0.22	750101/280	✓	✓						2KJ3325 - ■ ■ ■ ■ ■ - ■ ■ ■ C1	
2521	0.58	480	7960	-	0.26	1500202/595	✓	✓						2KJ3325 - ■ ■ ■ ■ ■ - ■ ■ ■ B1	
2198	0.66	480	7960	-	0.29	3000404/1365	✓	✓						2KJ3325 - ■ ■ ■ ■ ■ - ■ ■ ■ A1	
<b>FD.49-Z19</b>															
752	1.9	480	7960	-	0.21	3762/5	✓	✓	✓					2KJ3424 - ■ ■ ■ ■ ■ - ■ ■ ■ J1	
679	2.1	480	7960	-	0.28	2717/4	✓	✓	✓					2KJ3424 - ■ ■ ■ ■ ■ - ■ ■ ■ H1	
639	2.3	480	7960	-	0.32	10868/17	✓	✓	✓					2KJ3424 - ■ ■ ■ ■ ■ - ■ ■ ■ G1	
557	2.6	480	7960	-	0.37	1672/3	✓	✓	✓					2KJ3424 - ■ ■ ■ ■ ■ - ■ ■ ■ F1	
514	2.8	480	7960	-	0.20	32395/63	✓	✓	✓					2KJ3424 - ■ ■ ■ ■ ■ - ■ ■ ■ E1	
447	3.2	480	7960	-	0.23	393965/882	✓	✓	✓					2KJ3424 - ■ ■ ■ ■ ■ - ■ ■ ■ D1	
388	3.7	480	7960	-	0.25	2717/7	✓	✓	✓					2KJ3424 - ■ ■ ■ ■ ■ - ■ ■ ■ C1	
350	4.1	480	7960	-	0.32	176605/504	✓	✓	✓					2KJ3424 - ■ ■ ■ ■ ■ - ■ ■ ■ B1	
329.79	4.4	480	7960	-	0.37	353210/1071	✓	✓	✓					2KJ3424 - ■ ■ ■ ■ ■ - ■ ■ ■ A1	
<b>FD.49-D19</b>															
14685	0.10	480	7960	-	0.07	14699730/1001	✓	✓						2KJ3425 - ■ ■ ■ ■ ■ - ■ ■ ■ C1	
12805	0.11	480	7960	-	0.08	179265/14	✓	✓						2KJ3425 - ■ ■ ■ ■ ■ - ■ ■ ■ B1	
11461	0.13	480	7960	-	0.11	11472960/1001	✓	✓						2KJ3425 - ■ ■ ■ ■ ■ - ■ ■ ■ A1	

#### Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

## Parallel shaft geared motors

## Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub> -	Motor frame size								Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	
<b>FZ.69-Z19</b>															
2262	0.64	600	10800	-	0.02	264616/117	✓	✓						2KJ3326 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ F1	
2003	0.72	600	10800	-	0.03	130174/65	✓	✓	✓					2KJ3326 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ E1	
1740	0.83	600	10800	-	0.04	113102/65	✓	✓	✓					2KJ3326 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ D1	
1582	0.92	600	10800	-	0.05	20564/13	✓	✓	✓					2KJ3326 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ C1	
1346	1.1	600	10800	-	0.07	87494/65	✓	✓	✓					2KJ3326 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ B1	
1224	1.2	600	10800	-	0.08	15908/13	✓	✓	✓					2KJ3326 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ A1	
<b>FZ.69-D19</b>															
11955	0.12	600	10800	-	0.02	9790792/819	✓	✓						2KJ3327 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ Q1	
10586	0.14	600	10800	-	0.03	4816438/455	✓	✓						2KJ3327 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ P1	
9197	0.16	600	10800	-	0.04	4184774/455	✓	✓						2KJ3327 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ N1	
8361	0.17	600	10800	-	0.04	760868/91	✓	✓						2KJ3327 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ M1	
7115	0.20	600	10800	-	0.06	3237278/455	✓	✓						2KJ3327 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ L1	
6468	0.22	600	10800	-	0.07	588596/91	✓	✓						2KJ3327 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ K1	
5640	0.26	600	10800	-	0.08	39479/7	✓	✓						2KJ3327 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ J1	
5048	0.29	600	10800	-	0.11	459392/91	✓	✓						2KJ3327 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ H1	
4483	0.32	600	10800	-	0.13	1223849/273	✓	✓						2KJ3327 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ G1	
4138	0.35	600	10800	-	0.16	4895396/1183	✓	✓						2KJ3327 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ F1	
3595	0.4	600	10800	-	0.17	2289782/637	✓	✓						2KJ3327 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ E1	
3124	0.46	600	10800	-	0.18	1421244/455	✓	✓						2KJ3327 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ D1	
2820	0.51	600	10800	-	0.22	39479/14	✓	✓						2KJ3327 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ C1	
2654	0.55	600	10800	-	0.26	315832/119	✓	✓						2KJ3327 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ B1	
2314	0.63	600	10800	-	0.29	631664/273	✓	✓						2KJ3327 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ A1	
<b>FD.69-Z19</b>															
1200	1.2	600	10800	-	0.32	1200/1	✓	✓	✓					2KJ3426 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ M1	
1046	1.4	600	10800	-	0.37	13600/13	✓	✓	✓					2KJ3426 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ L1	
965	1.5	600	10800	-	0.19	263500/273	✓	✓	✓					2KJ3426 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ K1	
838	1.7	600	10800	-	0.22	123250/147	✓	✓	✓					2KJ3426 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ J1	
729	2.0	600	10800	-	0.23	5100/7	✓	✓	✓					2KJ3426 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ H1	
658	2.2	600	10800	-	0.30	27625/42	✓	✓	✓					2KJ3426 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ G1	
619	2.3	600	10800	-	0.35	13000/21	✓	✓	✓					2KJ3426 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ F1	
587	2.5	600	10800	-	0.37	1760/3	✓	✓	✓					2KJ3426 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ E1	
541	2.7	600	10800	-	0.20	34100/63	✓	✓	✓					2KJ3426 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ D1	
470	3.1	600	10800	-	0.23	207350/441	✓	✓	✓					2KJ3426 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ C1	
409	3.5	600	10800	-	0.25	2860/7	✓	✓	✓					2KJ3426 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ B1	
369	3.9	600	10800	-	0.32	46475/126	✓	✓	✓					2KJ3426 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ A1	
<b>FD.69-D19</b>															
13479	0.11	600	10800	-	0.08	94350/7	✓	✓						2KJ3427 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ B1	
12065	0.12	600	10800	-	0.11	12076800/1001	✓	✓						2KJ3427 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ A1	

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

Transmission ratios and torques for very low speeds

## Parallel shaft geared motors

### Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size								Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	
<b>FZ.79-Z39</b>															
2687	0.54	1000	13600	-	0.06	13059137/4860	✓	✓							2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ S2
2389	0.61	1000	13600	-	0.07	6450899/2700	✓	✓	✓	✓					2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ R1
2098	0.69	1000	13600	-	0.08	157339/75	✓	✓	✓	✓					2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ Q1
1907	0.76	1000	13600	-	0.10	314678/165	✓	✓	✓	✓					2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ P1
1632	0.89	1000	13600	-	0.12	1101373/675	✓	✓	✓	✓					2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ N1
1483	0.98	1000	13600	-	0.14	2202746/1485	✓	✓	✓	✓					2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ M1
1311	1.1	1000	13600	-	0.17	157339/120	✓	✓	✓	✓	✓				2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ L1
1192	1.2	1000	13600	-	0.22	157339/132	✓	✓	✓	✓	✓				2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ K1
1044	1.4	1000	13600	-	0.26	6765577/6480	✓	✓	✓	✓	✓				2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ J1
964	1.5	1000	13600	-	0.31	520429/540	✓	✓	✓	✓	✓				2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ H1
853	1.7	1000	13600	-	0.36	921557/1080	✓	✓	✓	✓	✓				2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ G1
710	2.0	1000	13600	-	0.48	2045407/2880	✓	✓	✓	✓	✓				2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ F1
668	2.2	1000	13600	-	0.56	2045407/3060	✓	✓	✓	✓	✓				2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ E1
599	2.4	1000	13600	-	0.61	5821543/9720	✓	✓	✓	✓	✓				2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ D1
510	2.8	1000	13600	-	0.79	1101373/2160	✓	✓	✓	✓	✓				2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ C1
437	3.3	1000	13600	-	1.03	157339/360			✓	✓	✓				2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ B1
376	3.9	1000	13600	-	1.31	4877509/12960			✓	✓	✓				2KJ3328 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ A1
<b>FZ.79-D39</b>															
11301	0.13	1000	13600	-	0.03	155608271/13770	✓	✓							2KJ3330 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ N1
10023	0.14	1000	13600	-	0.05	6765577/675	✓	✓	✓	✓					2KJ3330 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ M1
8696	0.17	1000	13600	-	0.05	399169043/45900	✓	✓	✓	✓					2KJ3330 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ L1
7906	0.18	1000	13600	-	0.07	399169043/50490	✓	✓	✓	✓					2KJ3330 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ K1
6780	0.21	1000	13600	-	0.08	155608271/22950	✓	✓	✓	✓					2KJ3330 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ J1
6164	0.24	1000	13600	-	0.10	155608271/25245	✓	✓	✓	✓					2KJ3330 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ H1
5405	0.27	1000	13600	-	0.12	74421347/13770	✓	✓	✓	✓	✓				2KJ3330 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ G1
4824	0.30	1000	13600	-	0.15	13531154/2805	✓	✓	✓	✓	✓				2KJ3330 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ F1
4299	0.34	1000	13600	-	0.17	47359039/11016	✓	✓	✓	✓	✓				2KJ3330 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ E1
3968	0.37	1000	13600	-	0.21	3643003/918	✓	✓	✓	✓	✓				2KJ3330 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ D1
3474	0.42	1000	13600	-	0.25	10631621/3060	✓	✓	✓	✓	✓				2KJ3330 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ C1
3046	0.48	1000	13600	-	0.23	209732887/68850	✓	✓	✓	✓	✓				2KJ3330 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ B1
2764	0.52	1000	13600	-	0.33	6765577/2448	✓	✓	✓	✓	✓				2KJ3330 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ A1
<b>FD.79-D39</b>															
17865	0.08	1000	13600	-	0.08	583103521/32640	✓	✓	✓	✓					2KJ3430 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ E1
16241	0.09	1000	13600	-	0.10	53009411/3264	✓	✓	✓	✓					2KJ3430 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ D1
14240	0.10	1000	13600	-	0.12	278875597/19584	✓	✓	✓	✓	✓				2KJ3430 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ C1
12710	0.11	1000	13600	-	0.15	6914271/544	✓	✓	✓	✓	✓				2KJ3430 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ B1
11327	0.13	1000	13600	-	0.17	887331445/78336	✓	✓	✓	✓	✓				2KJ3430 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ A1

#### Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

## Parallel shaft geared motors

## Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size								Article No. (Article No. supplement, see below)								
							63	71	80	90	100	112	132	160									
<b>FZ.89-Z39</b>																							
3453	0.42	1850	17400	-	0.06	1398467/405	✓	✓						2KJ3331	-	■	■	■	■	-	■	■	P1
3070	0.47	1850	17400	-	0.07	690809/225	✓	✓	✓	✓				2KJ3331	-	■	■	■	■	-	■	■	N1
2696	0.54	1850	17400	-	0.08	67396/25	✓	✓	✓	✓				2KJ3331	-	■	■	■	■	-	■	■	M1
2451	0.59	1850	17400	-	0.10	134792/55	✓	✓	✓	✓				2KJ3331	-	■	■	■	■	-	■	■	L1
2097	0.69	1850	17400	-	0.12	471772/225	✓	✓	✓	✓				2KJ3331	-	■	■	■	■	-	■	■	K1
1906	0.76	1850	17400	-	0.14	943544/495	✓	✓	✓	✓				2KJ3331	-	■	■	■	■	-	■	■	J1
1685	0.86	1850	17400	-	0.17	16849/10	✓	✓	✓	✓	✓			2KJ3331	-	■	■	■	■	-	■	■	H1
1532	0.95	1850	17400	-	0.22	16849/11	✓	✓	✓	✓	✓			2KJ3331	-	■	■	■	■	-	■	■	G1
1342	1.1	1850	17400	-	0.26	724507/540	✓	✓	✓	✓	✓			2KJ3331	-	■	■	■	■	-	■	■	F1
1238	1.2	1850	17400	-	0.31	724507/585	✓	✓	✓	✓	✓			2KJ3331	-	■	■	■	■	-	■	■	E1
1097	1.3	1850	17400	-	0.36	98687/90	✓	✓	✓	✓	✓			2KJ3331	-	■	■	■	■	-	■	■	D1
913	1.6	1850	17400	-	0.48	219037/240	✓	✓	✓	✓	✓			2KJ3331	-	■	■	■	■	-	■	■	C1
859	1.7	1850	17400	-	0.56	219037/255	✓	✓	✓	✓	✓			2KJ3331	-	■	■	■	■	-	■	■	B1
770	1.9	1850	17400	-	0.61	623413/810	✓	✓	✓	✓	✓			2KJ3331	-	■	■	■	■	-	■	■	A1
<b>FZ.89-D39</b>																							
14522	0.1	1850	17400	-	0.03	33327322/2295	✓	✓						2KJ3332	-	■	■	■	■	-	■	■	N1
12880	0.11	1850	17400	-	0.05	2898028/225	✓	✓	✓	✓				2KJ3332	-	■	■	■	■	-	■	■	M1
11175	0.13	1850	17400	-	0.05	42745913/3825	✓	✓	✓	✓				2KJ3332	-	■	■	■	■	-	■	■	L1
10159	0.14	1850	17400	-	0.07	85491826/8415	✓	✓	✓	✓				2KJ3332	-	■	■	■	■	-	■	■	K1
8713	0.17	1850	17400	-	0.08	33327322/3825	✓	✓	✓	✓				2KJ3332	-	■	■	■	■	-	■	■	J1
7921	0.18	1850	17400	-	0.10	66654644/8415	✓	✓	✓	✓				2KJ3332	-	■	■	■	■	-	■	■	H1
6945	0.21	1850	17400	-	0.12	15939154/2295	✓	✓	✓	✓	✓			2KJ3332	-	■	■	■	■	-	■	■	G1
6299	0.23	1850	17400	-	0.15	5796056/935	✓	✓	✓	✓	✓			2KJ3332	-	■	■	■	■	-	■	■	F1
5525	0.26	1850	17400	-	0.17	5071549/918	✓	✓	✓	✓	✓			2KJ3332	-	■	■	■	■	-	■	■	E1
5100	0.28	1850	17400	-	0.21	10143098/1989	✓	✓	✓	✓	✓			2KJ3332	-	■	■	■	■	-	■	■	D1
4465	0.32	1850	17400	-	0.25	1138511/255	✓	✓	✓	✓	✓			2KJ3332	-	■	■	■	■	-	■	■	C1
3915	0.37	1850	17400	-	0.23	44919434/11475	✓	✓	✓	✓	✓			2KJ3332	-	■	■	■	■	-	■	■	B1
3552	0.41	1850	17400	-	0.33	724507/204	✓	✓	✓	✓	✓			2KJ3332	-	■	■	■	■	-	■	■	A1
<b>FD.89-Z39</b>																							
648	2.2	1850	17400	-	0.75	47389680/73117	✓	✓	✓	✓	✓			2KJ3431	-	■	■	■	■	-	■	■	E1
581	2.5	1850	17400	-	0.85	7493240/12903	✓	✓	✓	✓	✓			2KJ3431	-	■	■	■	■	-	■	■	D1
494	2.9	1850	17400	-	1.12	2126460/4301	✓	✓	✓	✓	✓			2KJ3431	-	■	■	■	■	-	■	■	C1
424	3.4	1850	17400	-	1.48	1822680/4301			✓	✓	✓			2KJ3431	-	■	■	■	■	-	■	■	B1
365	4	1850	17400	-	1.91	1569530/4301			✓	✓	✓			2KJ3431	-	■	■	■	■	-	■	■	A1
<b>FD.89-D39</b>																							
17750	0.08	1850	17400	-	0.12	15389528/867	✓	✓	✓	✓	✓			2KJ3432	-	■	■	■	■	-	■	■	B1
15843	0.09	1850	17400	-	0.15	50365728/3179	✓	✓	✓	✓	✓			2KJ3432	-	■	■	■	■	-	■	■	A1

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

Transmission ratios and torques for very low speeds

## Parallel shaft geared motors

### Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size								Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	
<b>FD.109-Z39</b>															
7014	0.21	3100	25000	-	0.06	2940126098/419175	✓	✓							2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ A2
6237	0.23	3100	25000	-	0.07	1452351446/232875	✓	✓	✓	✓					2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ X1
5476	0.26	3100	25000	-	0.09	141692824/25875	✓	✓	✓	✓					2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ W1
4978	0.29	3100	25000	-	0.10	283385648/56925	✓	✓	✓	✓					2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ V1
4259	0.34	3100	25000	-	0.12	991849768/232875	✓	✓	✓	✓					2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ U1
3872	0.37	3100	25000	-	0.15	1983699536/512325	✓	✓	✓	✓					2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ T1
3423	0.42	3100	25000	-	0.17	17711603/5175	✓	✓	✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ S1
3111	0.47	3100	25000	-	0.23	35423206/11385	✓	✓	✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ R1
2725	0.53	3100	25000	-	0.27	761598929/279450	✓	✓	✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ Q1
2516	0.58	3100	25000	-	0.32	117169066/46575	✓	✓	✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ P1
2227	0.65	3100	25000	-	0.38	103739389/46575	✓	✓	✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ N1
1854	0.78	3100	25000	-	0.50	230250839/124200	✓	✓	✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ M1
1745	0.83	3100	25000	-	0.59	27088334/15525	✓	✓	✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ L1
1563	0.93	3100	25000	-	0.64	655329311/419175	✓	✓	✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ K1
1331	1.1	3100	25000	-	0.84	123981221/93150	✓	✓	✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ J1
1141	1.3	3100	25000	-	1.10	17711603/15525			✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ H1
982	1.5	3100	25000	-	1.40	549059693/558900			✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ G1
810	1.8	3100	25000	-	0.73	154343969/190440	✓	✓	✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ F1
763	1.9	3100	25000	-	0.84	18158114/23805	✓	✓	✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ E1
683	2.1	3100	25000	-	0.96	439286681/642735	✓	✓	✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ D1
582	2.5	3100	25000	-	1.28	83108291/142830	✓	✓	✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ C1
499	2.9	3100	25000	-	1.70	11872613/23805			✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ B1
429	3.4	3100	25000	-	2.20	368051003/856980			✓	✓	✓				2KJ3433 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ A1
<b>FD.109-D39</b>															
22701	0.06	3100	25000	-	0.05	5286392566/232875	✓	✓	✓	✓					2KJ3434 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ L1
20637	0.07	3100	25000	-	0.07	10572785132/512325	✓	✓	✓	✓					2KJ3434 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ K1
17699	0.08	3100	25000	-	0.08	179199748/10125	✓	✓	✓	✓					2KJ3434 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ J1
16090	0.09	3100	25000	-	0.10	358399496/22275	✓	✓	✓	✓					2KJ3434 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ H1
14108	0.10	3100	25000	-	0.12	1971197228/139725	✓	✓	✓	✓	✓				2KJ3434 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ G1
12592	0.12	3100	25000	-	0.15	716798992/56925	✓	✓	✓	✓	✓				2KJ3434 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ F1
11222	0.13	3100	25000	-	0.18	313599559/27945	✓	✓	✓	✓	✓				2KJ3434 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ E1
10359	0.14	3100	25000	-	0.21	96492172/9315	✓	✓	✓	✓	✓				2KJ3434 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ D1
9069	0.16	3100	25000	-	0.25	140799802/15525	✓	✓	✓	✓	✓				2KJ3434 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ C1
7952	0.18	3100	25000	-	0.23	5555192188/698625	✓	✓	✓	✓	✓				2KJ3434 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ B1
7214	0.2	3100	25000	-	0.33	44799937/6210	✓	✓	✓	✓	✓				2KJ3434 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ A1

#### Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

## Parallel shaft geared motors

## Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size								Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	
<b>FD.129-Z49</b>															
6604	0.22	4850	37200	-	0.18	177513589/26880	✓	✓	✓	✓				2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ B2	
6004	0.24	4850	37200	-	0.21	16137599/2688	✓	✓	✓	✓				2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ A2	
5106	0.28	4850	37200	-	0.27	9150185/1792	✓	✓	✓	✓				2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ X1	
4642	0.31	4850	37200	-	0.32	4159175/896	✓	✓	✓	✓				2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ W1	
4142	0.35	4850	37200	-	0.38	133592701/32256	✓	✓	✓	✓	✓			2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ V1	
3714	0.39	4850	37200	-	0.45	831835/224	✓	✓	✓	✓	✓	✓		2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ U1	
3347	0.43	4850	37200	-	0.53	107972183/32256	✓	✓	✓	✓	✓	✓		2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ T1	
3090	0.47	4850	37200	-	0.63	107972183/34944	✓	✓	✓	✓	✓	✓		2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ S1	
2821	0.51	4850	37200	-	0.75	53071073/18816	✓	✓	✓	✓	✓	✓	✓	2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ R1	
2340	0.62	4850	37200	-	0.95	100652035/43008	✓	✓	✓	✓	✓	✓	✓	2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ Q1	
2203	0.66	4850	37200	-	1.10	100652035/45696	✓	✓	✓	✓	✓	✓	✓	2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ P1	
2080	0.70	4850	37200	-	1.25	100652035/48384	✓	✓	✓	✓	✓	✓	✓	2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ N1	
1770	0.82	4850	37200	-	1.53	23790481/13440	✓	✓	✓	✓	✓	✓	✓	2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ M1	
1516	0.96	4850	37200	-	1.89	1164569/768	✓	✓	✓	✓	✓	✓	✓	2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ L1	
1333	1.1	4850	37200	-	2.3	86011739/64512			✓	✓	✓	✓	✓	2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ K1	
1125	1.3	4850	37200	-	2.9	34770703/30912			✓	✓	✓	✓	✓	2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ J1	
980	1.5	4850	37200	-	3.9	5490111/5600			✓	✓	✓	✓	✓	2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ H1	
967	1.5	4850	37200	-	1.51	27620791/28560	✓	✓	✓	✓	✓	✓	✓	2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ G1	
913	1.6	4850	37200	-	1.71	27620791/30240	✓	✓	✓	✓	✓	✓	✓	2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ F1	
777	1.9	4850	37200	-	2.2	32642753/42000	✓	✓	✓	✓	✓	✓	✓	2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ E1	
666	2.2	4850	37200	-	2.8	1597897/2400			✓	✓	✓	✓	✓	2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ D1	
585	2.5	4850	37200	-	3.5	118016107/201600			✓	✓	✓	✓	✓	2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ C1	
494	2.9	4850	37200	-	4.5	47708639/96600			✓	✓	✓	✓	✓	2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ B1	
430	3.4	4850	37200	-	6.0	7532943/17500			✓	✓	✓	✓	✓	2KJ3435 - ■ ■ ■ ■ ■ - ■ ■ ■ A1	
<b>FD.129-D49</b>															
27777	0.05	4850	37200	-	0.08	31110629/1120	✓	✓	✓	✓				2KJ3436 - ■ ■ ■ ■ ■ - ■ ■ ■ N1	
25252	0.06	4850	37200	-	0.10	2828239/112	✓	✓	✓	✓				2KJ3436 - ■ ■ ■ ■ ■ - ■ ■ ■ M1	
21605	0.07	4850	37200	-	0.12	31110629/1440	✓	✓	✓	✓				2KJ3436 - ■ ■ ■ ■ ■ - ■ ■ ■ L1	
19641	0.07	4850	37200	-	0.14	2828239/144	✓	✓	✓	✓				2KJ3436 - ■ ■ ■ ■ ■ - ■ ■ ■ K1	
17361	0.08	4850	37200	-	0.17	31110629/1792	✓	✓	✓	✓	✓			2KJ3436 - ■ ■ ■ ■ ■ - ■ ■ ■ J1	
15783	0.09	4850	37200	-	0.22	14141195/896	✓	✓	✓	✓	✓			2KJ3436 - ■ ■ ■ ■ ■ - ■ ■ ■ H1	
13824	0.10	4850	37200	-	0.26	1337757047/96768	✓	✓	✓	✓	✓			2KJ3436 - ■ ■ ■ ■ ■ - ■ ■ ■ G1	
12761	0.11	4850	37200	-	0.31	1337757047/104832	✓	✓	✓	✓	✓			2KJ3436 - ■ ■ ■ ■ ■ - ■ ■ ■ F1	
11298	0.13	4850	37200	-	0.37	1275535789/112896	✓	✓	✓	✓	✓	✓		2KJ3436 - ■ ■ ■ ■ ■ - ■ ■ ■ E1	
9404	0.15	4850	37200	-	0.50	404438177/43008	✓	✓	✓	✓	✓	✓		2KJ3436 - ■ ■ ■ ■ ■ - ■ ■ ■ D1	
8851	0.16	4850	37200	-	0.59	23790481/2688	✓	✓	✓	✓	✓	✓		2KJ3436 - ■ ■ ■ ■ ■ - ■ ■ ■ C1	
7930	0.18	4850	37200	-	0.65	1151093273/145152	✓	✓	✓	✓	✓	✓		2KJ3436 - ■ ■ ■ ■ ■ - ■ ■ ■ B1	
6751	0.21	4850	37200	-	0.85	31110629/4608	✓	✓	✓	✓	✓	✓		2KJ3436 - ■ ■ ■ ■ ■ - ■ ■ ■ A1	

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

Transmission ratios and torques for very low speeds

## Parallel shaft geared motors

### Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size								Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	
<b>FD.149-Z49</b>															
6608	0.22	8000	65000	-	0.18	2590191/392	✓	✓	✓	✓					2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ B2
6007	0.24	8000	65000	-	0.22	12950955/2156	✓	✓	✓	✓					2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ A2
5109	0.28	8000	65000	-	0.28	2002725/392	✓	✓	✓	✓					2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ X1
4545	0.32	8000	65000	-	0.34	10013625/2156	✓	✓	✓	✓					2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ W1
4144	0.35	8000	65000	-	0.39	3248865/784	✓	✓	✓	✓	✓				2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ V1
3716	0.39	8000	65000	-	0.47	2002725/539	✓	✓	✓	✓	✓	✓			2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ U1
3349	0.43	8000	65000	-	0.55	2625795/784	✓	✓	✓	✓	✓	✓			2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ T1
3092	0.47	8000	65000	-	0.66	7877385/2548	✓	✓	✓	✓	✓	✓			2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ S1
2822	0.51	8000	65000	-	0.78	3871935/1372	✓	✓	✓	✓	✓	✓	✓		2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ R1
2342	0.62	8000	65000	-	1.0	7343325/3136	✓	✓	✓	✓	✓	✓	✓		2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ Q1
2204	0.66	8000	65000	-	1.16	7343325/3332	✓	✓	✓	✓	✓	✓	✓		2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ P1
2081	0.70	8000	65000	-	1.31	815925/392	✓	✓	✓	✓	✓	✓	✓		2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ N1
1771	0.82	8000	65000	-	1.62	347139/196	✓	✓	✓	✓	✓	✓	✓		2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ M1
1517	0.96	8000	65000	-	2.0	133515/88			✓	✓	✓	✓	✓		2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ L1
1334	1.1	8000	65000	-	2.5	2091735/1568			✓	✓	✓	✓	✓		2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ K1
1125	1.3	8000	65000	-	3.2	110295/98			✓	✓	✓	✓	✓		2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ J1
981	1.5	8000	65000	-	4.2	240327/245			✓	✓	✓	✓	✓		2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ H1
968	1.5	8000	65000	-	1.81	806058/833	✓	✓	✓	✓	✓	✓	✓		2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ G1
914	1.6	8000	65000	-	2.0	44781/49	✓	✓	✓	✓	✓	✓	✓		2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ F1
778	1.9	8000	65000	-	2.6	952614/1225	✓	✓	✓	✓	✓	✓	✓		2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ E1
666	2.2	8000	65000	-	3.4	36639/55			✓	✓	✓	✓	✓		2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ D1
586	2.5	8000	65000	-	4.3	574011/980			✓	✓	✓	✓	✓		2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ C1
494	2.9	8000	65000	-	5.7	121068/245			✓	✓	✓	✓	✓		2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ B1
431	3.4	8000	65000	-	7.5	2638008/6125			✓	✓	✓	✓	✓		2KJ3437 - ■ ■ ■ ■ ■ - ■ ■ ■ A1
<b>FD.149-D49</b>															
27793	0.05	8000	65000	-	0.08	1361853/49	✓	✓	✓	✓					2KJ3438 - ■ ■ ■ ■ ■ - ■ ■ ■ N1
25266	0.06	8000	65000	-	0.10	13618530/539	✓	✓	✓	✓					2KJ3438 - ■ ■ ■ ■ ■ - ■ ■ ■ M1
21617	0.07	8000	65000	-	0.12	151317/7	✓	✓	✓	✓					2KJ3438 - ■ ■ ■ ■ ■ - ■ ■ ■ L1
19652	0.07	8000	65000	-	0.14	1513170/77	✓	✓	✓	✓					2KJ3438 - ■ ■ ■ ■ ■ - ■ ■ ■ K1
17371	0.08	8000	65000	-	0.17	6809265/392	✓	✓	✓	✓	✓				2KJ3438 - ■ ■ ■ ■ ■ - ■ ■ ■ J1
15791	0.09	8000	65000	-	0.22	34046325/2156	✓	✓	✓	✓	✓				2KJ3438 - ■ ■ ■ ■ ■ - ■ ■ ■ H1
13832	0.10	8000	65000	-	0.26	10844385/784	✓	✓	✓	✓	✓				2KJ3438 - ■ ■ ■ ■ ■ - ■ ■ ■ G1
12768	0.11	8000	65000	-	0.31	32533155/2548	✓	✓	✓	✓	✓				2KJ3438 - ■ ■ ■ ■ ■ - ■ ■ ■ F1
11305	0.13	8000	65000	-	0.37	31019985/2744	✓	✓	✓	✓	✓	✓			2KJ3438 - ■ ■ ■ ■ ■ - ■ ■ ■ E1
9409	0.15	8000	65000	-	0.50	29506815/3136	✓	✓	✓	✓	✓	✓			2KJ3438 - ■ ■ ■ ■ ■ - ■ ■ ■ D1
8856	0.16	8000	65000	-	0.59	1735695/196	✓	✓	✓	✓	✓	✓			2KJ3438 - ■ ■ ■ ■ ■ - ■ ■ ■ C1
7935	0.18	8000	65000	-	0.66	3110405/392	✓	✓	✓	✓	✓	✓			2KJ3438 - ■ ■ ■ ■ ■ - ■ ■ ■ B1
6755	0.21	8000	65000	-	0.86	756585/112	✓	✓	✓	✓	✓	✓			2KJ3438 - ■ ■ ■ ■ ■ - ■ ■ ■ A1

#### Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

## Parallel shaft geared motors

## Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size								Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	
<b>FD.169-Z69</b>															
6230	0.23	13600	73500	-	0.21	5189888/833	✓	✓	✓	✓				2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ A2	
5664	0.26	13600	73500	-	0.26	4718080/833	✓	✓	✓	✓				2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ X1	
4817	0.30	13600	73500	-	0.33	4012800/833	✓	✓	✓	✓				2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ W1	
4379	0.33	13600	73500	-	0.40	3648000/833	✓	✓	✓	✓				2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ V1	
3907	0.37	13600	73500	-	0.47	9764480/2499	✓	✓	✓	✓	✓			2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ U1	
3503	0.41	13600	73500	-	0.57	2918400/833	✓	✓	✓	✓	✓			2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ T1	
3158	0.46	13600	73500	-	0.67	7891840/2499	✓	✓	✓	✓	✓			2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ S1	
2915	0.50	13600	73500	-	0.80	31567360/10829	✓	✓	✓	✓	✓			2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ R1	
2661	0.54	13600	73500	-	0.95	15516160/5831	✓	✓	✓	✓	✓	✓		2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ Q1	
2208	0.66	13600	73500	-	1.25	1839200/833	✓	✓	✓	✓	✓	✓		2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ P1	
2078	0.70	13600	73500	-	1.44	29427200/14161	✓	✓	✓	✓	✓	✓		2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ N1	
1963	0.74	13600	73500	-	1.63	14713600/7497	✓	✓	✓	✓	✓	✓		2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ M1	
1670	0.87	13600	73500	-	2.1	1391104/833	✓	✓	✓	✓	✓	✓		2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ L1	
1431	1.0	13600	73500	-	2.6	24320/17			✓	✓	✓	✓	✓	2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ K1	
1258	1.2	13600	73500	-	3.2	3143360/2499			✓	✓	✓	✓	✓	2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ J1	
1061	1.4	13600	73500	-	4.2	20331520/19159			✓	✓	✓	✓	✓	2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ H1	
925	1.6	13600	73500	-	5.7	3852288/4165			✓	✓	✓	✓	✓	2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ G1	
869	1.7	13600	73500	-	3.2	21401600/24633	✓	✓	✓	✓	✓	✓	✓	2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ F1	
739	2.0	13600	73500	-	4.3	2023424/2737	✓	✓	✓	✓	✓	✓	✓	2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ E1	
633	2.3	13600	73500	-	5.6	2723840/4301			✓	✓	✓	✓	✓	2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ D1	
557	2.6	13600	73500	-	7.1	4572160/8211			✓	✓	✓	✓	✓	2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ C1	
470	3.1	13600	73500	-	9.7	29573120/62951			✓	✓	✓	✓	✓	2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ B1	
409	3.5	13600	73500	-	13	5603328/13685			✓	✓	✓	✓	✓	2KJ3440 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ A1	
<b>FD.169-D69</b>															
29846	0.05	13600	73500	-	0.07	4387328/147	✓	✓	✓	✓				2KJ3441 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ P1	
26206	0.06	13600	73500	-	0.08	1284096/49	✓	✓	✓	✓				2KJ3441 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ N1	
23824	0.06	13600	73500	-	0.10	1167360/49	✓	✓	✓	✓				2KJ3441 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ M1	
20382	0.07	13600	73500	-	0.12	428032/21	✓	✓	✓	✓				2KJ3441 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ L1	
18530	0.08	13600	73500	-	0.15	389120/21	✓	✓	✓	✓				2KJ3441 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ K1	
16379	0.09	13600	73500	-	0.17	802560/49	✓	✓	✓	✓	✓			2KJ3441 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ J1	
14890	0.10	13600	73500	-	0.23	729600/49	✓	✓	✓	✓	✓			2KJ3441 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ H1	
13042	0.11	13600	73500	-	0.26	5751680/441	✓	✓	✓	✓	✓			2KJ3441 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ G1	
12039	0.12	13600	73500	-	0.32	23006720/1911	✓	✓	✓	✓	✓			2KJ3441 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ F1	
10659	0.14	13600	73500	-	0.39	10968320/1029	✓	✓	✓	✓	✓	✓		2KJ3441 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ E1	
8872	0.16	13600	73500	-	0.52	434720/49	✓	✓	✓	✓	✓	✓		2KJ3441 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ D1	
8350	0.17	13600	73500	-	0.61	6955520/833	✓	✓	✓	✓	✓	✓		2KJ3441 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ C1	
7482	0.19	13600	73500	-	0.68	9898240/1323	✓	✓	✓	✓	✓	✓		2KJ3441 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ B1	
6370	0.23	13600	73500	-	0.89	133760/21	✓	✓	✓	✓	✓	✓		2KJ3441 - ■ ■ ■ ■ ■ - ■ ■ ■ ■ ■ A1	

## Article No. supplement

Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

Transmission ratios and torques for very low speeds

## Parallel shaft geared motors

### Selection and ordering data

i	n <sub>2</sub> rpm	T <sub>2N</sub> Nm	F <sub>R2</sub> N	φ <sup>1)</sup>	J <sub>G</sub> 10 <sup>-4</sup> kgm <sup>2</sup>	R <sub>ex</sub>	Motor frame size								Article No. (Article No. supplement, see below)
							63	71	80	90	100	112	132	160	
<b>FD.189-Z69</b>															
7150	0.20	19000	110900	-	0.23	191447542/26775	✓	✓	✓	✓				2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ C2	
6500	0.22	19000	110900	-	0.28	34808644/5355	✓	✓	✓	✓				2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ B2	
5529	0.26	19000	110900	-	0.35	1973686/357	✓	✓	✓	✓				2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ A2	
5026	0.29	19000	110900	-	0.43	1794260/357	✓	✓	✓	✓				2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ X1	
4484	0.32	19000	110900	-	0.51	72039539/16065	✓	✓	✓	✓	✓			2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ W1	
4021	0.36	19000	110900	-	0.62	1435408/357	✓	✓	✓	✓	✓			2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ V1	
3624	0.40	19000	110900	-	0.73	58223737/16065	✓	✓	✓	✓	✓			2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ U1	
3345	0.43	19000	110900	-	0.87	17914996/5355	✓	✓	✓	✓	✓			2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ T1	
3054	0.47	19000	110900	-	1.04	114473788/37485	✓	✓	✓	✓	✓	✓		2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ S1	
2534	0.57	19000	110900	-	1.38	10855273/4284	✓	✓	✓	✓	✓	✓		2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ R1	
2385	0.61	19000	110900	-	1.57	43421092/18207	✓	✓	✓	✓	✓	✓		2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ Q1	
2252	0.64	19000	110900	-	1.78	21710546/9639	✓	✓	✓	✓	✓	✓		2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ P1	
1917	0.76	19000	110900	-	2.3	51315836/26775	✓	✓	✓	✓	✓	✓		2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ N1	
1642	0.88	19000	110900	-	2.9	1255982/765			✓	✓	✓	✓	✓	2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ M1	
1444	1.0	19000	110900	-	3.6	46381621/32130			✓	✓	✓	✓	✓	2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ L1	
1218	1.2	19000	110900	-	4.8	150000136/123165			✓	✓	✓	✓	✓	2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ K1	
1061	1.4	19000	110900	-	6.4	15789488/14875			✓	✓	✓	✓	✓	2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ J1	
997	1.5	19000	110900	-	4.0	31578976/31671	✓	✓	✓	✓	✓	✓	✓	2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ H1	
848	1.7	19000	110900	-	5.4	74641216/87975	✓	✓	✓	✓	✓	✓	✓	2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ G1	
727	2.0	19000	110900	-	7.1	140669984/193545			✓	✓	✓	✓	✓	2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ F1	
639	2.3	19000	110900	-	9.1	33732088/52785			✓	✓	✓	✓	✓	2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ E1	
539	2.7	19000	110900	-	12	218182016/404685			✓	✓	✓	✓	✓	2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ D1	
478	3.0	19000	110900	-	12	8403976/17595			✓	✓	✓	✓	✓	2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ C1	
403	3.6	19000	110900	-	16	54357632/134895			✓	✓	✓	✓	✓	2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ B1	
351	4.1	19000	110900	-	21	17165568/48875			✓	✓	✓	✓	✓	2KJ3442 - ■ ■ ■ ■ ■ - ■ ■ ■ A1	
<b>FD.189-D69</b>															
27341	0.05	19000	110900	-	0.10	2870816/105	✓	✓	✓	✓				2KJ3443 - ■ ■ ■ ■ ■ - ■ ■ ■ M1	
23392	0.06	19000	110900	-	0.12	15789488/675	✓	✓	✓	✓				2KJ3443 - ■ ■ ■ ■ ■ - ■ ■ ■ L1	
21265	0.07	19000	110900	-	0.15	2870816/135	✓	✓	✓	✓				2KJ3443 - ■ ■ ■ ■ ■ - ■ ■ ■ K1	
18797	0.08	19000	110900	-	0.17	1973686/105	✓	✓	✓	✓	✓			2KJ3443 - ■ ■ ■ ■ ■ - ■ ■ ■ J1	
17088	0.08	19000	110900	-	0.23	358852/21	✓	✓	✓	✓	✓			2KJ3443 - ■ ■ ■ ■ ■ - ■ ■ ■ H1	
14968	0.10	19000	110900	-	0.27	42434249/2835	✓	✓	✓	✓	✓			2KJ3443 - ■ ■ ■ ■ ■ - ■ ■ ■ G1	
13817	0.10	19000	110900	-	0.32	13056692/945	✓	✓	✓	✓	✓			2KJ3443 - ■ ■ ■ ■ ■ - ■ ■ ■ F1	
12233	0.12	19000	110900	-	0.39	80921126/6615	✓	✓	✓	✓	✓	✓		2KJ3443 - ■ ■ ■ ■ ■ - ■ ■ ■ E1	
10182	0.14	19000	110900	-	0.53	12828959/1260	✓	✓	✓	✓	✓	✓		2KJ3443 - ■ ■ ■ ■ ■ - ■ ■ ■ D1	
9583	0.15	19000	110900	-	0.62	51315836/5355	✓	✓	✓	✓	✓	✓		2KJ3443 - ■ ■ ■ ■ ■ - ■ ■ ■ C1	
8586	0.17	19000	110900	-	0.69	73026382/8505	✓	✓	✓	✓	✓	✓		2KJ3443 - ■ ■ ■ ■ ■ - ■ ■ ■ B1	
7310	0.20	19000	110900	-	0.90	986843/135	✓	✓	✓	✓	✓	✓		2KJ3443 - ■ ■ ■ ■ ■ - ■ ■ ■ A1	

#### Article No. supplement

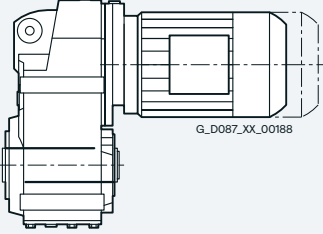
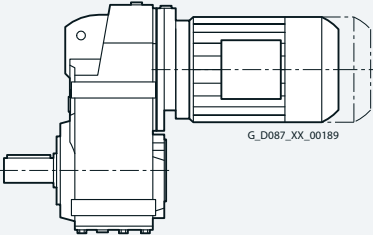
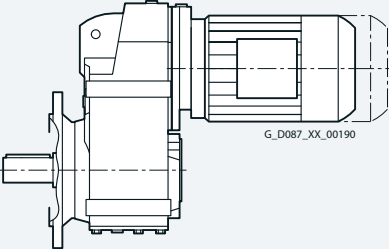
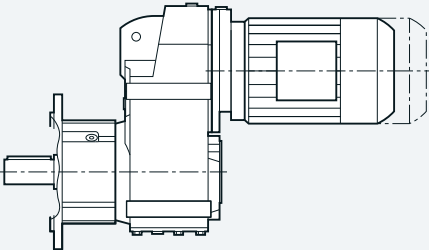
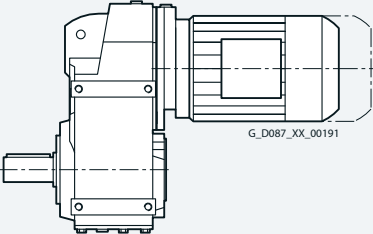
Shaft design	<b>1 or 9</b>	see page 10/49
Motor frame size, motor type, efficiency class		see chapter 9
Frequency and voltage	<b>2 or 9</b>	see page 11/2
Gearbox mounting type	<b>A, F, H or D</b>	see page 10/42

<sup>1)</sup> Only in conjunction with reduced-backlash version

# Parallel shaft geared motors

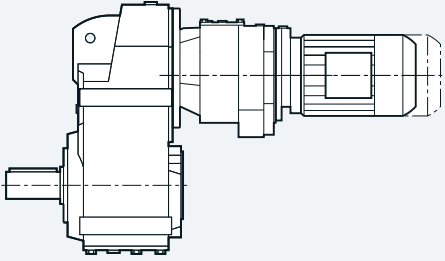
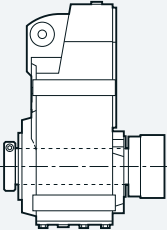
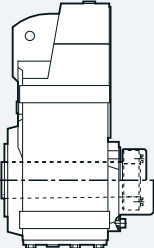
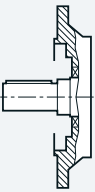
## Overview

Information about dimensional drawings can be found in chapter Introduction on page 1/23.

Design	Frame size	Dimensional drawing on page
<b>Parallel shaft geared motor FZ and FD</b>		
<i>Shaft-mounted design</i>		
	FZAD./FDAD.29	4/75
	FZAD./FDAD.39	4/79
	FZAD./FDAD.49	4/83
	FZAD./FDAD.69	4/87
	FZAD./FDAD.79	4/91
	FZAD./FDAD.89	4/95
	FZAD./FDAD.109	4/100
	FZAD./FDAD.129	4/105
	FZAD./FDAD.149	4/110
	FZAD./FDAD.169	4/115
	FZAD./FDAD.189	4/120
<i>Housing flange design</i>		
	FZ.Z./FD.Z.29	4/76
	FZ.Z./FD.Z.39	4/80
	FZ.Z./FD.Z.49	4/84
	FZ.Z./FD.Z.69	4/88
	FZ.Z./FD.Z.79	4/92
	FZ.Z./FD.Z.89	4/96
	FZ.Z./FD.Z.109	4/101
	FZ.Z./FD.Z.129	4/106
	FZ.Z./FD.Z.149	4/111
	FZ.Z./FD.Z.169	4/116
	FZ.Z./FD.Z.189	4/121
<i>Flange-mounted design</i>		
	FZ.F./FD.F.29	4/77
	FZ.F./FD.F.39	4/81
	FZ.F./FD.F.49	4/85
	FZ.F./FD.F.69	4/89
	FZ.F./FD.F.79	4/93
	FZ.F./FD.F.89	4/97
	FZ.F./FD.F.109	4/102
	FZ.F./FD.F.129	4/107
	FZ.F./FD.F.149	4/112
	FZ.F./FD.F.169	4/117
	FZ.F./FD.F.189	4/122
<i>Flange-mounted design with VLplus reinforced bearing system</i>		
	FZ.F./FD.F.89	4/98
	FZ.F./FD.F.109	4/103
	FZ.F./FD.F.129	4/108
	FZ.F./FD.F.149	4/113
	FZ.F./FD.F.169	4/118
<i>Foot-mounted design</i>		
	FZ../FD..29	4/78
	FZ../FD..39	4/82
	FZ../FD..49	4/86
	FZ../FD..69	4/90
	FZ../FD..79	4/94
	FZ../FD..89	4/99
	FZ../FD..109	4/104
	FZ../FD..129	4/109
	FZ../FD..149	4/114
	FZ../FD..169	4/119
	FZ../FD..189	4/123

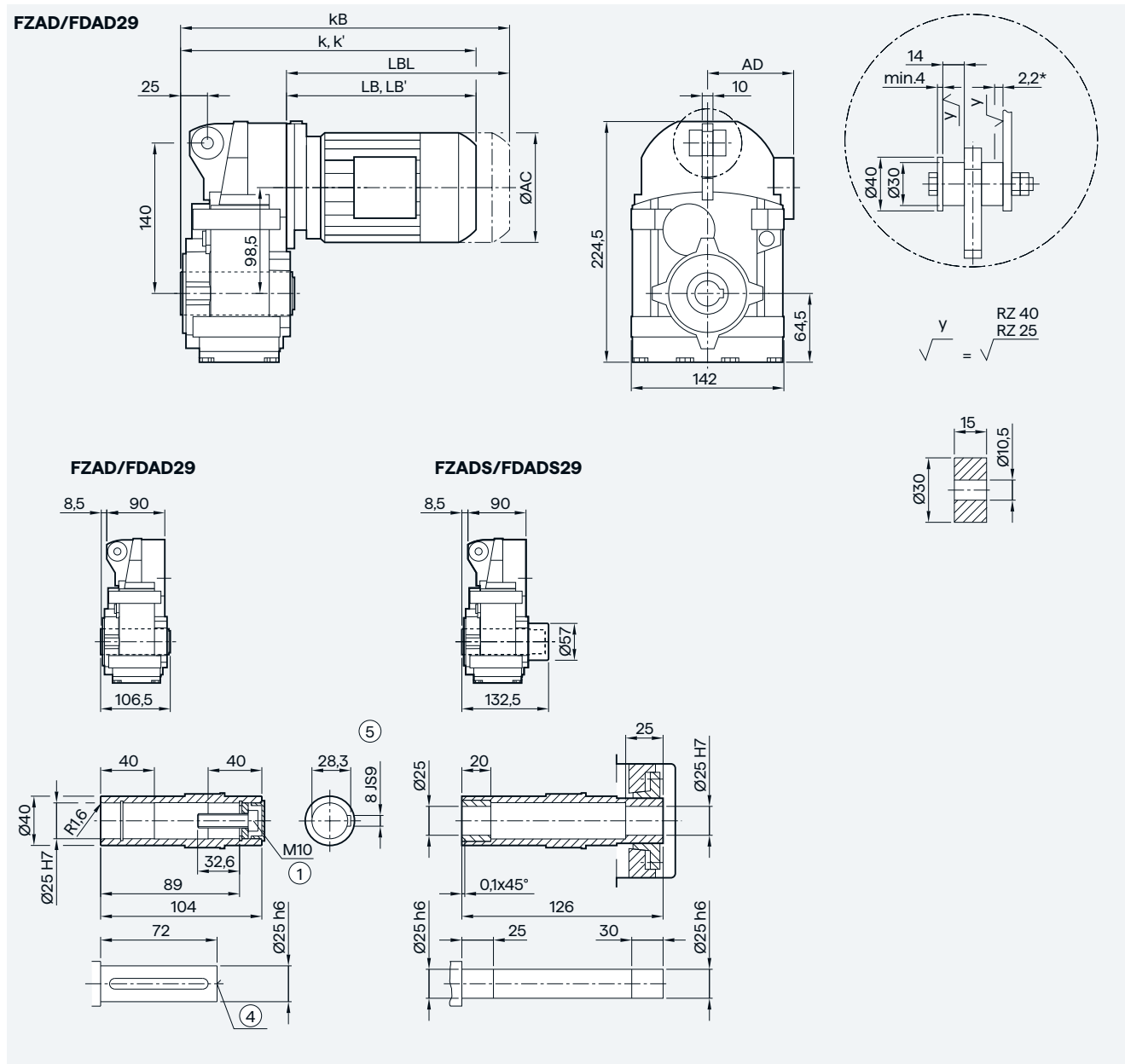
# Parallel shaft geared motors

## Overview

Design	Frame size	Dimensional drawing on page
<p><b>Parallel shaft tandem geared motor</b></p> 	<p>FZ../FD..29-Z/D19 ... FD..189-Z/D69</p>	<p>4/124 ... 4/125</p>
<b>Additional versions and options</b>		
<i>ShaftMount assembly system</i>		
	<p>FZADR/FDADR29 ... FZADR/FDADR89</p>	<p>4/126</p>
<i>Protective covers</i>		
	<p>FZ../FD..29 ... FZ../FD..189</p>	<p>4/127 ... 4/128</p>
<i>Inner contour of the flange-mounted design</i>		
	<p>FZF/FDF.29 ... FZF/FDF.189 FZAF/FDAF.29 ... FZAF/FDAF.189</p>	<p>4/129</p>

4

**Gearbox FZAD./FDAD.29 in a shaft-mounted design**



4

Motor	LE63	LE63Z	LE71/ FZ71	LE71Z/ FZ71Z	LE71Y	LE80	LE80Z	LE90 <sup>3)</sup> / FZ90 <sup>3)</sup>	LE90Z <sup>3)</sup> / FZ90Z <sup>3)</sup>	LE100 <sup>3)</sup>	LE100Z <sup>3)</sup>
AC	117.8	117.8	138.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0
AD <sup>1)</sup>	124.0	124.0	134.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5
k	292.5	318.5	324.5	343.5	383.5	388.5	423.5	450.0	490.0	506.5	541.5
k' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	500.0	535.0
kB	337.0	363.0	379.5	398.5	438.5	448.5	483.5	520.0	560.0	585.0	620.0
LB	194.0	220.0	226.0	245.0	285.0	290.0	325.0	351.5	391.5	408.0	443.0
LB' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	401.5	436.5
LBL	238.5	264.5	281.0	300.0	340.0	350.0	385.0	421.5	461.5	486.5	521.5

① ISO 4017

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

\* Spring compression at max. torque

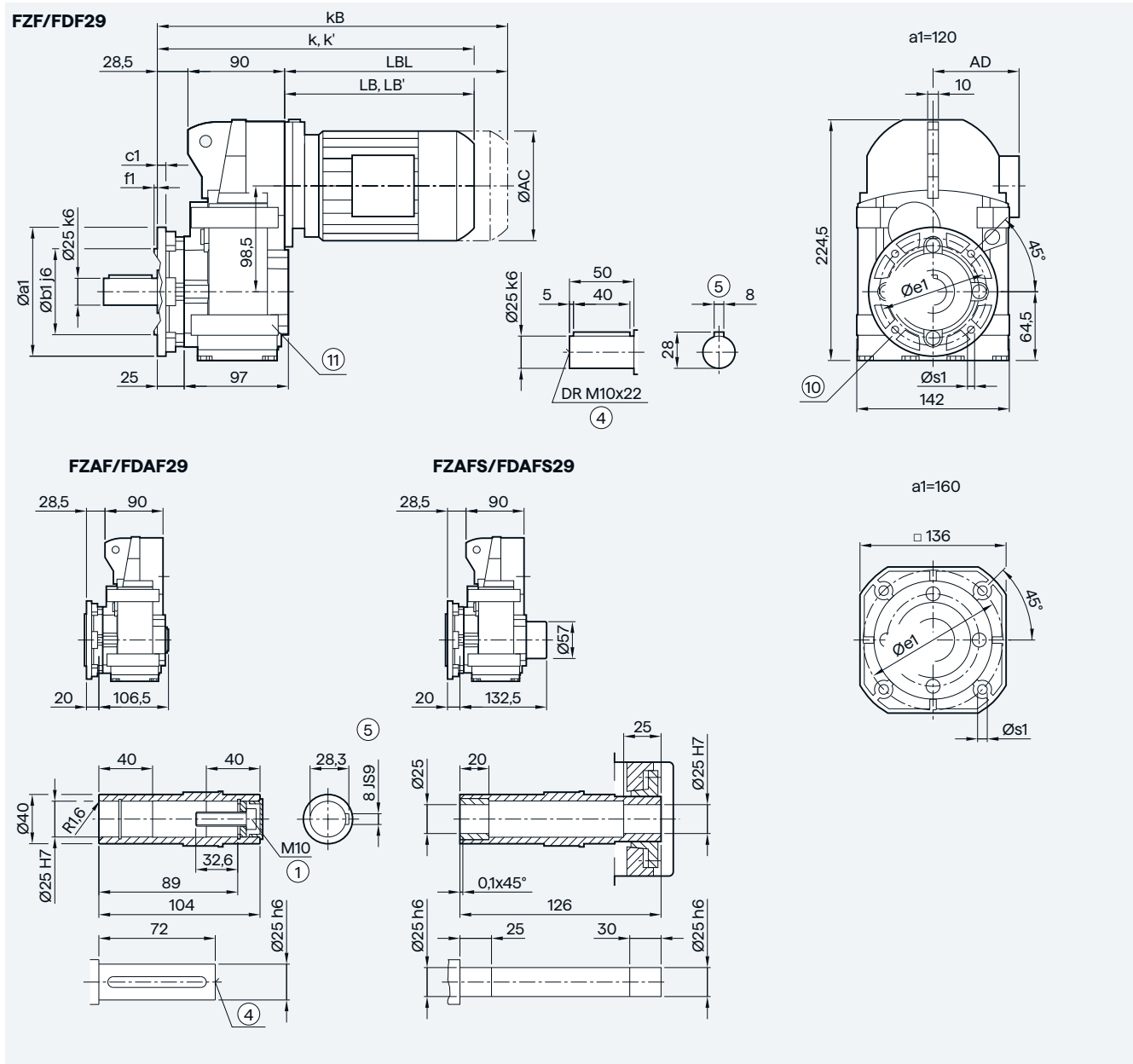
<sup>1)</sup> AD depends on the motor options, for other dimensions, see page 9/46.

<sup>2)</sup> k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

<sup>3)</sup> FDADS/FZADS not possible



**Gearbox FZ.F./FD.F.29 in a flange-mounted design**



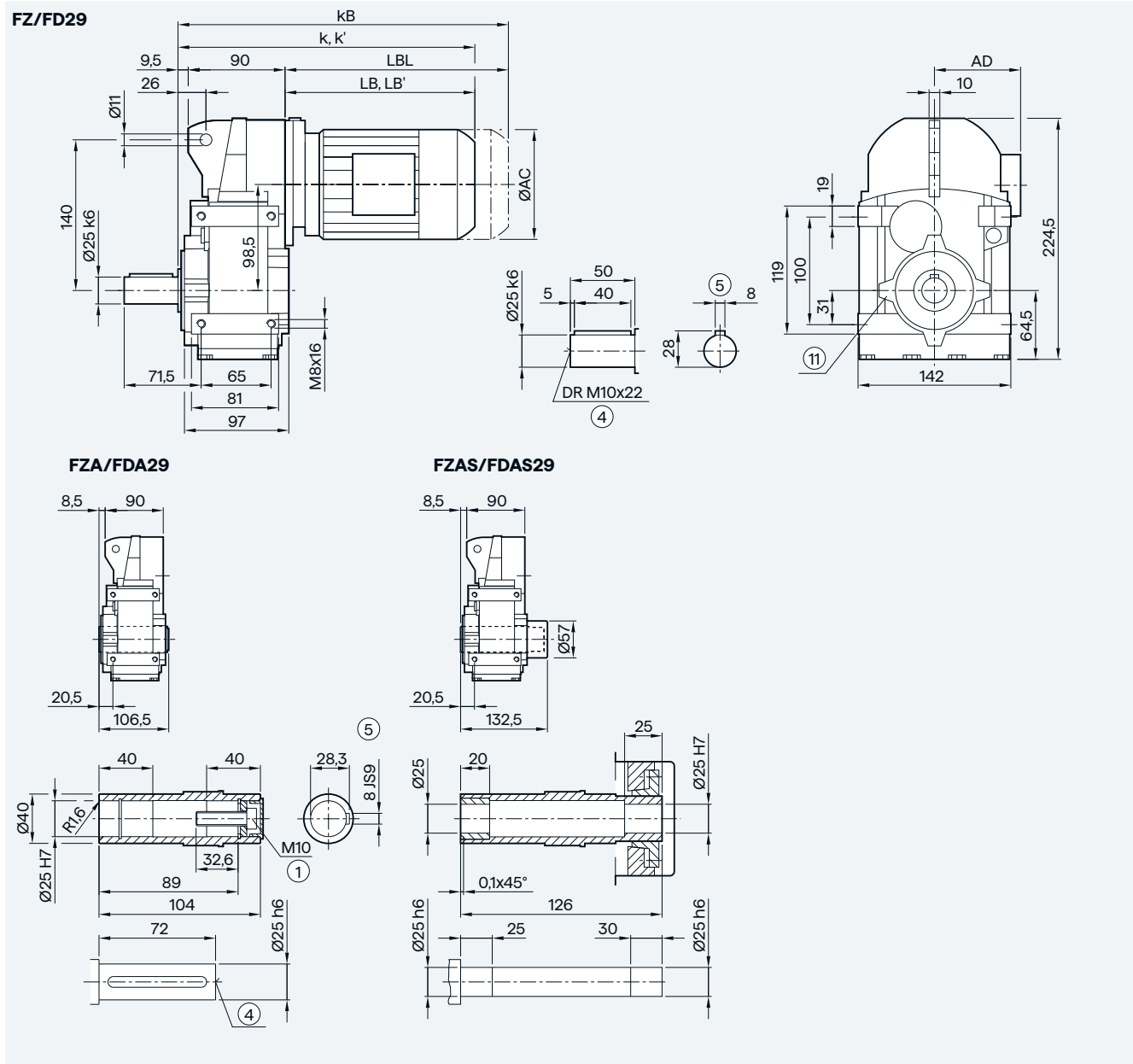
Flange	a1		b1		c1		f1		e1		s1	
	120	160	80	110	8	9	3.0	3.5	100	130	6.6	9.0
<b>Motor</b>	<b>LE63</b>	<b>LE63Z</b>	<b>LE71/ FZ71</b>	<b>LE71Z/ FZ71Z</b>	<b>LE71Y</b>	<b>LE80</b>	<b>LE80Z</b>	<b>LE90<sup>3)</sup>/ FZ90<sup>3)</sup></b>	<b>LE90Z<sup>3)</sup>/ FZ90Z<sup>3)</sup></b>	<b>LE100<sup>3)</sup></b>	<b>LE100Z<sup>3)</sup></b>	
AC	117.8	117.8	138.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	
AD <sup>1)</sup>	124.0	124.0	134.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	
k	312.5	338.5	344.5	363.5	403.5	408.5	443.5	470.0	510.0	526.5	561.5	
k' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	520.0	555.0	
kB	357.0	383.0	399.5	418.5	458.5	468.5	503.5	540.0	580.0	605.0	640.0	
LB	194.0	220.0	226.0	245.0	285.0	290.0	325.0	351.5	391.5	408.0	443.0	
LB' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	401.5	436.5	
LBL	238.5	264.5	281.0	300.0	340.0	350.0	385.0	421.5	461.5	486.5	521.5	

① ISO 4017      ④ DIN 332      ⑤ Feather key/keyway DIN 6885-1      ⑥ For inner contour, see page 4/129  
 ⑦ Use bores only for foot-mounted design  
 1) AD depends on the motor options, for other dimensions, see page 9/46.  
 2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.  
 3) FDADS/FZADS not possible

# Parallel shaft geared motors

## 2- and 3-stage

### Gearbox FZ../FD..29 in a foot-mounted design



Motor	LE63	LE63Z	LE71/ FZ71	LE71Z/ FZ71Z	LE71Y	LE80	LE80Z	LE90 <sup>3)</sup> / FZ90 <sup>3)</sup>	LE90Z <sup>3)</sup> / FZ90Z <sup>3)</sup>	LE100 <sup>3)</sup>	LE100Z <sup>3)</sup>
AC	117.8	117.8	138.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0
AD <sup>1)</sup>	124.0	124.0	134.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5
k	293.5	319.5	325.5	344.5	384.5	389.5	424.5	451.0	491.0	507.5	542.5
k' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	501.0	536.0
kB	338.0	364.0	380.5	399.5	439.5	449.5	484.5	521.0	561.0	586.0	621.0
LB	194.0	220.0	226.0	245.0	285.0	290.0	325.0	351.5	391.5	408.0	443.0
LB' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	401.5	436.5
LBL	238.5	264.5	281.0	300.0	340.0	350.0	385.0	421.5	461.5	486.5	521.5

① ISO 4017

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

⑥ Use bores only for housing flange design

<sup>1)</sup> AD depends on the motor options, for other dimensions, see page 9/46.

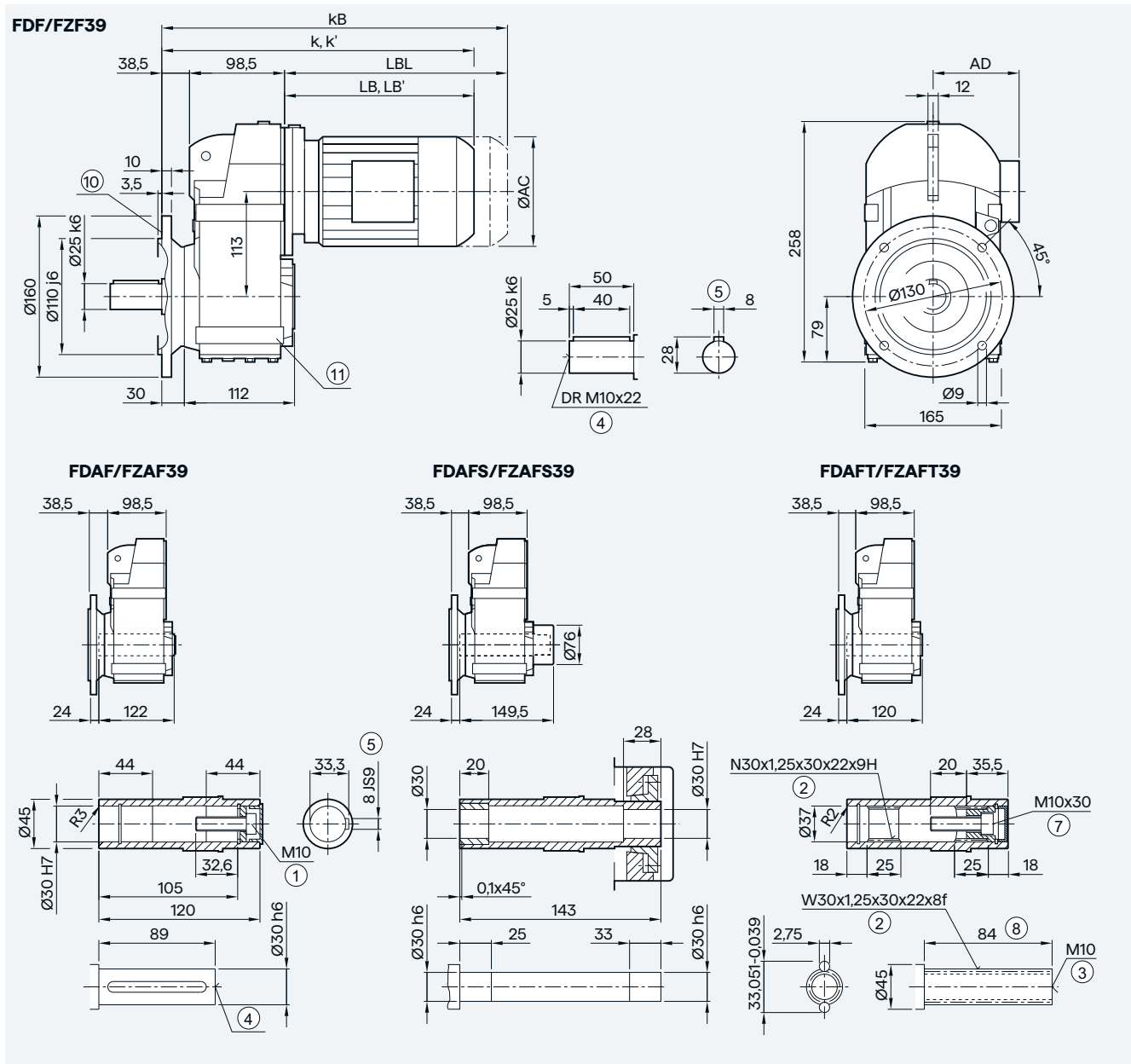
<sup>2)</sup> k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

<sup>3)</sup> FDADS/FZADS not possible





Gearbox FZ.F./FD.F.39 in a flange-mounted design



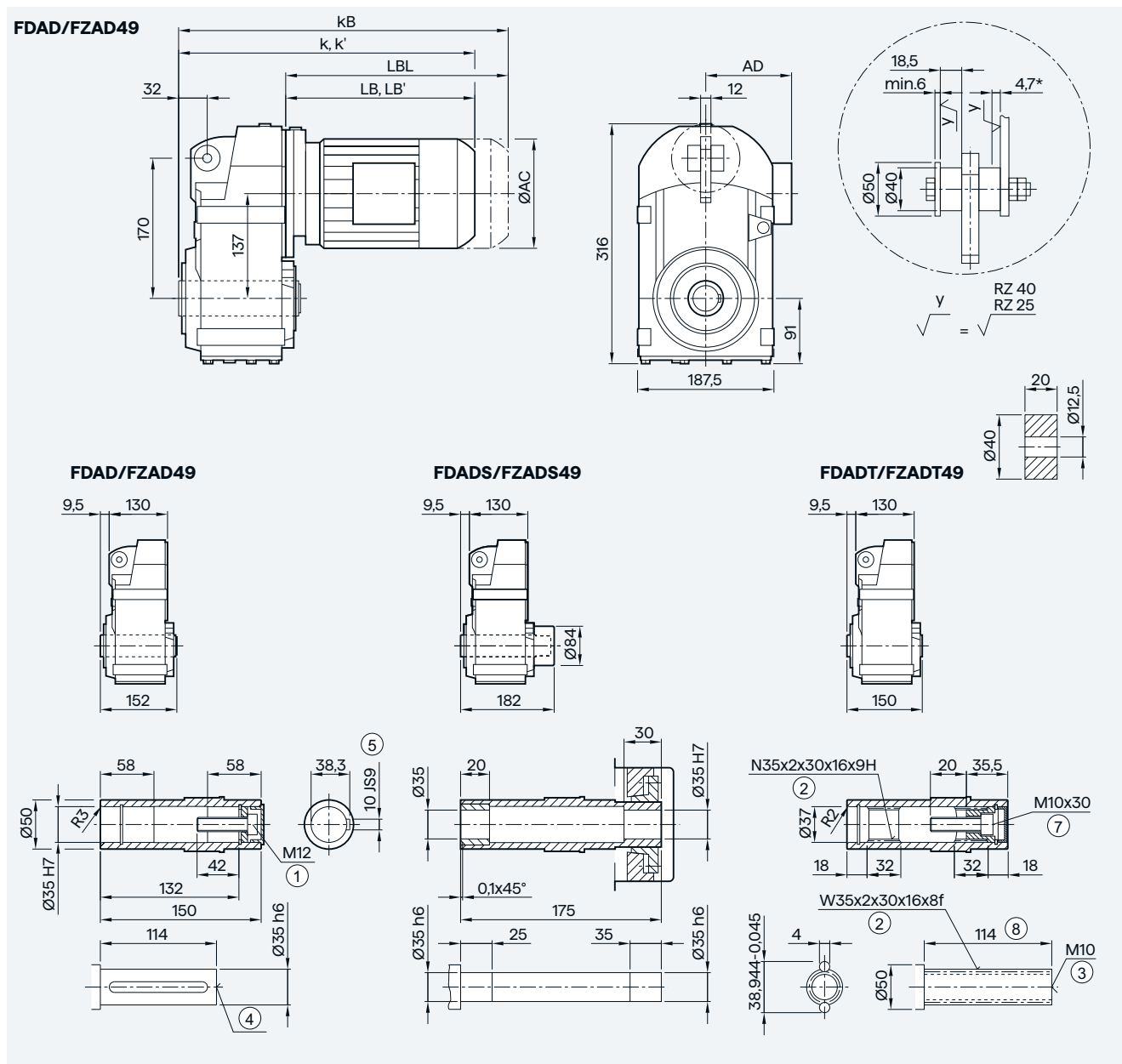
4

Motor	LE63	LE63Z	LE71/ FZ71	LE71Z/ FZ71Z	LE71Y	LE80	LE80Z	LE90/ FZ90	LE90Z/ FZ90Z	LE100 <sup>3)</sup>	LE100Z <sup>3)</sup>	LE112 <sup>3)</sup>	LE112Z <sup>3)</sup>
AC	117.8	117.8	138.8	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	124.0	134.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5
k	331.0	357.0	363.0	382.0	422.0	427.0	462.0	488.5	528.5	545.0	580.0	555.0	580.0
k' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	538.5	573.5	544.0	569.0
kB	375.5	401.5	418.0	437.0	477.0	487.0	522.0	558.5	598.5	623.5	658.5	628.0	653.0
LB	194.0	220.0	226.0	245.0	285.0	290.0	325.0	351.5	391.5	408.0	443.0	418.0	443.0
LB' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	401.5	436.5	407.0	432.0
LBL	238.5	264.5	281.0	300.0	340.0	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    ⑥ ISO 4762    ⑦ Without locating shoulder +1mm  
 ⑧ For inner contour, see page 4/129    ⑨ Use bores only for foot-mounted design  
 1) AD depends on the motor options, for other dimensions, see page 9/46.  
 2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.  
 3) FDAFS/FZAFS not possible



Gearbox FZAD./FDAD.49 in a shaft-mounted design



4

Motor	LE63	LE63Z	LE71/ FZ71	LE71Z/ FZ71Z	LE71Y	LE80	LE80Z	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112 <sup>3)</sup>	LE112Z <sup>3)</sup>	LE132 <sup>3)</sup>	LE132Z <sup>3)</sup>
AC	117.8	117.8	138.8	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	124.0	134.0	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	324.0	350.0	356.0	375.0	415.0	420.0	455.0	481.5	521.5	538.0	573.0	548.0	582.5	601.0	651.0
k' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	531.5	566.5	537.0	571.5	591.5	641.5
KB	368.5	394.5	411.0	430.0	470.0	480.0	515.0	551.5	591.5	616.5	651.5	621.0	655.5	705.5	755.5
LB	184.5	210.5	216.5	235.5	275.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LB' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	392.0	427.0	397.5	432.0	452.0	502.0
LBL	229.0	255.0	271.5	290.5	430.5	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    ⑥ ISO 4762    ⑦ Without locating shoulder +1 mm

\* Spring compression at max. torque

1) AD depends on the motor options, for other dimensions, see page 9/46.

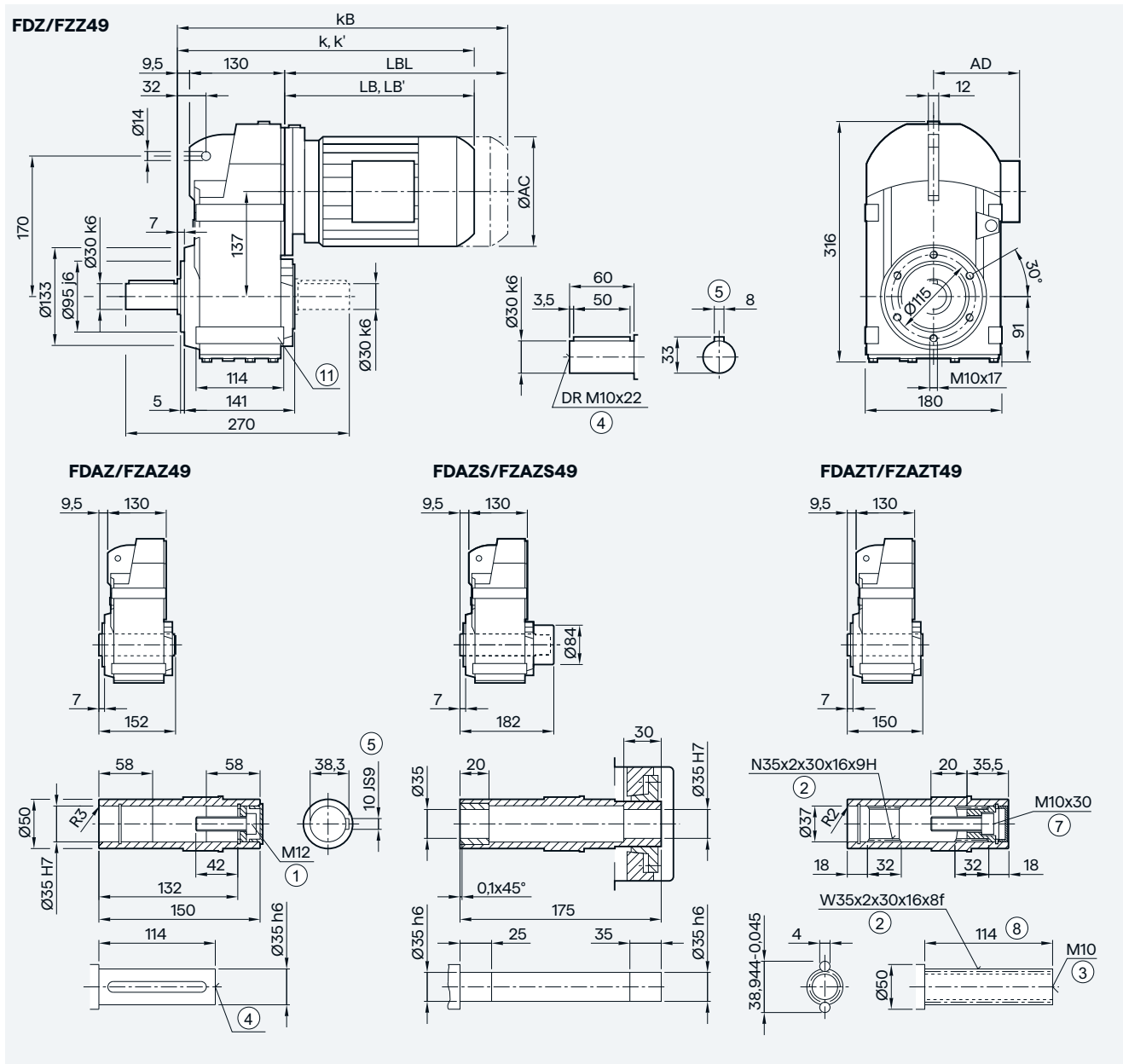
2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

3) FDADS/FZADS not possible

# Parallel shaft geared motors

## 2- and 3-stage

### Gearbox FZ.Z./FD.Z.49 in a housing flange design



Motor	LE63	LE63Z	LE71/ FZ71	LE71Z/ FZ71Z	LE71Y	LE80	LE80Z	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112 <sup>3)</sup>	LE112Z <sup>3)</sup>	LE132 <sup>3)</sup>	LE132Z <sup>3)</sup>
AC	117.8	117.8	138.8	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	124.0	134.0	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	324.0	350.0	356.0	375.0	415.0	420.0	455.0	481.5	521.5	538.0	573.0	548.0	582.5	601.0	651.0
k' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	531.5	566.5	537.0	571.5	591.5	641.5
KB	368.5	394.5	411.0	430.0	470.0	480.0	515.0	551.5	591.5	616.5	651.5	621.0	655.5	705.5	755.5
LB	184.5	210.5	216.5	235.5	275.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LB' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	392.0	427.0	397.5	432.0	452.0	502.0
LBL	229.0	255.0	271.5	290.5	430.5	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    ⑥ ISO 4762    ⑦ Without locating shoulder +1mm

⑧ Use bores only for foot-mounted design

1) AD depends on the motor options, for other dimensions, see page 9/46.

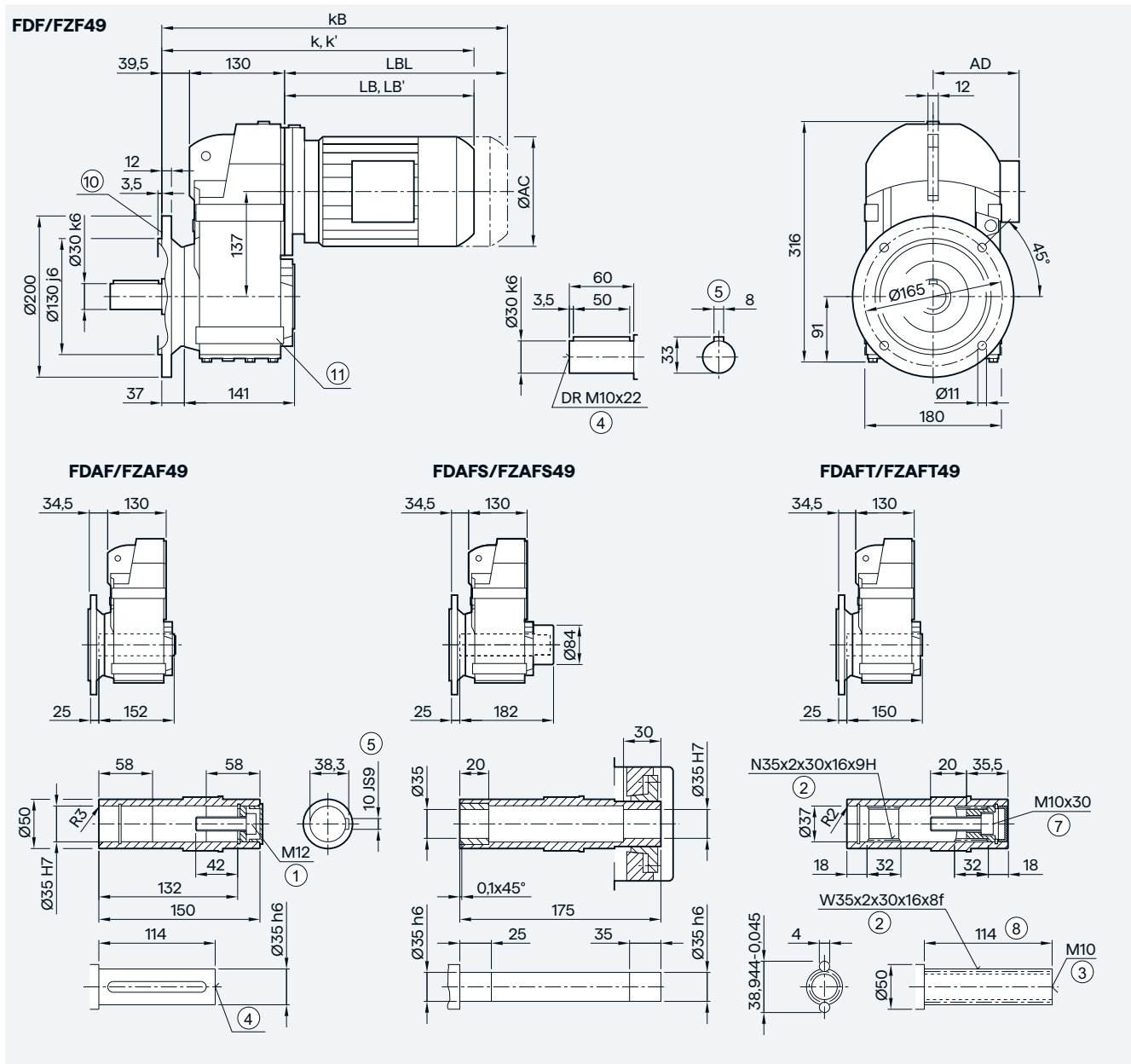
2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

3) FDAZS/FZAZS not possible

# Parallel shaft geared motors

2- and 3-stage

## Gearbox FZ.F./FD.F.49 in a flange-mounted design



Motor	LE63	LE63Z	LE71/ FZ71	LE71Z/ FZ71Z	LE71Y	LE80	LE80Z	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112 <sup>3)</sup>	LE112Z <sup>3)</sup>	LE132 <sup>3)</sup>	LE132Z <sup>3)</sup>
AC	117.8	117.8	138.8	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	124.0	134.0	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	354.0	380.0	386.0	394.0	434.0	450.0	485.0	511.5	551.5	568.0	603.0	578.0	612.5	631.0	681.0
k' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	561.5	596.5	567.0	601.5	621.5	671.5
KB	398.5	424.5	441.0	460.0	500.0	510.0	545.0	581.5	621.5	646.5	681.5	651.0	685.5	735.5	785.5
LB	184.5	210.5	216.5	235.5	275.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LB' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	392.0	427.0	397.5	432.0	452.0	502.0
LBL	229.0	255.0	271.5	290.5	430.5	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    ⑥ ISO 4762    ⑦ Without locating shoulder +1mm

⑧ For inner contour, see page 4/129    ⑨ Use bores only for foot-mounted design

1) AD depends on the motor options, for other dimensions, see page 9/46.

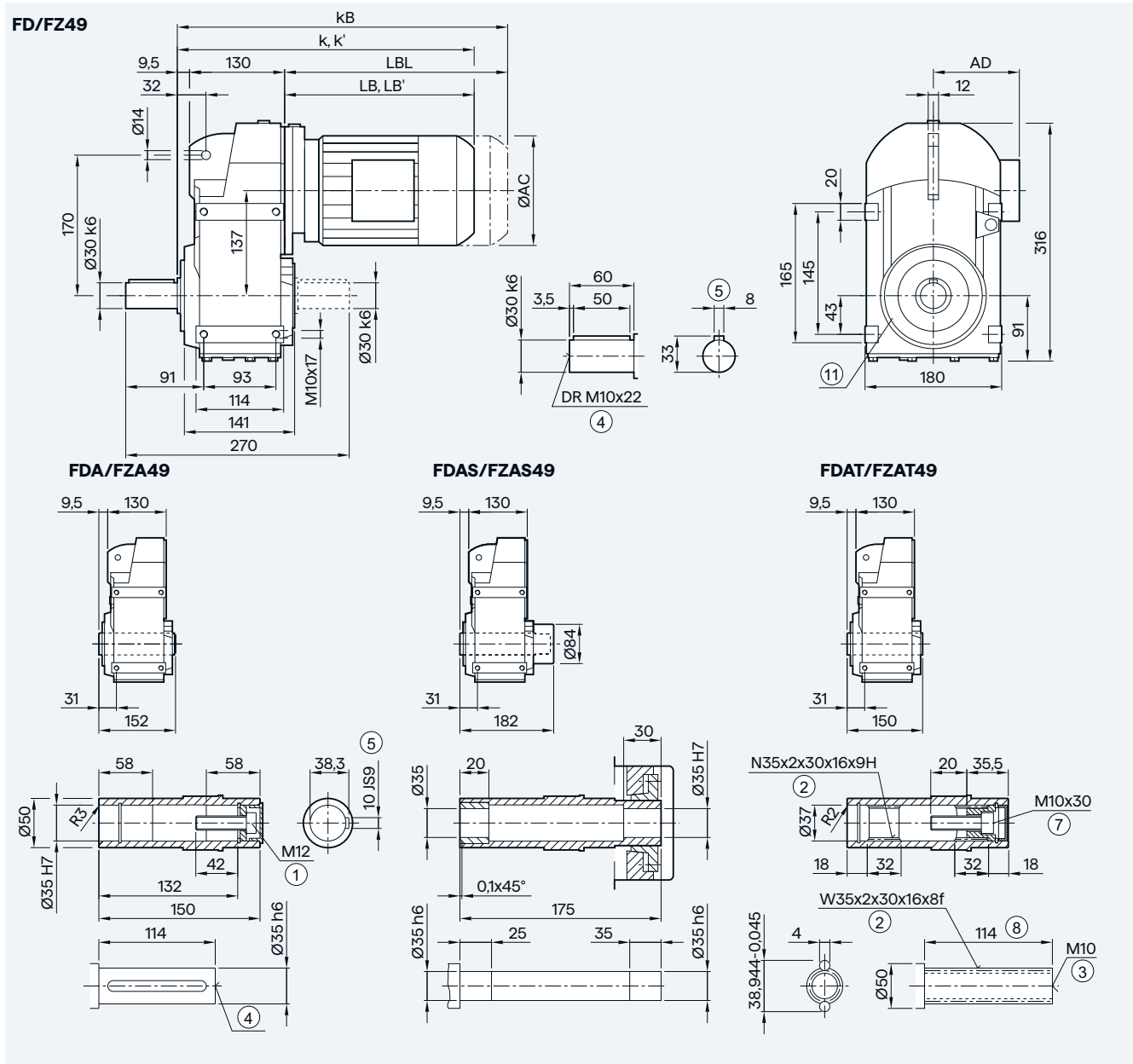
2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

3) FADAFS/FZAFS not possible

# Parallel shaft geared motors

## 2- and 3-stage

### Gearbox FZ../FD..49 in a foot-mounted design



Motor	LE63	LE63Z	LE71/ FZ71	LE71Z/ FZ71Z	LE71Y	LE80	LE80Z	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112 <sup>3)</sup>	LE112Z <sup>3)</sup>	LE132 <sup>3)</sup>	LE132Z <sup>3)</sup>
AC	117.8	117.8	138.8	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	124.0	134.0	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	324.0	350.0	356.0	375.0	415.0	420.0	455.0	481.5	521.5	538.0	573.0	548.0	582.5	601.0	651.0
k' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	531.5	566.5	537.0	571.5	591.5	641.5
KB	368.5	394.5	411.0	430.0	470.0	480.0	515.0	551.5	591.5	616.5	651.5	621.0	655.5	705.5	755.5
LB	184.5	210.5	216.5	235.5	275.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LB' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	392.0	427.0	397.5	432.0	452.0	502.0
LBL	229.0	255.0	271.5	290.5	430.5	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    ⑥ ISO 4762    ⑦ Without locating shoulder +1mm

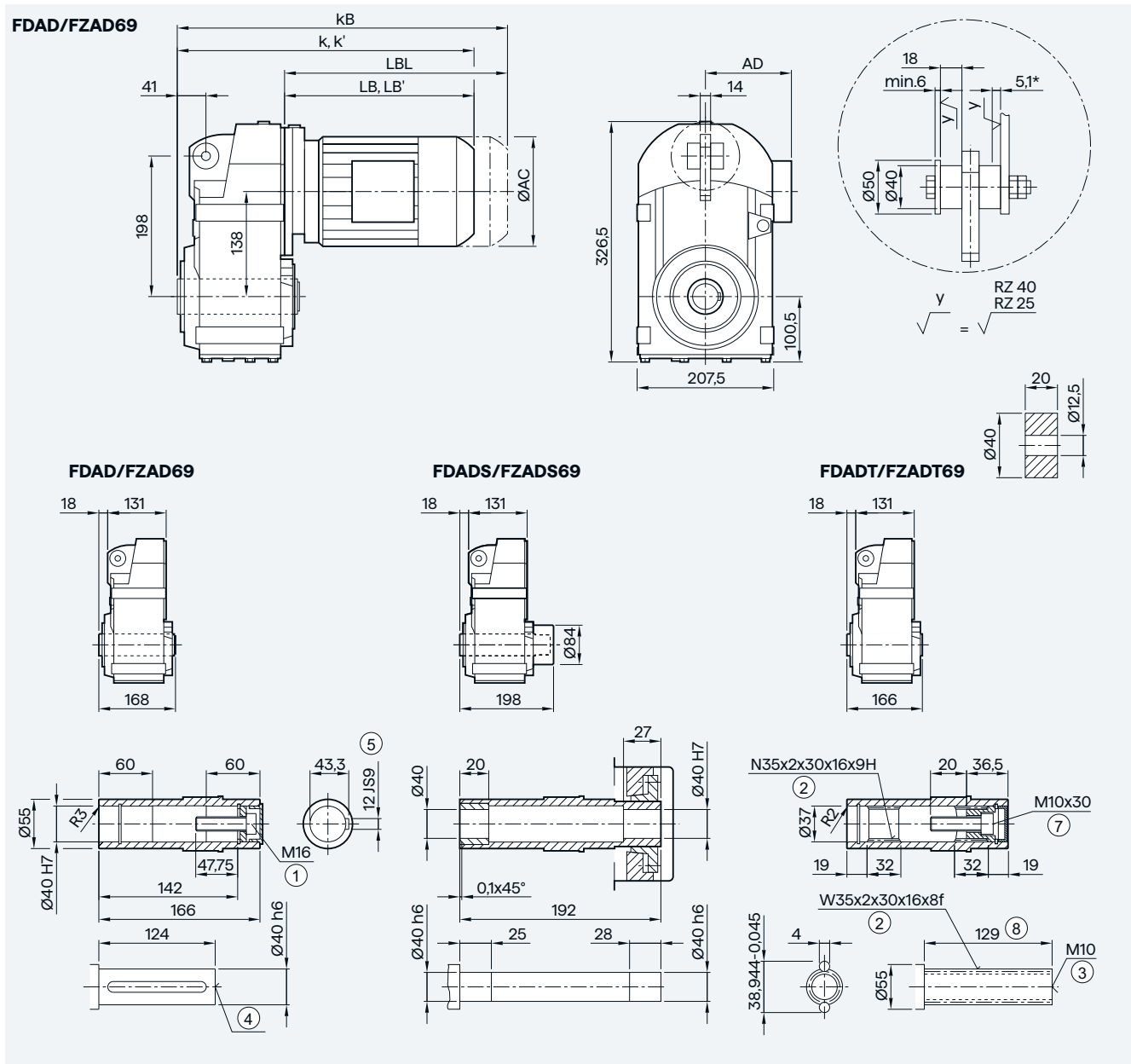
⑧ Use bores only for housing flange design

1) AD depends on the motor options, for other dimensions, see page 9/46.

2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

3) FDAS/FZAS not possible

Gearbox FZAD./FDAD.69 in a shaft-mounted design



4

Motor	LE63	LE63Z	LE71/ FZ71	LE71Z/ FZ71Z	LE71Y	LE80	LE80Z	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112 <sup>3)</sup>	LE112Z <sup>3)</sup>	LE132 <sup>3)</sup>	LE132Z <sup>3)</sup>
AC	117.8	117.8	138.8	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	124.0	134.0	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	333.5	359.5	365.5	384.5	424.5	429.5	464.5	491.0	531.0	547.5	582.5	557.5	592.0	610.5	660.5
k' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	541.0	576.0	546.5	581.0	601.0	651.0
KB	378.0	404.0	420.5	439.5	479.5	489.5	524.5	561.0	601.0	626.0	661.0	630.5	665.0	715.0	765.0
LB	184.5	210.5	216.5	235.5	275.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LB' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	392.0	427.0	397.5	432.0	452.0	502.0
LBL	229.0	255.0	271.5	290.5	340.5	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 +1mm

\* Spring compression at max. torque

1) AD depends on the motor options, for other dimensions, see page 9/46.

2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

3) FDADS/FZADS not possible

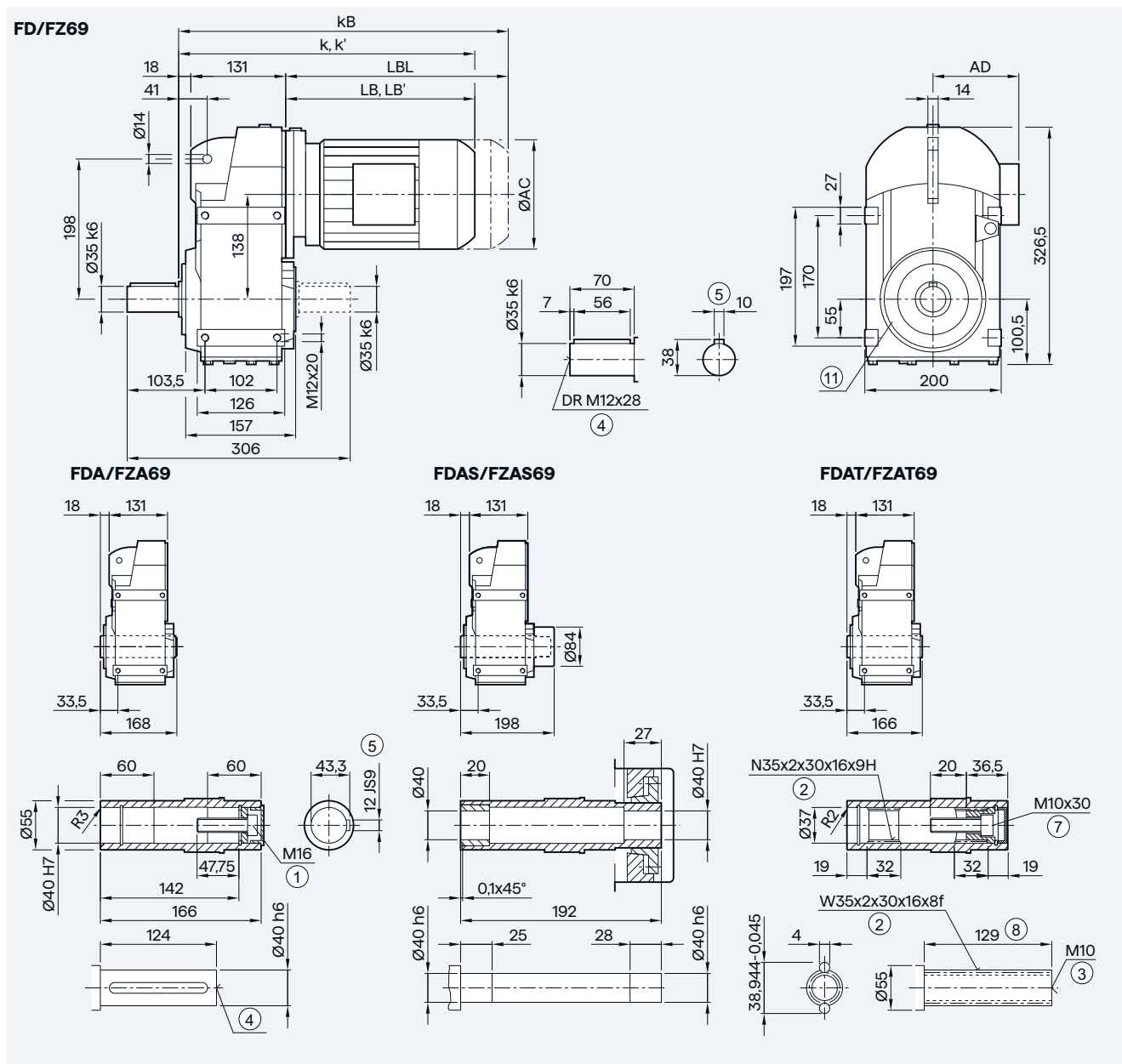




# Parallel shaft geared motors

## 2- and 3-stage

### Gearbox FZ../FD..69 in a foot-mounted design



Motor	LE63	LE63Z	LE71/ FZ71	LE71Z/ FZ71Z	LE71Y	LE80	LE80Z	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112 <sup>3)</sup>	LE112Z <sup>3)</sup>	LE132 <sup>3)</sup>	LE132Z <sup>3)</sup>
AC	117.8	117.8	138.8	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	124.0	134.0	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	333.5	359.5	365.5	384.5	424.5	429.5	464.5	491.0	531.0	547.5	582.5	557.5	592.0	610.5	660.5
k' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	541.0	576.0	546.5	581.0	601.0	651.0
KB	378.0	404.0	420.5	439.5	479.5	489.5	524.5	561.0	601.0	626.0	661.0	630.5	665.0	715.0	765.0
LB	184.5	210.5	216.5	235.5	275.5	280.5	315.5	342.0	382.0	398.5	433.5	408.5	443.0	461.5	511.5
LB' <sup>2)</sup>	—	—	—	—	—	—	—	—	—	392.0	427.0	397.5	432.0	452.0	502.0
LBL	229.0	255.0	271.5	290.5	340.5	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    ⑥ ISO 4762    ⑦ Without locating shoulder +1mm

⑧ Use bores only for housing flange design

1) AD depends on the motor options, for other dimensions, see page 9/46.

2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

3) FDAS/FZAS not possible



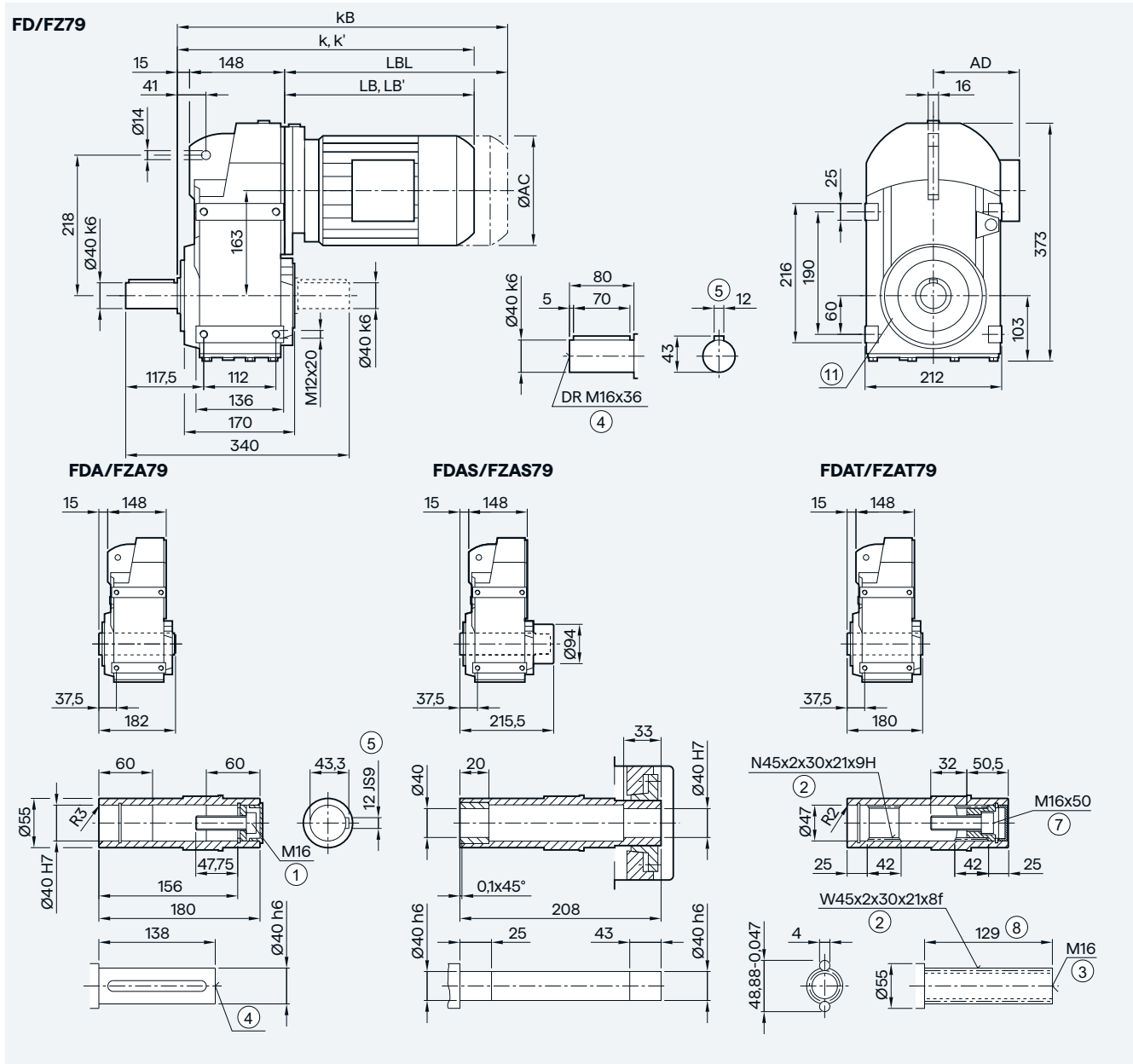




# Parallel shaft geared motors

## 2- and 3-stage

### Gearbox FZ../FD..79 in a foot-mounted design



Motor	LE71/ FZ71	LE71Z/ FZ71Z	LE71Y	LE80	LE80Z	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112	LE112Z	LE132	LE132Z	LE160 <sup>3)</sup>	LE160Z <sup>3)</sup>
AC	138.8	138.8	138.8	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0
AD <sup>1)</sup>	134.0	134.0	134.0	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0
k	377.5	396.5	436.5	437.5	472.5	499.0	539.0	555.5	590.5	565.5	590.5	618.5	668.5	700.5	760.5
k' <sup>2)</sup>	—	—	—	—	—	—	—	549.0	584.0	554.5	579.5	609.0	659.0	685.5	745.5
KB	432.5	451.5	491.5	497.5	532.5	569.0	609.0	634.0	669.0	638.5	663.5	723.0	773.0	816.5	876.5
LB	214.5	233.5	273.5	274.5	309.5	336.0	376.0	392.5	427.5	402.5	427.5	455.5	505.5	537.5	597.5
LB' <sup>2)</sup>	—	—	—	—	—	—	—	386.0	421.0	391.5	416.5	446.0	496.0	522.5	582.5
LBL	269.5	288.5	328.5	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    ⑥ ISO 4762    ⑦ Without locating shoulder +1mm

⑧ Use bores only for housing flange design

1) AD depends on the motor options, for other dimensions, see page 9/46.

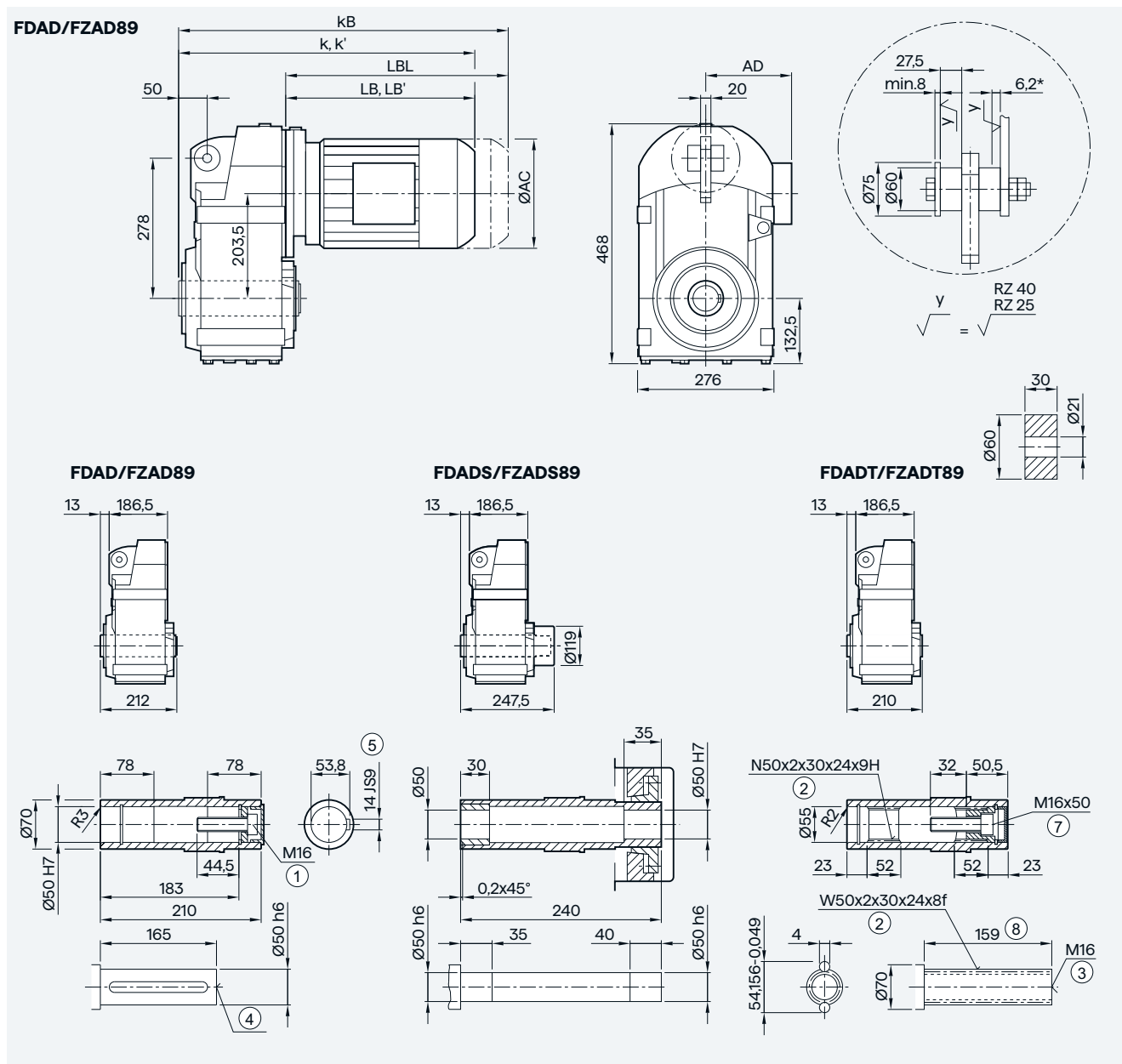
2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

3) FDAS/FZAS not possible

# Parallel shaft geared motors

2- and 3-stage

## Gearbox FZAD./FDAD.89 in a shaft-mounted design



4

Motor	LE80	LE80Z	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180 <sup>3)</sup>	LE180Z <sup>3)</sup>
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	461.0	496.0	522.5	562.5	575.0	610.0	585.0	610.0	638.0	688.0	720.0	780.0	793.0	823.0
k' <sup>2)</sup>	—	—	—	—	568.5	603.5	574.0	599.0	628.5	678.5	705.0	765.0	—	—
kB	521.0	556.0	592.5	632.5	653.5	688.5	658.0	683.0	742.5	792.5	836.0	896.0	922.0	952.0
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
LB' <sup>2)</sup>	—	—	—	—	369.0	404.0	374.5	399.5	429.0	479.0	505.5	565.5	—	—
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    ⑥ ISO 4762    ⑦ Without locating shoulder +1mm

\* Spring compression at max. torque

1) AD depends on the motor options, for other dimensions, see page 9/46.

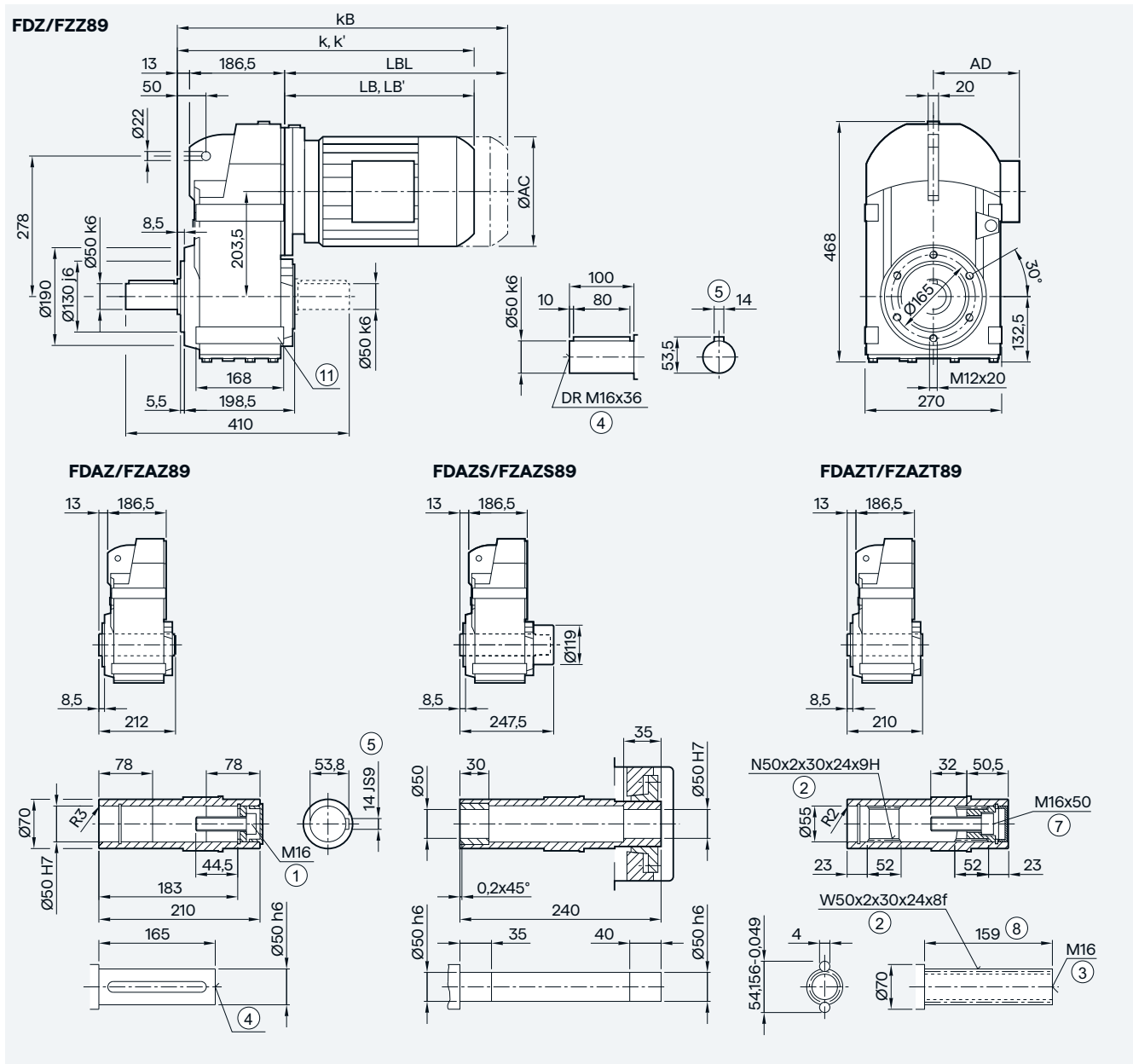
2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

3) FDAS/FZAS not possible

# Parallel shaft geared motors

## 2- and 3-stage

### Gearbox FZ.Z./FD.Z.89 in a housing flange design



Motor	LE80	LE80Z	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180 <sup>3)</sup>	LE180Z <sup>3)</sup>
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	461.0	496.0	522.5	562.5	575.0	610.0	585.0	610.0	638.0	688.0	720.0	780.0	793.0	823.0
k' <sup>2)</sup>	—	—	—	—	568.5	603.5	574.0	599.0	628.5	678.5	705.0	765.0	—	—
KB	521.0	556.0	592.5	632.5	653.5	688.5	658.0	683.0	742.5	792.5	836.0	896.0	922.0	952.0
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
LB' <sup>2)</sup>	—	—	—	—	369.0	404.0	374.5	399.5	429.0	479.0	505.5	565.5	—	—
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    ⑥ ISO 4762    ⑦ Without locating shoulder +1mm

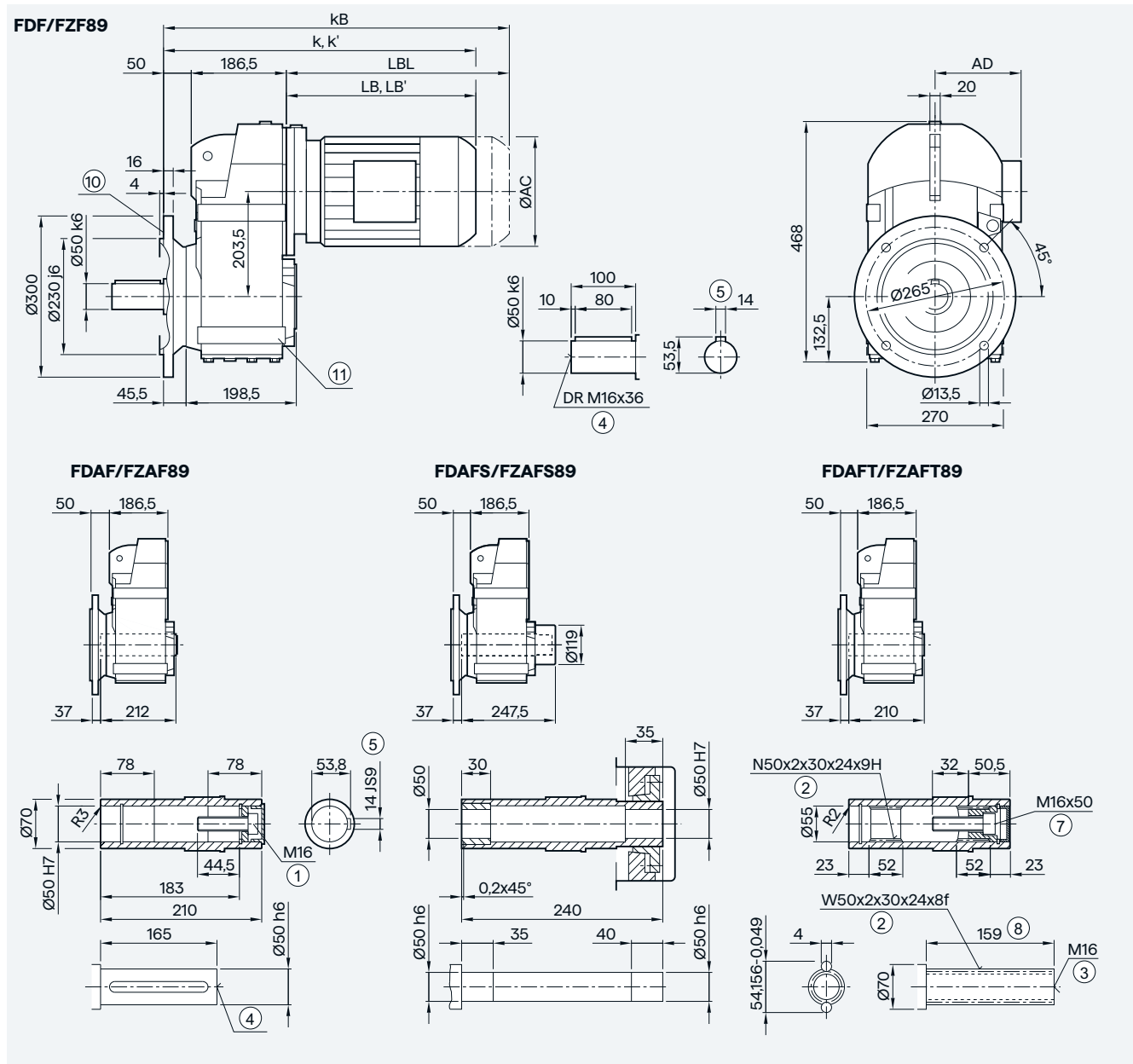
⑧ Use bores only for foot-mounted design

1) AD depends on the motor options, for other dimensions, see page 9/46.

2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

3) FDAS/FZAS not possible

Gearbox FZ.F./FD.F.89 in a flange-mounted design



4

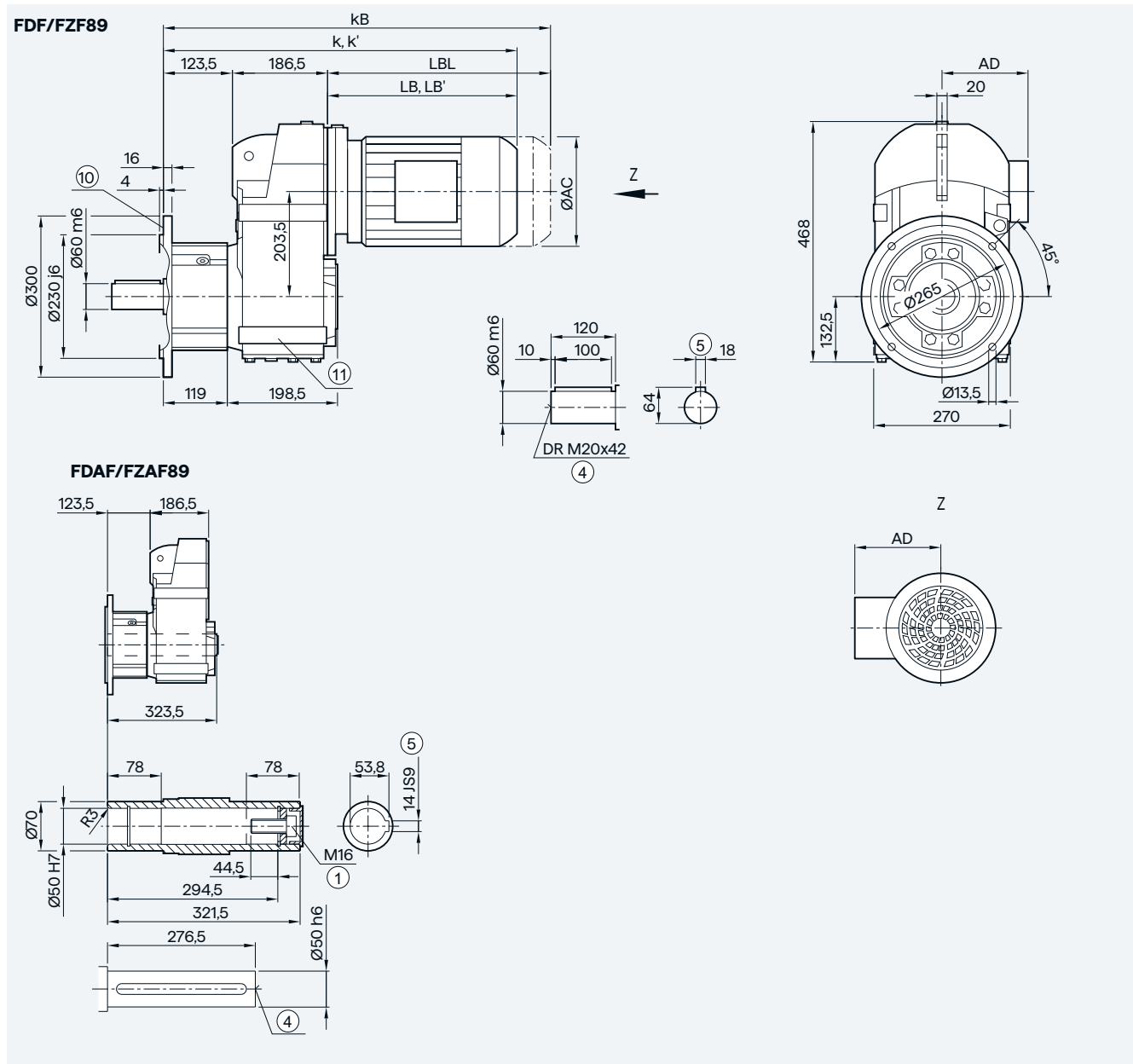
Motor	LE80	LE80Z	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180 <sup>3)</sup>	LE180Z <sup>3)</sup>
AC	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5
AD <sup>1)</sup>	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0
k	498.0	533.0	559.5	599.5	612.0	647.0	622.0	647.0	675.0	725.0	757.0	817.0	830.0	860.0
k' <sup>2)</sup>	—	—	—	—	605.5	640.5	611.0	636.0	665.5	715.5	742.0	802.0	—	—
kB	558.0	593.0	629.5	669.5	690.5	725.5	695.0	720.0	779.5	829.5	873.0	933.0	959.0	989.0
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
LB' <sup>2)</sup>	—	—	—	—	369.0	404.0	374.5	399.5	429.0	479.0	505.5	565.5	—	—
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    ⑥ ISO 4762    ⑦ Without locating shoulder +1mm  
 ⑧ For inner contour, see page 4/129    ⑨ Use bores only for foot-mounted design  
 1) AD depends on the motor options, for other dimensions, see page 9/46.  
 2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.  
 3) FDAFS/FZAFS not possible

## Parallel shaft geared motors

### 2- and 3-stage

#### Gearbox FZ.F./FD.F.89 in a flange-mounted design with VLplus reinforced bearing system (G30)



Motor	LE80	LE80Z	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z
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	571.5	606.5	633.0	673.0	685.5	720.5	695.5	720.5	748.5	798.5	830.5	890.5	903.5	933.5
k' <sup>2)</sup>	—	—	—	—	679.0	714.0	684.5	709.5	739.0	789.0	815.5	875.5	—	—
kB	631.5	666.5	703.0	743.0	764.0	799.0	768.5	793.5	853.0	903.0	946.5	1006.5	1033.0	1062.5
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
LB' <sup>2)</sup>	—	—	—	—	369.0	404.0	374.5	399.5	429.0	479.0	505.5	565.5	—	—
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

⑩ ISO 4014

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

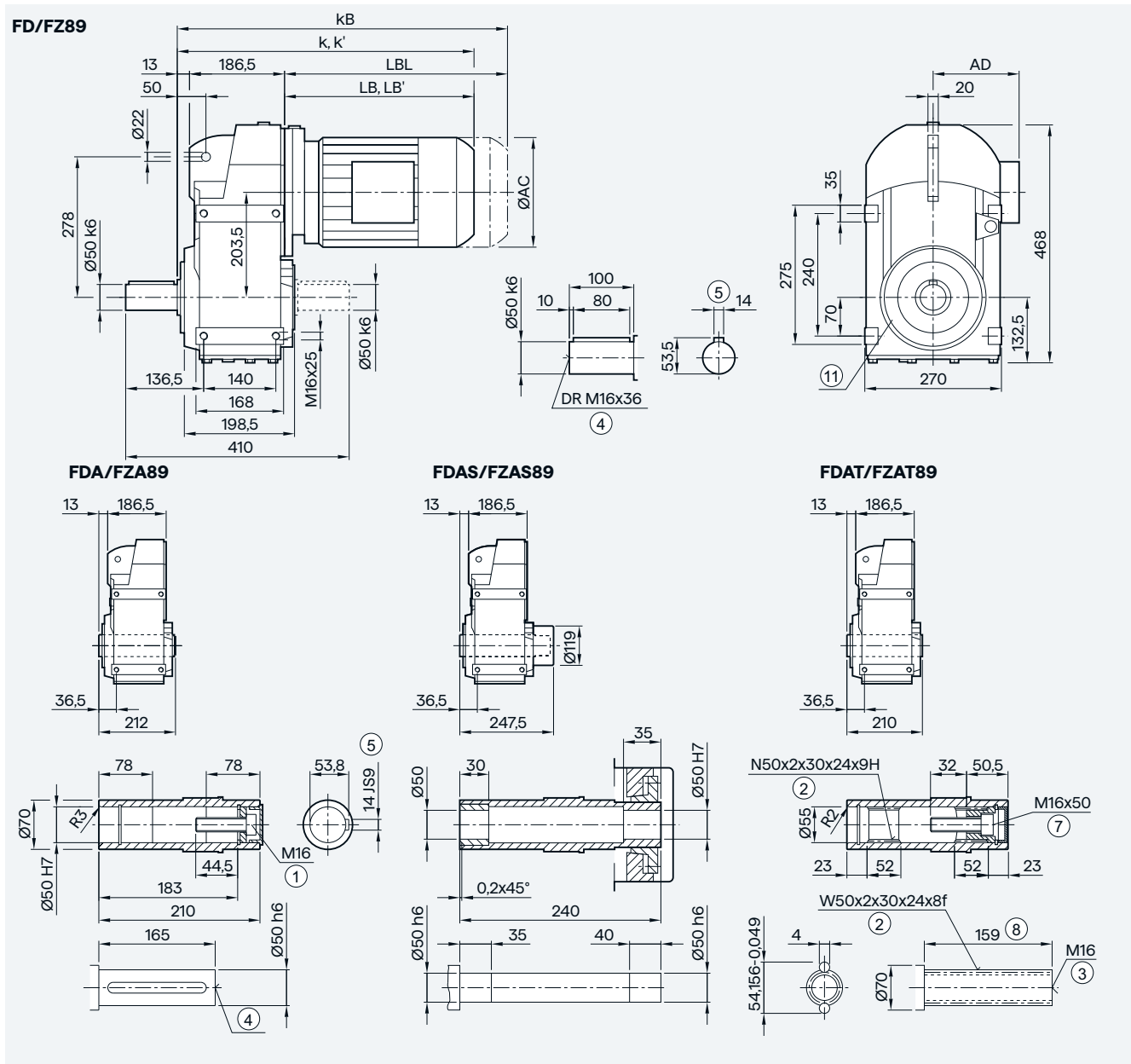
⑥ Use bores only for foot-mounted design

⑨ For inner contour, see page 4/129

1) AD depends on the motor options, for other dimensions, see page 9/46.

2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

**Gearbox FZ../FD..89 in a foot-mounted design**



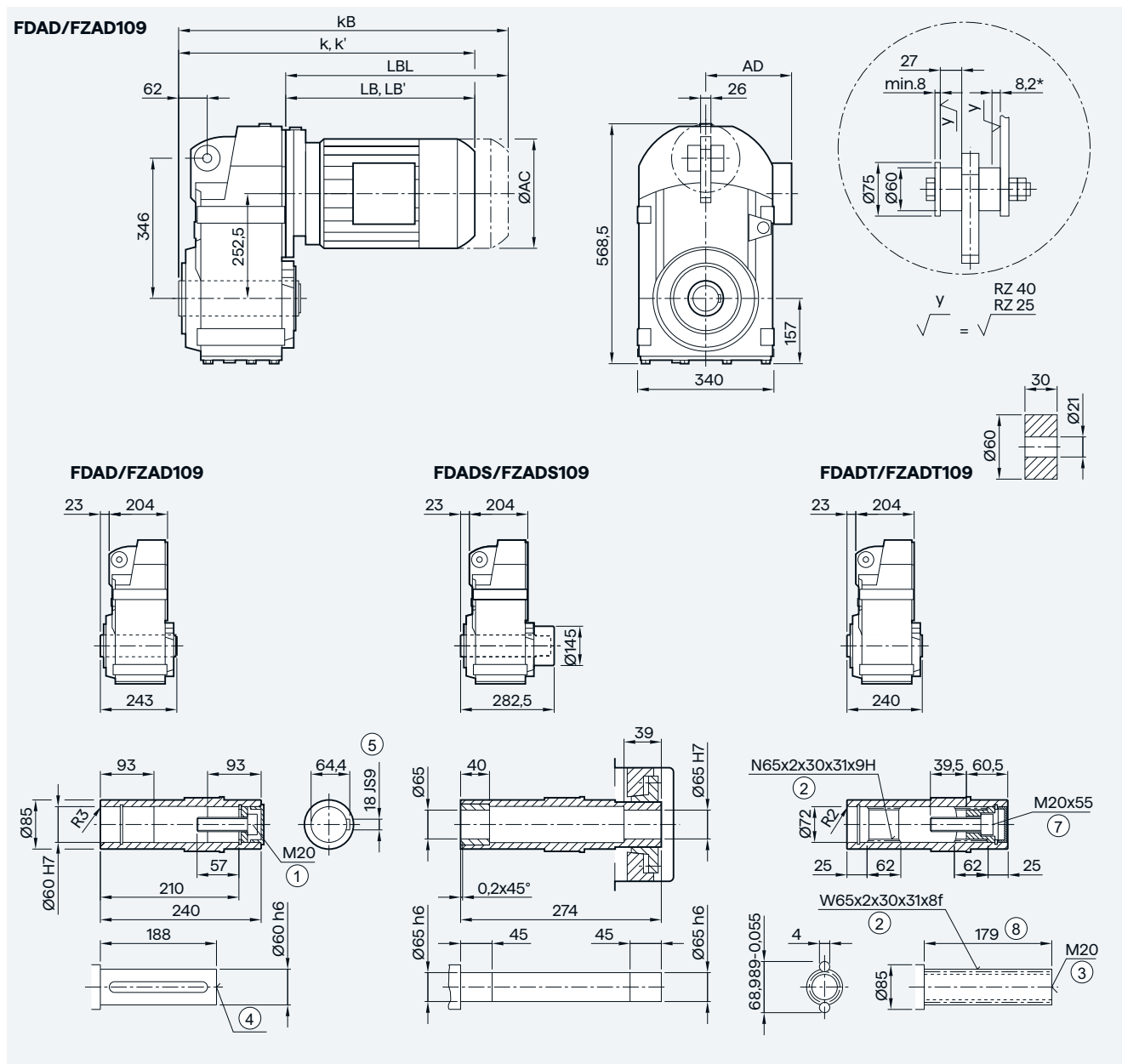
Motor	LE80	LE80Z	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180 <sup>3)</sup>	LE180Z <sup>3)</sup>
AC	156.3	156.3	173.8	173.8	198.0	198.0	222.0	222.0	264.0	264.0	318.0	318.0	352.5	352.5
AD <sup>1)</sup>	149.2	149.2	154.2	154.2	170.5	170.5	181.5	181.5	207.0	207.0	241.0	241.0	292.0	292.0
k	461.0	496.0	522.5	562.5	575.0	610.0	585.0	610.0	638.0	688.0	720.0	780.0	793.0	823.0
k' <sup>2)</sup>	—	—	—	—	568.5	603.5	574.0	599.0	628.5	678.5	705.0	765.0	—	—
KB	521.0	556.0	592.5	632.5	653.5	688.5	658.0	683.0	742.5	792.5	836.0	896.0	922.0	952.0
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
LB' <sup>2)</sup>	—	—	—	—	369.0	404.0	374.5	399.5	429.0	479.0	505.5	565.5	—	—
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    ⑥ ISO 4762    ⑦ Without locating shoulder +1mm  
 ⑧ Use bores only for housing flange design  
 1) AD depends on the motor options, for other dimensions, see page 9/46.  
 2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.  
 3) FDAS/FZAS not possible

# Parallel shaft geared motors

## 2- and 3-stage

### Gearbox FZAD./FDAD.109 in a shaft-mounted design



Motor	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z	LES200	LES200Z	LES225 <sup>3)</sup>	LES225Y <sup>3)</sup>
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	543.0	583.0	593.5	628.5	603.5	628.5	656.5	706.5	738.5	798.5	811.5	841.5	879.5	904.5	925.0	985.0
k' <sup>2)</sup>	—	—	587.0	622.0	592.5	617.5	647.0	697.0	723.5	783.5	—	—	—	—	—	—
kB	613.0	653.0	672.0	707.0	676.5	701.5	761.0	811.0	854.5	914.5	940.5	970.5	1026.5	1051.5	1153.0	1213.0
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
LB' <sup>2)</sup>	—	—	360.0	395.0	365.5	390.5	420.0	470.0	496.5	556.5	—	—	—	—	—	—
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    ⑥ ISO 4762    ⑦ Without locating shoulder +1 mm

\* Spring compression at max. torque

1) AD depends on the motor options, for other dimensions, see page 9/46.

2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

3) FDAS/FZAS not possible

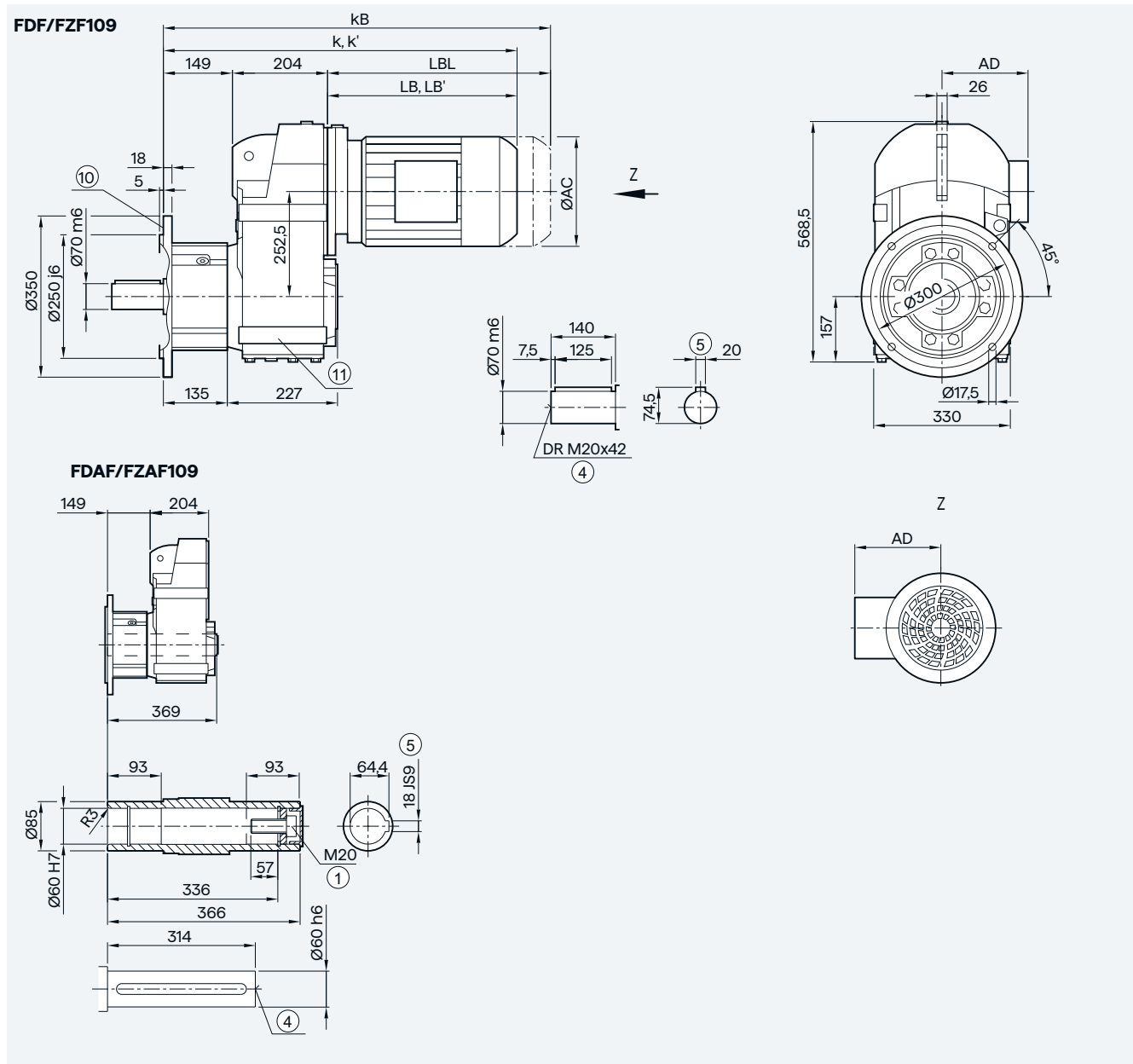




# Parallel shaft geared motors

2- and 3-stage

## Gearbox FZ.F./FD.F.109 in a flange-mounted design with VLplus reinforced bearing system (G30)



4

Motor	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z	LES200	LES200Z	LES225 <sup>3)</sup>	LES225Y <sup>3)</sup>
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	669.0	709.0	719.5	754.5	729.5	754.5	782.5	832.5	864.5	924.5	937.5	967.5	1005.5	1030.5	1051.0	1111.0
k' <sup>2)</sup>	—	—	713.0	748.0	718.5	743.5	773.0	823.0	849.5	909.5	—	—	—	—	—	—
kB	739.0	779.0	798.0	833.0	802.5	827.5	887.0	937.0	980.5	1040.5	1066.5	1096.5	1152.5	1177.5	1279.0	1339.0
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
LB' <sup>2)</sup>	—	—	360.0	395.0	365.5	390.5	420.0	470.0	496.5	556.5	—	—	—	—	—	—
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

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

⑥ Use bores only for foot-mounted design

⑩ For inner contour, see page 4/129

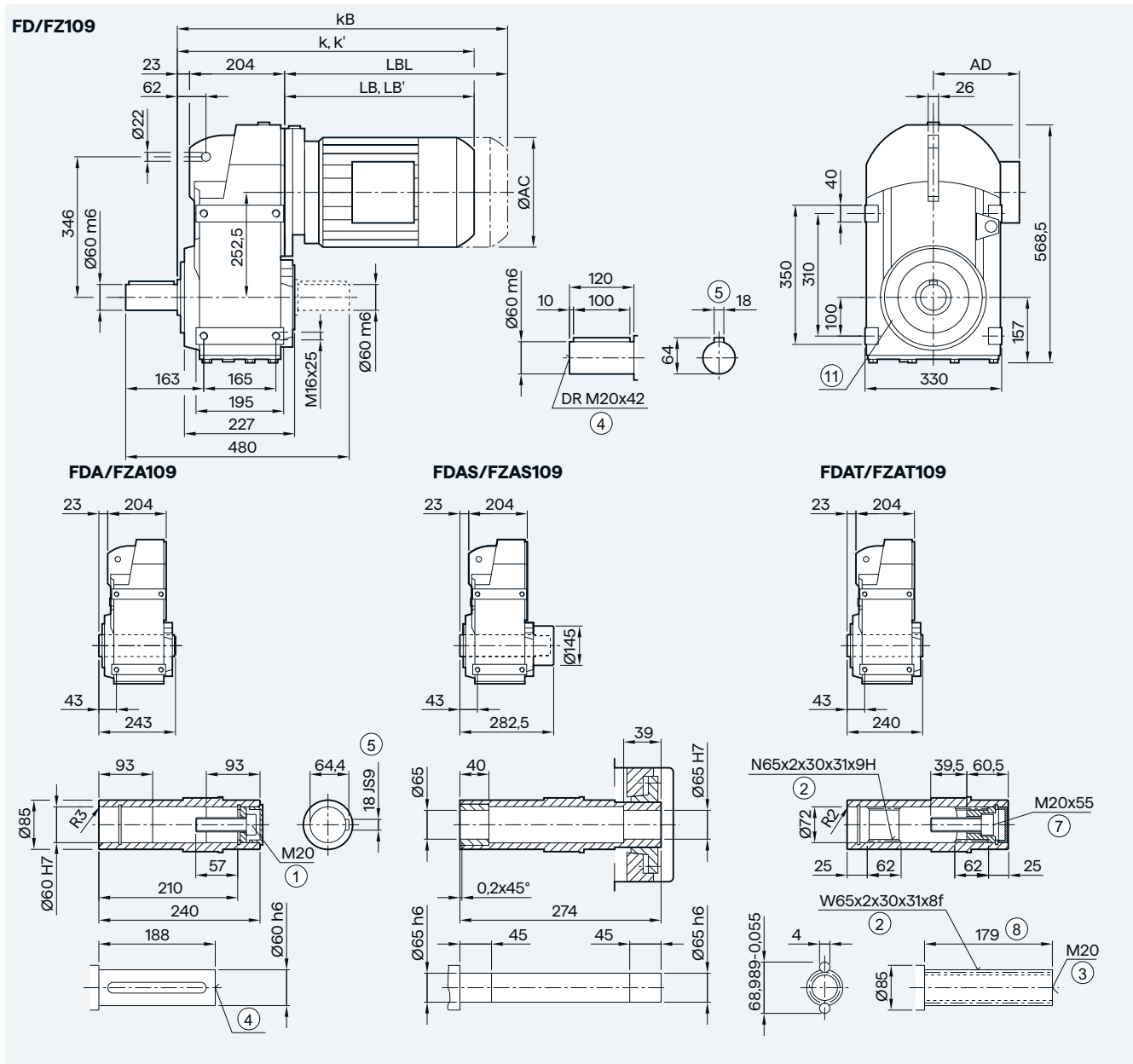
<sup>1)</sup> AD depends on the motor options, for other dimensions, see page 9/46.

<sup>2)</sup> k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

# Parallel shaft geared motors

## 2- and 3-stage

### Gearbox FD. /FZ.109 in a foot-mounted design



Motor	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z	LES200	LES200Z	LES225 <sup>3)</sup>	LES225Y <sup>3)</sup>
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	543,0	583,0	593,5	628,5	603,5	628,5	656,5	706,5	738,5	798,5	811,5	841,5	879,5	904,5	925,0	985,0
k' <sup>2)</sup>	—	—	587,0	622,0	592,5	617,5	647,0	697,0	723,5	783,5	—	—	—	—	—	—
KB	613,0	653,0	672,0	707,0	676,5	701,5	761,0	811,0	854,5	914,5	940,5	970,5	1026,5	1051,5	1153,0	1213,0
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
LB' <sup>2)</sup>	—	—	360,0	395,0	365,5	390,5	420,0	470,0	496,5	556,5	—	—	—	—	—	—
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    ⑥ ISO 4762    ⑦ Without locating shoulder +1mm

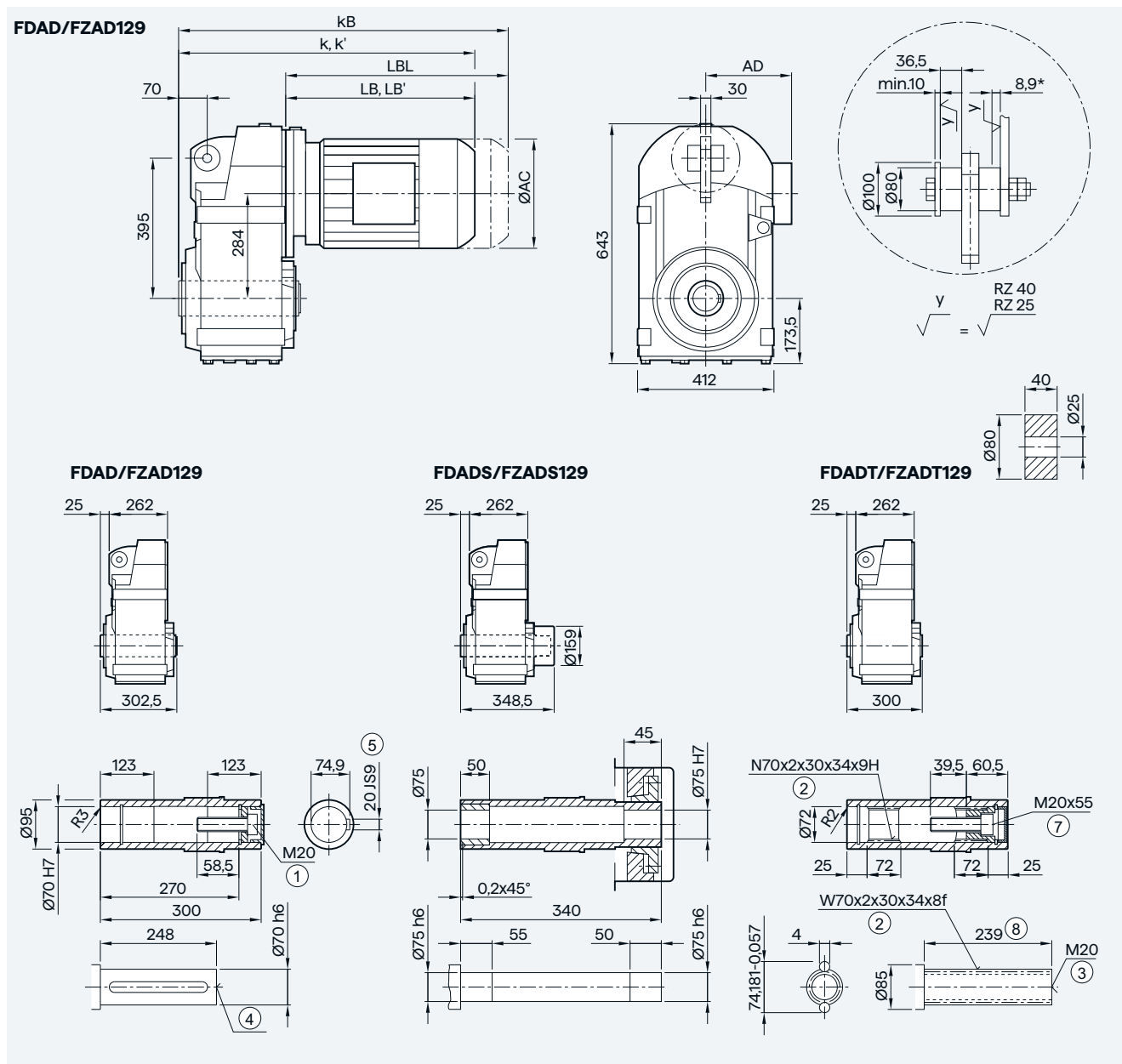
⑧ Use bores only for housing flange design

1) AD depends on the motor options, for other dimensions, see page 9/46.

2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

3) FDAS/FZAS not possible

Gearbox FZAD./FDAD.129 in a shaft-mounted design



4

Motor	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z	LES200	LES200Z	LES225	LES225Y	LES250 <sup>3)</sup>
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	596.0	636.0	644.5	679.5	654.5	679.5	705.5	755.5	787.5	847.5	860.5	890.5	928.5	953.5	974.0	1034.0	1085.5
k' <sup>2)</sup>	—	—	638.0	673.0	643.5	668.5	696.0	746.0	772.5	832.5	—	—	—	—	—	—	—
kB	666.0	706.0	723.0	758.0	727.5	752.5	810.0	860.0	903.5	963.5	989.5	1019.5	1075.5	1100.5	1202.0	1262.0	1310.5
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	687.0	747.0	798.5
LB' <sup>2)</sup>	—	—	351.0	386.0	356.5	381.5	409.0	459.0	485.5	545.5	—	—	—	—	—	—	—
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	915.0	975.0	1023.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑥ ISO 4762    ⑦ Without locating shoulder +1 mm

\* Spring compression at max. torque

1) AD depends on the motor options, for other dimensions, see page 9/46.

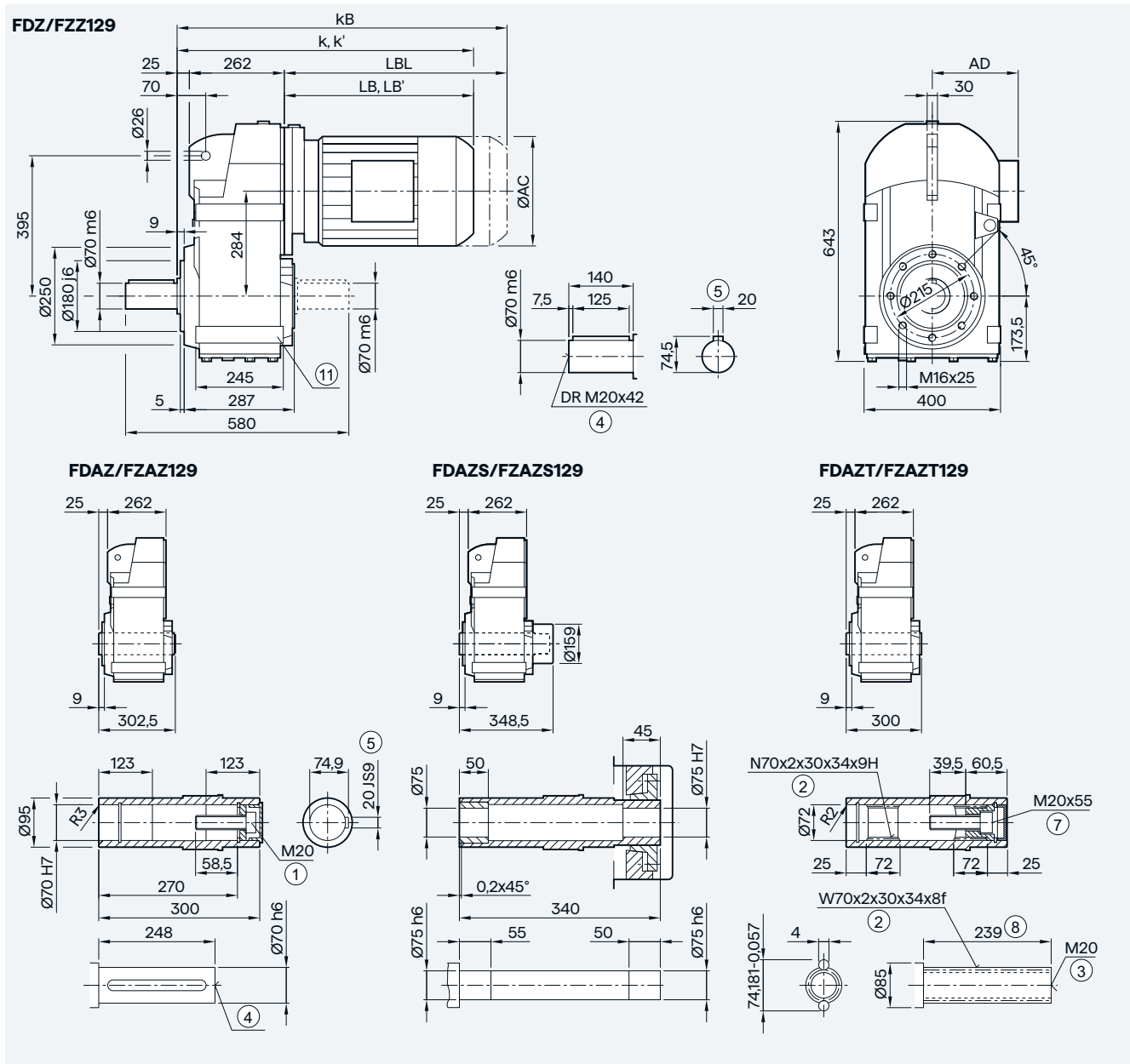
2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

3) FDAS/FZAS not possible

# Parallel shaft geared motors

## 2- and 3-stage

### Gearbox FZ.Z./FD.Z.129 in a housing flange design



Motor	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z	LES200	LES200Z	LES225	LES225Y	LES250 <sup>3)</sup>
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	596.0	636.0	644.5	679.5	654.5	679.5	705.5	755.5	787.5	847.5	860.5	890.5	928.5	953.5	974.0	1034.0	1085.5
k' <sup>2)</sup>	—	—	638.0	673.0	643.5	668.5	696.0	746.0	772.5	832.5	—	—	—	—	—	—	—
kB	666.0	706.0	723.0	758.0	727.5	752.5	810.0	860.0	903.5	963.5	989.5	1019.5	1075.5	1100.5	1202.0	1262.0	1310.5
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	687.0	747.0	798.5
LB' <sup>2)</sup>	—	—	351.0	386.0	356.5	381.5	409.0	459.0	485.5	545.5	—	—	—	—	—	—	—
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	915.0	975.0	1023.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑥ ISO 4762    ⑦ Without locating shoulder +1 mm

⑧ Use bores only for foot-mounted design

1) AD depends on the motor options, for other dimensions, see page 9/46.

2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

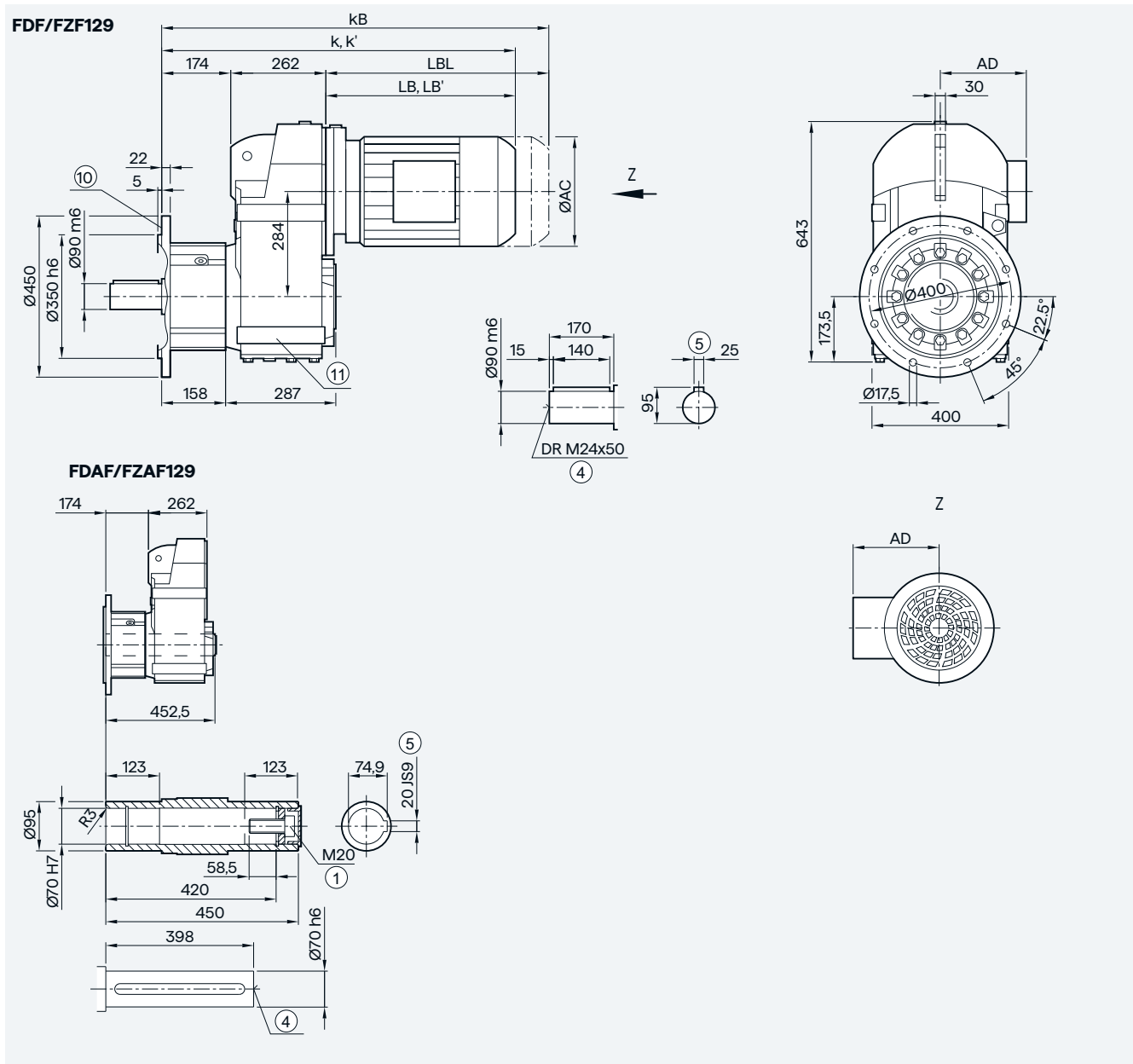
3) FDAS/FZAS not possible



# Parallel shaft geared motors

2- and 3-stage

## Gearbox FZ.F./FD.F.129 in a flange-mounted design with VLplus reinforced bearing system (G30)



Motor	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z	LES200	LES200Z	LES225	LES225Y	LES250
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	745.0	751.0	793.5	828.5	803.5	828.5	854.5	904.5	936.5	996.5	1009.5	1039.5	1077.5	1102.5	1123.0	1183.0	1234.5
k' <sup>2)</sup>	—	—	787.0	822.0	792.5	817.5	845.0	895.0	921.5	981.5	—	—	—	—	—	—	—
kB	815.0	855.0	872.0	907.0	876.5	901.5	959.0	1009.0	1052.5	1112.5	1138.5	1168.5	1224.5	1249.5	1351.0	1411.0	1459.5
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	687.0	747.0	798.5
LB' <sup>2)</sup>	—	—	351.0	386.0	356.5	381.5	409.0	459.0	485.5	545.5	—	—	—	—	—	—	—
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	915.0	975.0	1023.5

① ISO 4014      ④ DIN 332      ⑤ Feather key/keyway DIN 6885-1      ⑩ Use bores only for foot-mounted design

⑨ For inner contour, see page 4/129

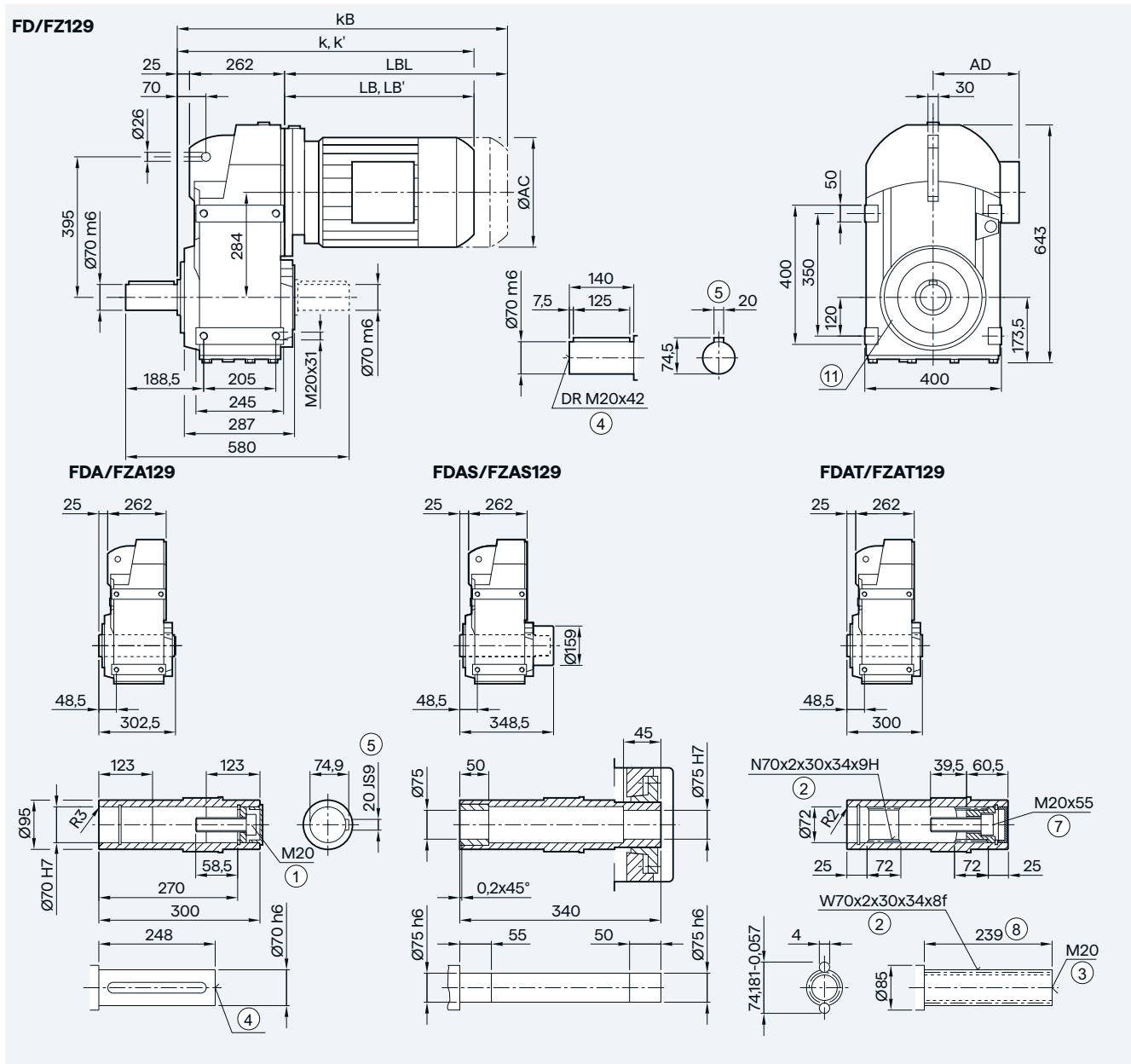
<sup>1)</sup> AD depends on the motor options, for other dimensions, see page 9/46.

<sup>2)</sup> k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

# Parallel shaft geared motors

2- and 3-stage

## Gearbox FZ../FD..129 in a foot-mounted design



Motor	LE90/ FZ90	LE90Z/ FZ90Z	LE100	LE100Z	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z	LES200	LES200Z	LES225	LES225Y	LES250 <sup>3)</sup>
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	596.0	636.0	644.5	679.5	654.5	679.5	705.5	755.5	787.5	847.5	860.5	890.5	928.5	953.5	974.0	1034.0	1085.5
k' <sup>2)</sup>	—	—	638.0	673.0	643.5	668.5	696.0	746.0	772.5	832.5	—	—	—	—	—	—	—
kB	666.0	706.0	723.0	758.0	727.5	752.5	810.0	860.0	903.5	963.5	989.5	1019.5	1075.5	1100.5	1202.0	1262.0	1310.5
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	687.0	747.0	798.5
LB' <sup>2)</sup>	—	—	351.0	386.0	356.5	381.5	409.0	459.0	485.5	545.5	—	—	—	—	—	—	—
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	915.0	975.0	1023.5

① ISO 4014    ② DIN 5480    ③ DIN 332-D    ④ DIN 332    ⑤ Feather key/keyway DIN 6885-1    ⑥ ISO 4762    ⑦ Without locating shoulder +1mm

⑧ Use bores only for housing flange design

1) AD depends on the motor options, for other dimensions, see page 9/46.

2) k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

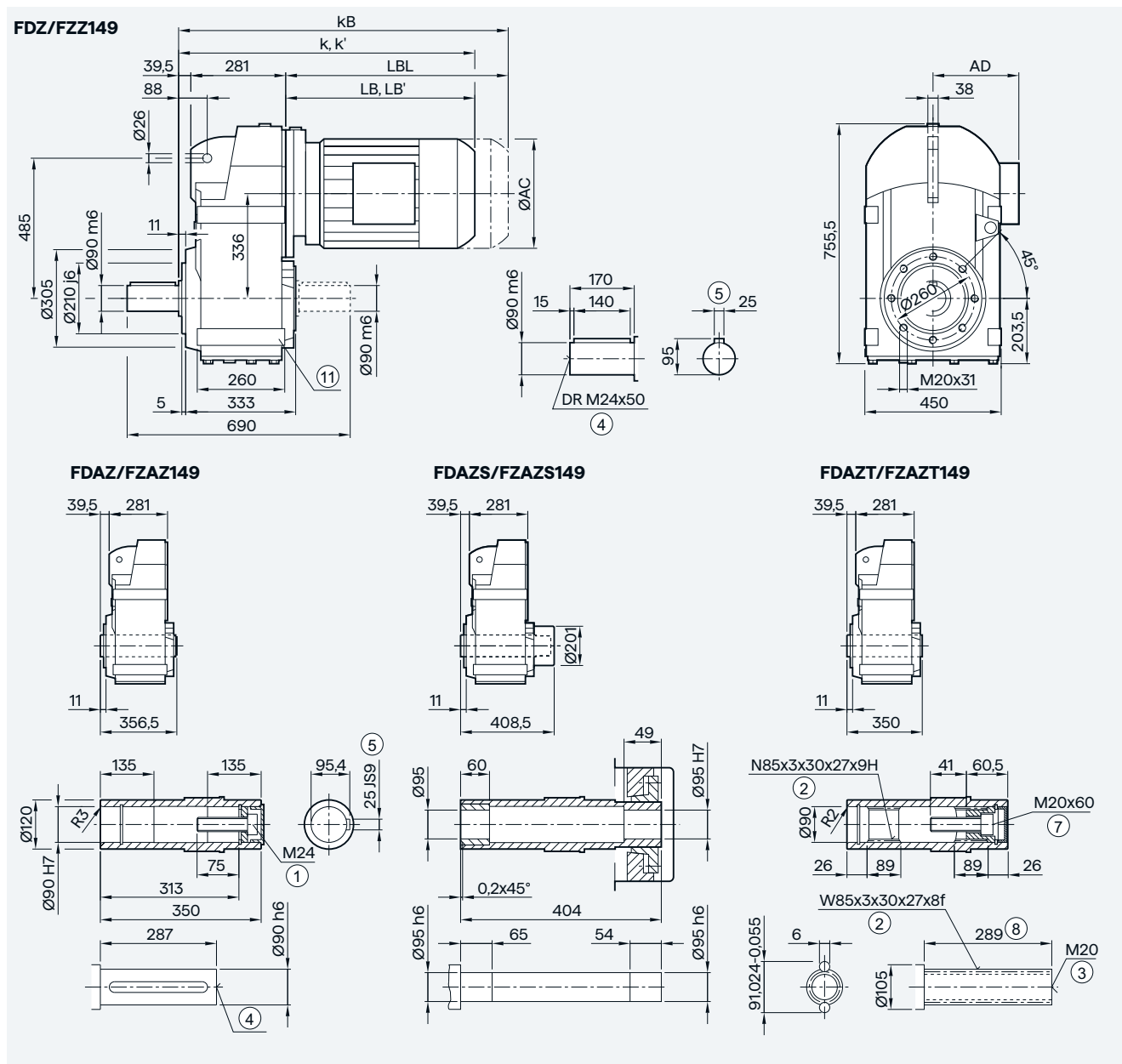
3) FDAS/FZAS not possible



# Parallel shaft geared motors

2- and 3-stage

## Gearbox FZ.Z./FD.Z.149 in a housing flange design



Motor	LE100	LE100Z	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z	LES200	LES200Z	LES225	LES225Y	LES250
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	676.5	711.5	686.5	711.5	732.5	782.5	814.5	874.5	887.5	917.5	955.5	980.5	1000.5	1060.5	1112.0
k' <sup>2)</sup>	670.0	705.0	675.5	700.5	723.0	773.0	799.5	859.5	—	—	—	—	—	—	—
kB	755.0	790.0	759.5	784.5	837.0	887.0	930.5	990.5	1016.5	1046.5	1102.5	1127.5	1229.0	1289.0	1337.0
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
LB' <sup>2)</sup>	349.5	384.5	355.0	380.0	402.5	452.5	479.0	539.0	—	—	—	—	—	—	—
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    ⑥ ISO 4762    ⑦ Without locating shoulder +1 mm

⑧ Use bores only for foot-mounted design

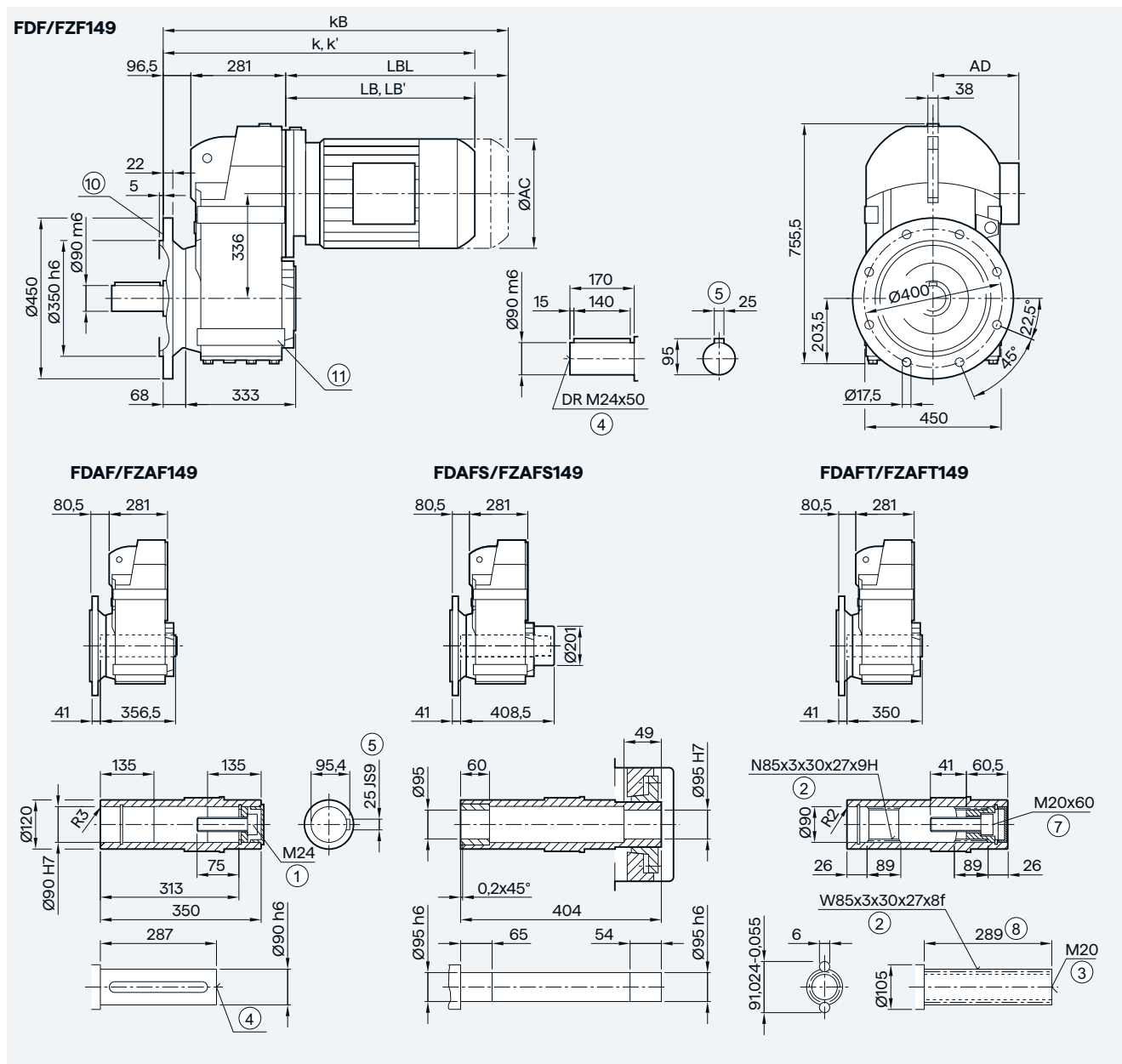
<sup>1)</sup> AD depends on the motor options, for other dimensions, see page 9/46.

<sup>2)</sup> k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

# Parallel shaft geared motors

## 2- and 3-stage

### Gearbox FZ.F./FD.F.149 in a flange-mounted design



Motor	LE100	LE100Z	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z	LES200	LES200Z	LES225	LES225Y	LES250
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	734.0	769.0	744.0	769.0	790.0	840.0	872.0	932.0	945.0	975.0	1013.0	1038.0	1058.5	1118.5	1170.0
k' <sup>2)</sup>	727.5	762.5	733.0	758.0	780.5	830.5	857.0	917.0	—	—	—	—	—	—	—
kB	812.5	847.5	817.0	842.0	894.5	944.5	988.0	1048.0	1074.0	1104.0	1160.0	1185.0	1286.5	1346.5	1395.0
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
LB' <sup>2)</sup>	349.5	384.5	355.0	380.0	402.5	452.5	479.0	539.0	—	—	—	—	—	—	—
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    ⑥ ISO 4762    ⑦ Without locating shoulder +1 mm  
 ⑧ For inner contour, see page 4/129    ⑨ Use bores only for foot-mounted design

<sup>1)</sup> AD depends on the motor options, for other dimensions, see page 9/46.

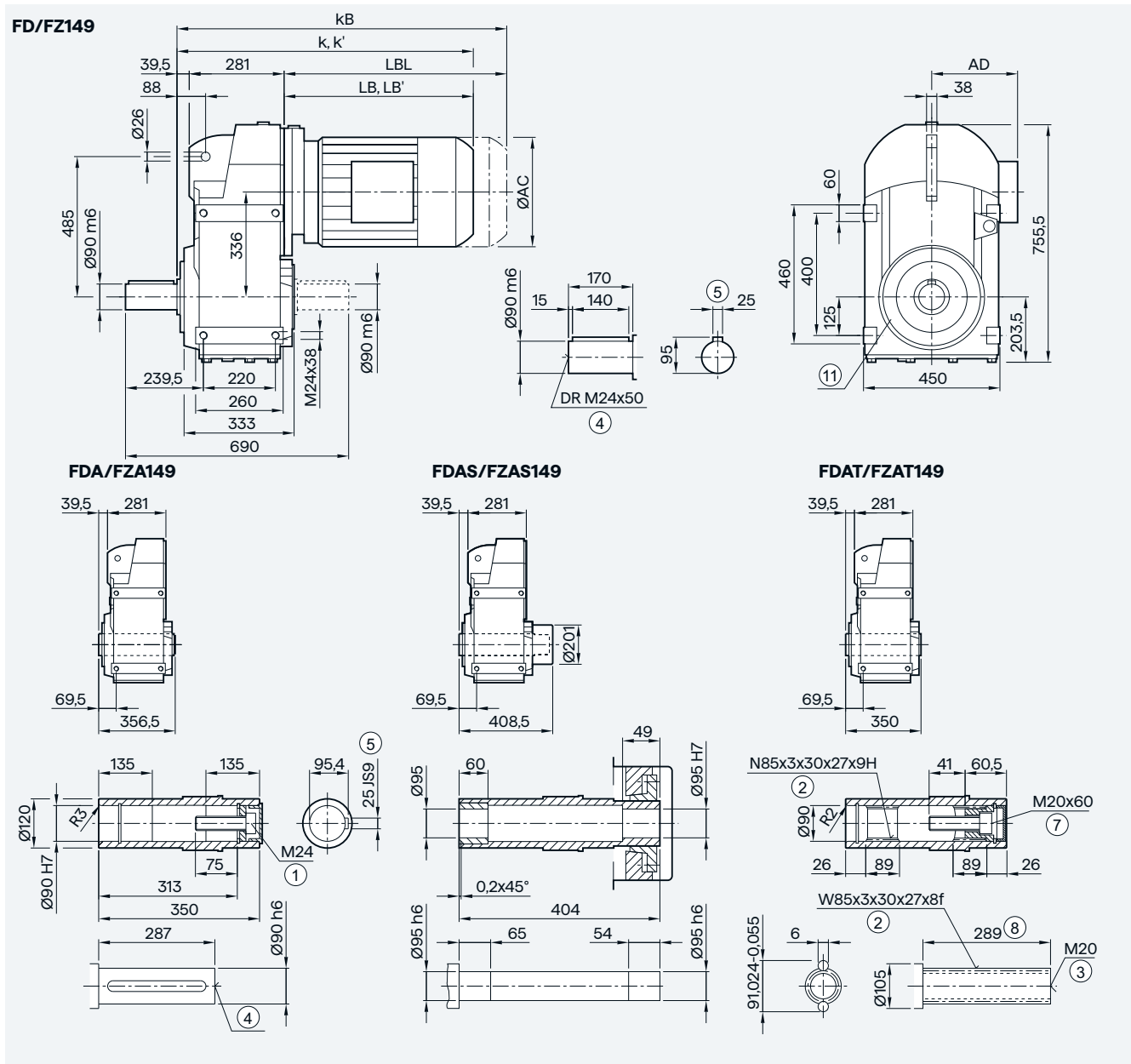
<sup>2)</sup> k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.



# Parallel shaft geared motors

## 2- and 3-stage

### Gearbox FZ../FD..149 in a foot-mounted design



Motor	LE100	LE100Z	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z	LES200	LES200Z	LES225	LES225Y	LES250
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	676.5	711.5	686.5	711.5	732.5	782.5	814.5	874.5	887.5	917.5	955.5	980.5	1000.5	1060.5	1112.0
k' <sup>2)</sup>	670.0	705.0	675.5	700.5	723.0	773.0	799.5	859.5	—	—	—	—	—	—	—
kB	755.0	790.0	759.5	784.5	837.0	887.0	930.5	990.5	1016.5	1046.5	1102.5	1127.5	1229.0	1289.0	1337.0
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
LB' <sup>2)</sup>	349.5	384.5	355.0	380.0	402.5	452.5	479.0	539.0	—	—	—	—	—	—	—
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    ⑥ ISO 4762    ⑦ Without locating shoulder +1 mm

⑧ Use bores only for housing flange design

<sup>1)</sup> AD depends on the motor options, for other dimensions, see page 9/46.

<sup>2)</sup> k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

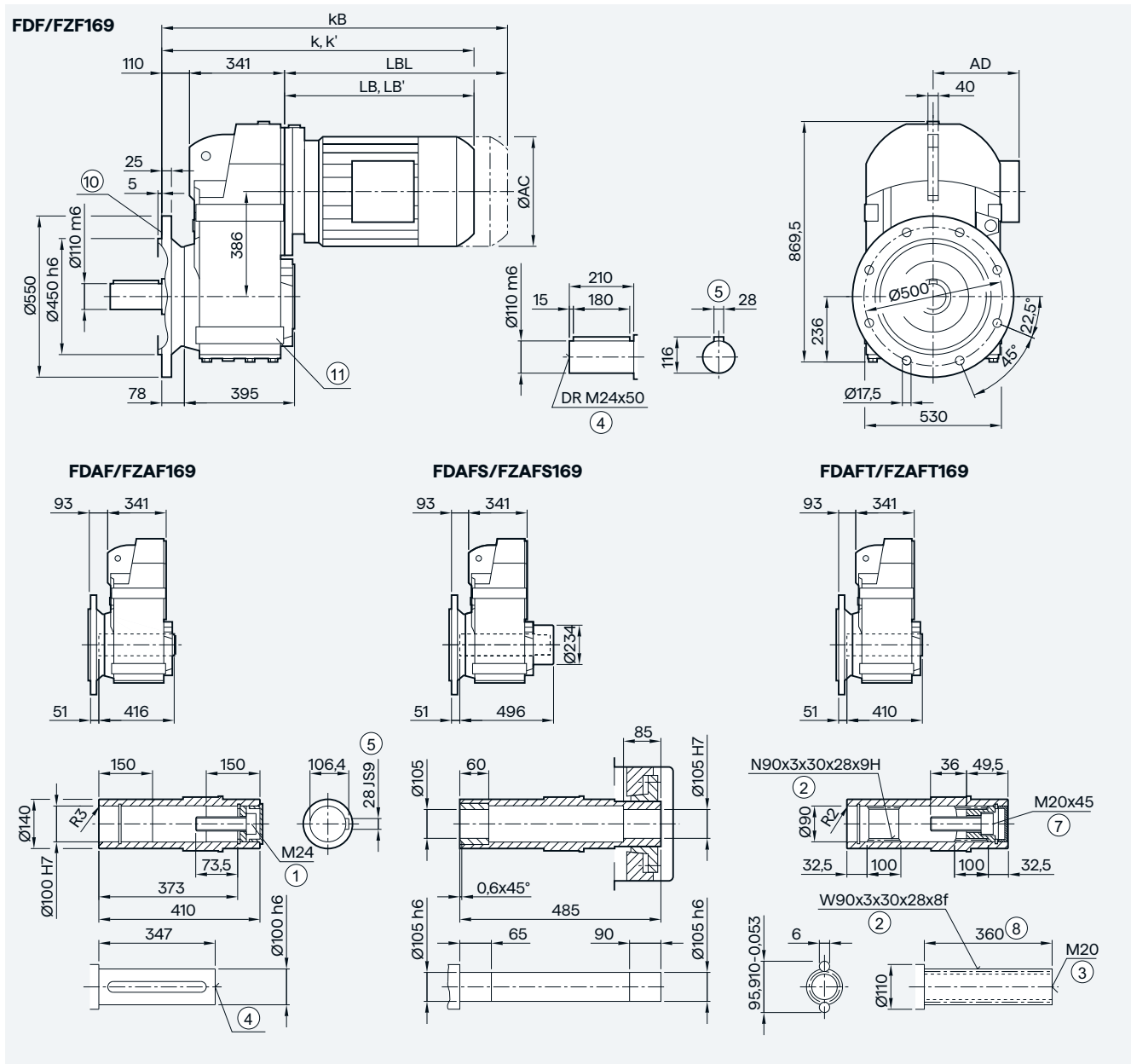




# Parallel shaft geared motors

2- and 3-stage

## Gearbox FZ.F./FD.F.169 in a flange-mounted design



4

Motor	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z	LES200	LES200Z	LES225	LES225Y	LES250
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	804.5	829.5	850.0	900.0	932.0	992.0	1004.5	1034.5	1072.5	1097.5	1117.0	1177.0	1224.5
k' <sup>2)</sup>	793.5	818.5	840.5	890.5	917.0	977.0	—	—	—	—	—	—	—
kB	877.5	902.5	954.5	1004.5	1048.0	1108.0	1133.5	1163.5	1219.5	1244.5	1345.0	1405.0	1449.5
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
LB' <sup>2)</sup>	342.5	367.5	389.5	439.5	466.0	526.0	—	—	—	—	—	—	—
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    ⑥ ISO 4762    ⑦ Without locating shoulder +1 mm  
 ⑧ For inner contour, see page 4/129    ⑨ Use bores only for foot-mounted design

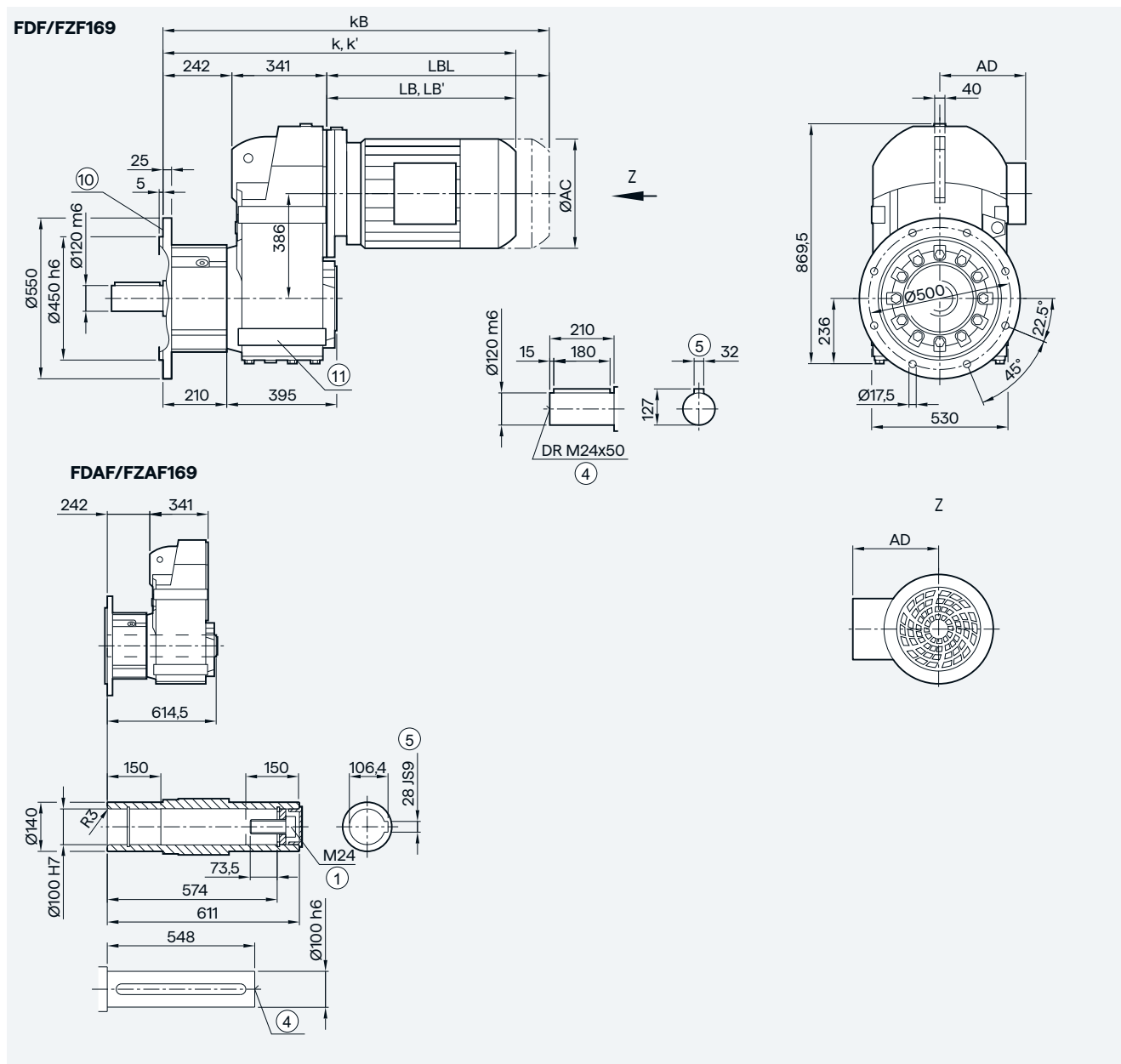
<sup>1)</sup> AD depends on the motor options, for other dimensions, see page 9/46.

<sup>2)</sup> k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

# Parallel shaft geared motors

## 2- and 3-stage

### Gearbox FZ.F./FD.F.169 in a flange-mounted design with VLplus reinforced bearing system (G30)



Motor	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z	LES200	LES200Z	LES225	LES225Y	LES250
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	936.5	961.5	982.0	1032.0	1064.0	1124.0	1136.5	1166.5	1204.5	1129.5	1249.0	1309.0	1356.5
k' <sup>2)</sup>	925.5	950.5	972.5	1022.5	1049.0	1109.0	—	—	—	—	—	—	—
kB	1009.5	1034.5	1086.5	1136.5	1180.0	1240.0	1265.5	1295.5	1351.5	1376.5	1477.0	1537.0	1581.5
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
LB' <sup>2)</sup>	342.5	367.5	389.5	439.5	466.0	526.0	—	—	—	—	—	—	—
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

⑩ ISO 4014

④ DIN 332

⑤ Feather key/keyway DIN 6885-1

⑩ Use bores only for foot-mounted design

⑩ For inner contour, see page 4/129

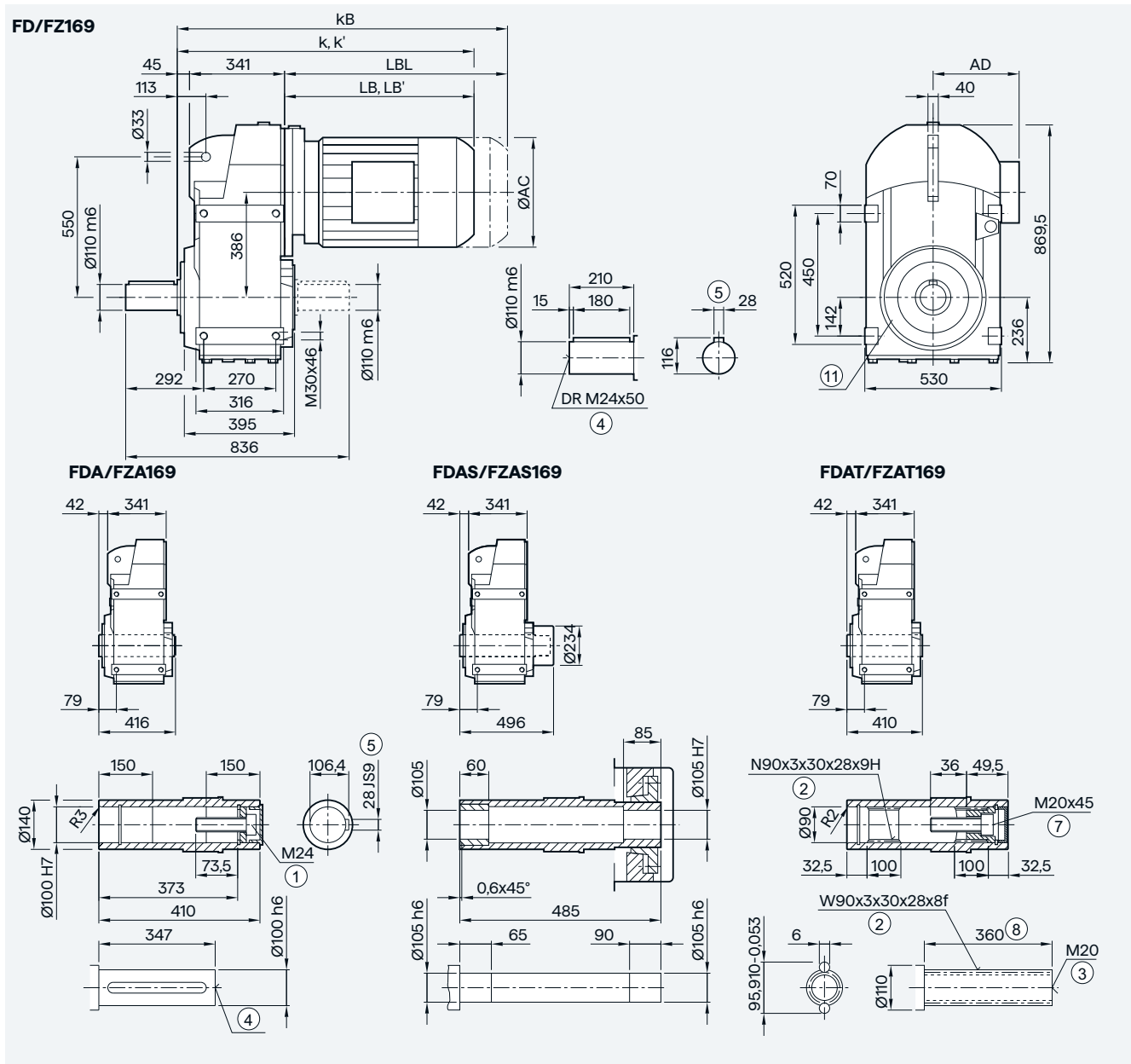
<sup>1)</sup> AD depends on the motor options, for other dimensions, see page 9/46.

<sup>2)</sup> k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

# Parallel shaft geared motors

2- and 3-stage

## Gearbox FZ../FD..169 in a foot-mounted design



Motor	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z	LES200	LES200Z	LES225	LES225Y	LES250
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	457.0
k	739.5	764.5	785.0	835.0	867.0	927.0	939.5	969.5	1007.5	1032.5	1052.5	1112.0	1159.5
k' <sup>2)</sup>	728.5	753.5	775.5	825.5	852.0	912.0	—	—	—	—	—	—	—
kB	812.5	837.5	889.5	939.5	983.0	1043.0	1068.5	1098.5	1154.5	1179.5	1280.0	1340.0	1384.5
LB	353.5	378.5	399.0	449.0	481.0	541.0	553.5	583.0	621.5	646.5	666.0	726.0	773.5
LB' <sup>2)</sup>	342.5	367.5	389.5	439.5	466.0	526.0	—	—	—	—	—	—	—
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    ⑥ ISO 4762    ⑦ Without locating shoulder +1mm

⑧ Use bores only for housing flange design

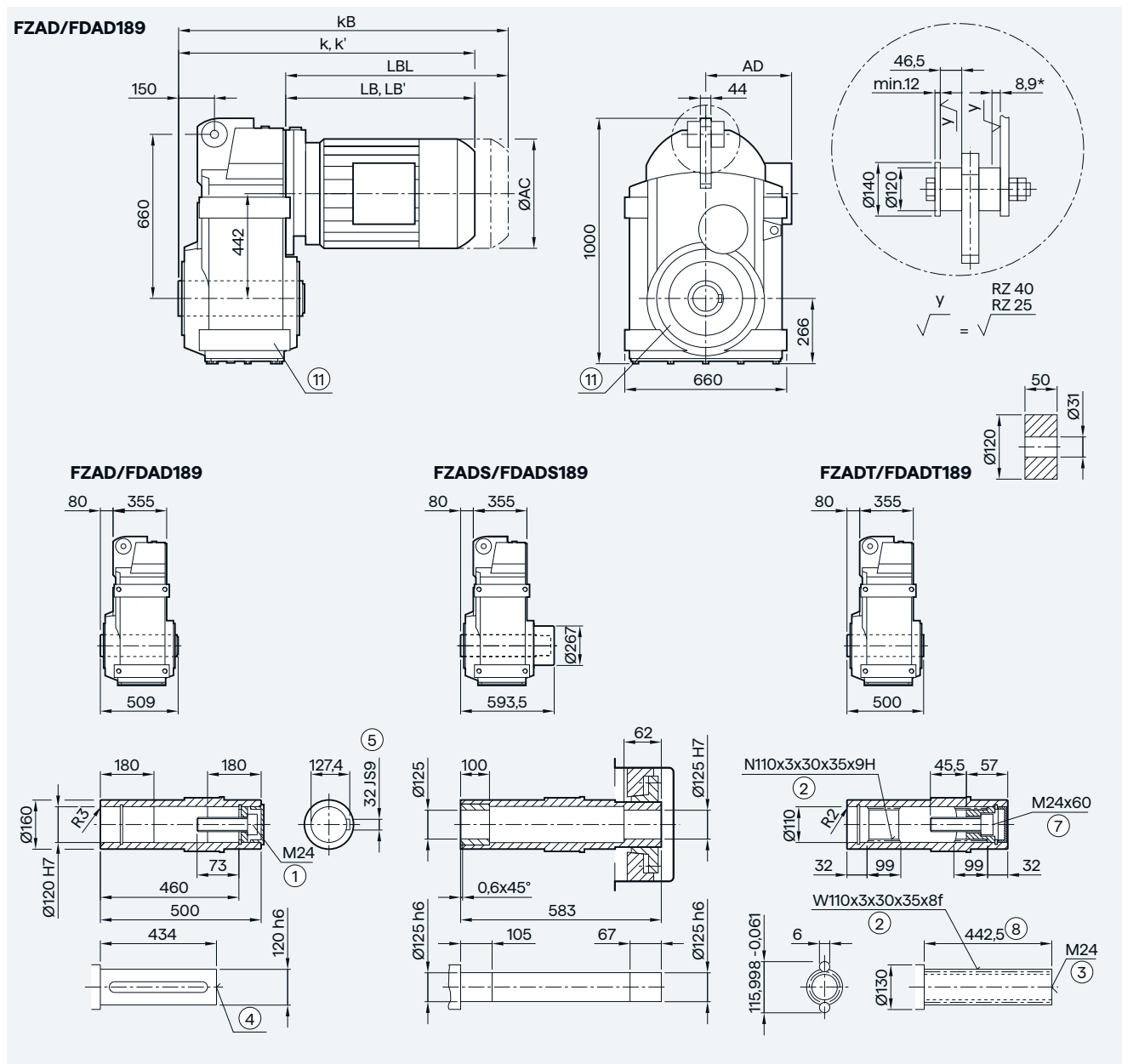
<sup>1)</sup> AD depends on the motor options, for other dimensions, see page 9/46.

<sup>2)</sup> k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

# Parallel shaft geared motors

## 2- and 3-stage

### Gearbox FZAD./FDAD.189 in a shaft-mounted design



Motor	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z	LES200	LES200Z	LES225	LES225Y	LES250
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	788.5	813.5	834.0	884.0	916.0	976.0	988.5	1018.5	1056.5	1081.5	1101.0	1161.0	1208.5
k' <sup>2)</sup>	777.5	802.5	824.5	874.5	901.0	961.0	—	—	—	—	—	—	—
kB	861.5	886.5	938.5	988.5	1032.0	1092.0	1117.5	1147.5	1203.5	1228.5	1329.0	1389.0	1433.5
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
LB' <sup>2)</sup>	342.5	367.5	389.5	439.5	466.0	526.0	—	—	—	—	—	—	—
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    ⑥ ISO 4762    ⑦ Without locating shoulder +1 mm

⑧ Use bores only for foot-mounted design

\* Spring compression at max. torque

<sup>1)</sup> AD depends on the motor options, for other dimensions, see page 9/46.

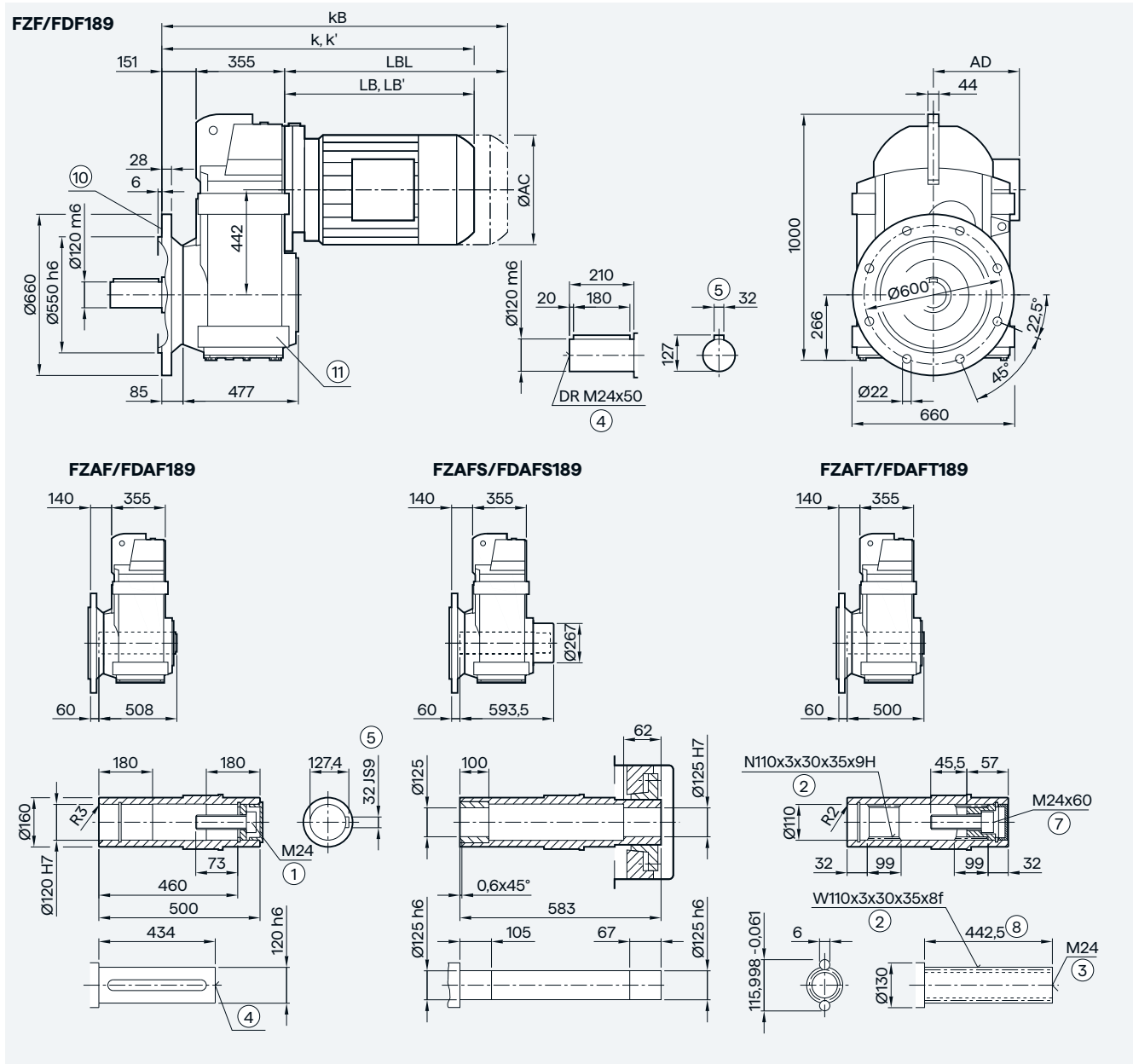
<sup>2)</sup> k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.



# Parallel shaft geared motors

## 2- and 3-stage

### Gearbox FZ.F./FD.F.189 in a flange-mounted design



Motor	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z	LES200	LES200Z	LES225	LES225Y	LES250
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	859.5	884.5	905.0	955.0	987.0	1047.0	1059.5	1089.5	1127.5	1152.5	1172.0	1232.0	1279.5
k' <sup>2)</sup>	848.5	873.5	895.5	945.5	972.0	1032.0	—	—	—	—	—	—	—
kB	932.5	957.5	1009.5	1059.5	1103.0	1163.0	1188.5	1218.5	1274.5	1299.5	1400.0	1460.0	1504.5
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
LB' <sup>2)</sup>	342.5	367.5	389.5	439.5	466.0	526.0	—	—	—	—	—	—	—
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    ⑥ ISO 4762    ⑦ Without locating shoulder +1 mm  
 ⑧ For inner contour, see page 4/129    ⑨ Use bores only for foot-mounted design

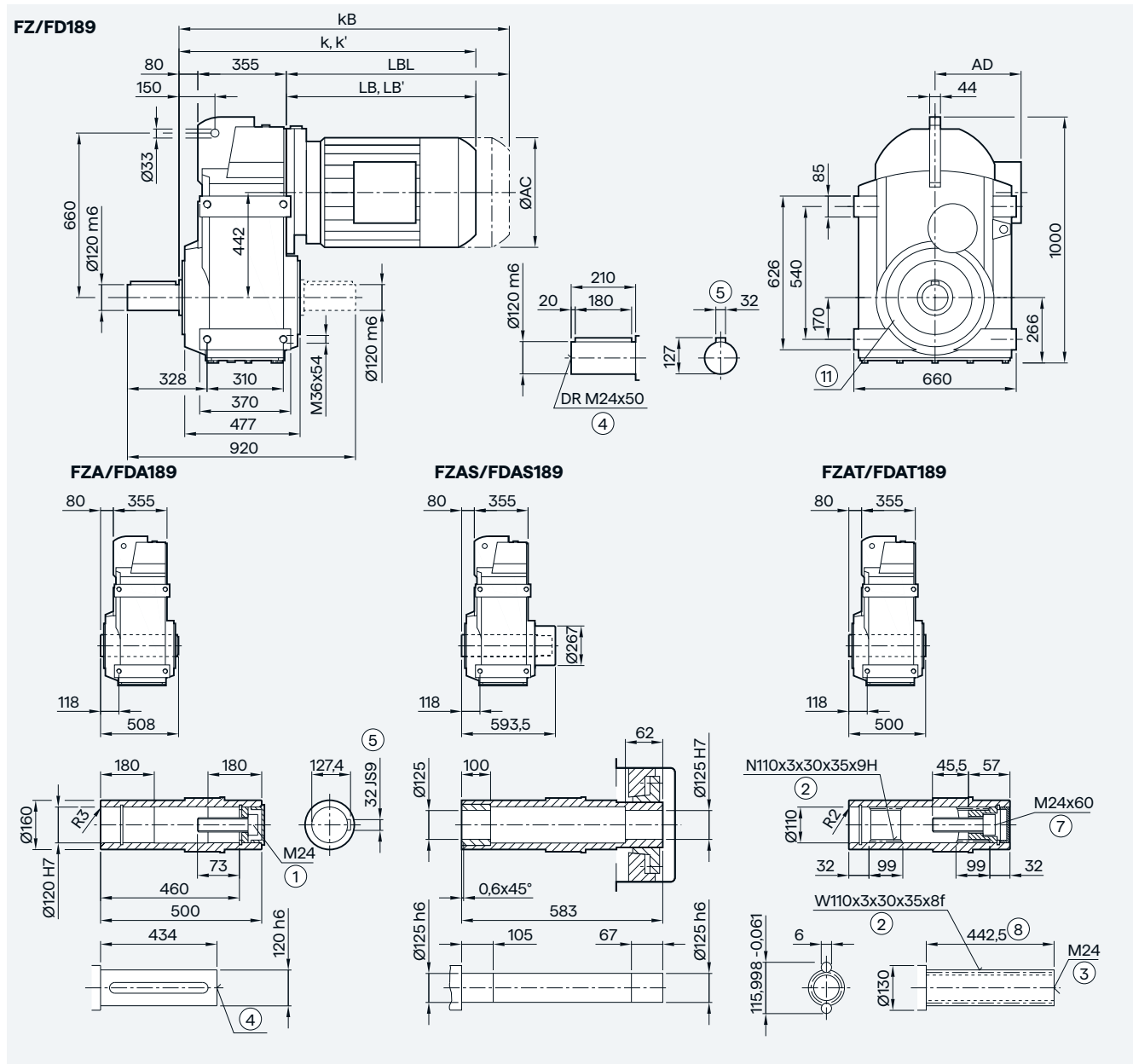
<sup>1)</sup> AD depends on the motor options, for other dimensions, see page 9/46.

<sup>2)</sup> k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

# Parallel shaft geared motors

2- and 3-stage

## Gearbox FZ../FD..189 in a foot-mounted design



4

Motor	LE112	LE112Z	LE132	LE132Z	LE160	LE160Z	LE180	LE180Z	LES200	LES200Z	LES225	LES225Y	LES250
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	788.5	813.5	834.0	884.0	916.0	976.0	988.5	1018.5	1056.5	1081.5	1101.0	1161.0	1208.5
k' <sup>2)</sup>	777.5	802.5	824.5	874.5	901.0	961.0	—	—	—	—	—	—	—
kB	861.5	886.5	938.5	988.5	1032.0	1092.0	1117.5	1147.5	1203.5	1228.5	1329.0	1389.0	1433.5
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
LB' <sup>2)</sup>	342.5	367.5	389.5	439.5	466.0	526.0	—	—	—	—	—	—	—
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    ⑥ ISO 4762    ⑦ Without locating shoulder +1mm

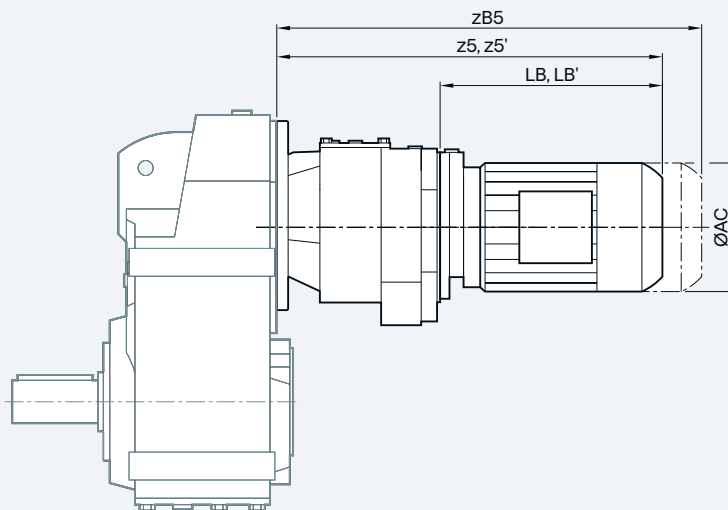
⑧ Use bores only for housing flange design

<sup>1)</sup> AD depends on the motor options, for other dimensions, see page 9/46.

<sup>2)</sup> k' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

## Parallel shaft geared motors

### Parallel shaft tandem geared motors



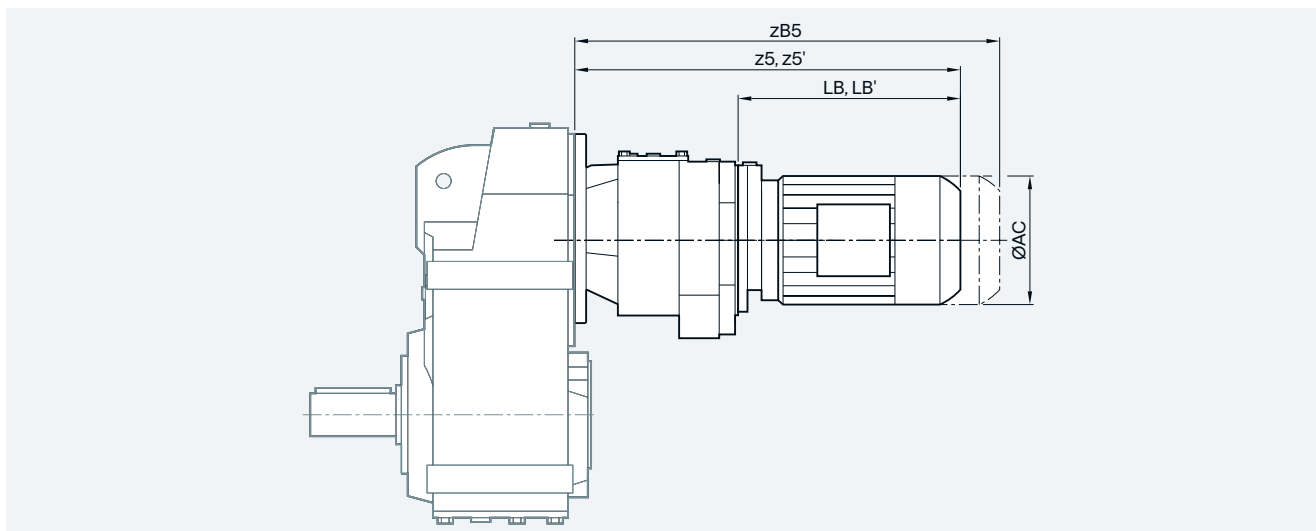
4

Gearbox	Motor	AC	z5	z5' <sup>1)</sup>	zB5	LB	LB' <sup>1)</sup>	Gearbox	Motor	AC	z5	z5' <sup>1)</sup>	zB5	LB	LB' <sup>1)</sup>
FZ../FD..29-Z/D19	LE63	117.8	331.0	—	375.5	160.5	—	FD..109-Z/D39	LE63	117.8	347.5	—	392.0	194.0	—
	LE63Z	117.8	357.0	—	401.5	186.5	—		LE63Z	117.8	373.5	—	418.0	220.0	—
FZ../FD..39-Z/D19	LE63	117.8	331.0	—	375.5	160.5	—	LE/FZ71	138.8	379.5	—	434.5	226.0	—	
	LE63Z	117.8	357.0	—	401.5	186.5	—	LE/FZ71Z	138.8	398.5	—	453.5	245.0	—	
	LES71	138.8	363.0	—	418.0	184.5	—	LE71Y	138.8	438.5	—	493.5	285.0	—	
	LE71Z	138.8	382.0	—	437.0	203.5	—	LE80	156.3	443.5	—	503.5	290.0	—	
FZ../FD..49-Z/D19	LE71Y	138.8	422.0	—	477.0	243.5	—	LE80Z	156.3	478.5	—	538.5	325.0	—	
	LE63	117.8	322.0	—	366.5	160.5	—	LE/FZ90	173.8	505.0	—	575.0	351.5	—	
	LE63Z	117.8	348.0	—	392.5	186.5	—	LE/FZ90Z	173.8	545.0	—	615.0	391.5	—	
	LE/FZ71	138.8	354.0	—	409.0	184.5	—	LE100	198.0	561.5	555.0	640.0	408.0	401.5	
	LE/FZ71Z	138.8	373.0	—	428.0	203.5	—	LE100Z	198.0	596.5	590.0	675.0	443.0	436.5	
	LE71Y	138.8	413.0	—	468.0	243.5	—	FD..129-Z/D49	LE63	117.8	376.5	—	421.0	184.5	—
LE80	156.3	410.0	—	470.0	240.0	—	LE63Z		117.8	402.5	—	447.0	210.5	—	
FZ../FD..69-Z/D19	LE80Z	156.3	445.0	—	505.0	275.0	—	LE/FZ71	138.8	408.5	—	463.5	216.5	—	
	LE63	117.8	322.0	—	366.5	160.5	—	LE/FZ71Z	138.8	427.5	—	482.5	235.5	—	
	LE63Z	117.8	348.0	—	392.5	186.5	—	LE71Y	138.8	467.5	—	522.5	275.5	—	
	LE/FZ71	138.8	354.0	—	409.0	184.5	—	LE80	156.3	472.5	—	532.5	280.5	—	
	LE/FZ71Z	138.8	373.0	—	428.0	203.5	—	LE80Z	156.3	507.5	—	567.5	315.5	—	
	LE71Y	138.8	413.0	—	468.0	243.5	—	LE/FZ90	173.8	534.0	—	604.0	342.0	—	
FZ../FD..79-Z/D39	LE80	156.3	410.0	—	470.0	240.0	—	LE/FZ90Z	173.8	574.0	—	644.0	382.0	—	
	LE80Z	156.3	445.0	—	505.0	275.0	—	LE100	198.0	590.5	584.0	669.0	398.5	392.0	
	LE63	117.8	373.5	—	418.0	194.0	—	LE100Z	198.0	625.5	619.0	704.0	433.5	427.0	
	LE63Z	117.8	399.5	—	444.0	220.0	—	LE112	222.0	600.5	589.5	673.5	408.5	397.5	
	LE/FZ71	138.8	405.5	—	460.5	226.0	—	LE112Z	222.0	635.0	624.0	708.0	443.0	432.0	
	LE/FZ71Z	138.8	424.5	—	479.5	245.0	—								
	LE71Y	138.8	464.5	—	519.5	285.0	—								
	LE80	156.3	469.5	—	529.5	290.0	—								
FZ../FD..89-Z/D39	LE80Z	156.3	504.5	—	564.5	325.0	—								
	LE63	117.8	356.5	—	401.0	194.0	—								
	LE63Z	117.8	382.5	—	427.0	220.0	—								
	LE/FZ71	138.8	388.5	—	443.5	226.0	—								
	LE/FZ71Z	138.8	407.5	—	462.5	245.0	—								
	LE71Y	138.8	447.5	—	502.5	285.0	—								
	LE80	156.3	452.5	—	512.5	290.0	—								
	LE80Z	156.3	487.5	—	547.5	325.0	—								
LE/FZ90	173.8	514.0	—	584.0	351.5	—									
LE/FZ90Z	173.8	554.0	—	624.0	391.5	—									

<sup>1)</sup> z5' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

## Parallel shaft geared motors

## Parallel shaft tandem geared motors



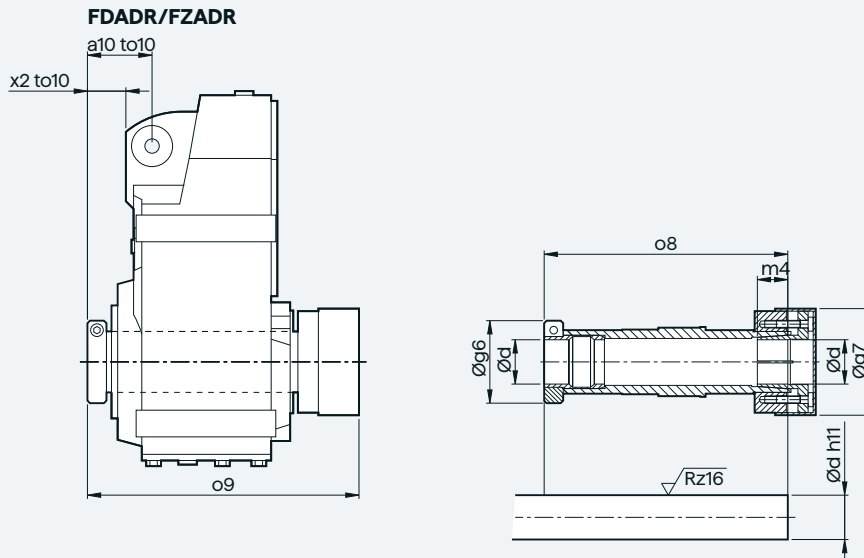
Gearbox	Motor	AC	z5	z5' <sup>1)</sup>	zB5	LB	LB' <sup>1)</sup>
FD..149-Z/D49	LE63	117.8	366.0	—	410.5	184.5	—
	LE63Z	117.8	392.0	—	436.5	210.5	—
	LE/FZ71	138.8	398.0	—	453.0	216.5	—
	LE/FZ71Z	138.8	417.0	—	472.0	235.5	—
	LE71Y	138.8	457.0	—	512.0	275.5	—
	LE80	156.3	462.0	—	522.0	280.5	—
	LE80Z	156.3	497.0	—	557.0	315.5	—
	LE/FZ90	173.8	523.5	—	593.5	342.0	—
	LE/FZ90Z	173.8	563.5	—	633.5	382.0	—
	LE100	198.0	580.0	573.5	658.5	398.5	392.0
	LE100Z	198.0	615.0	608.5	693.5	433.5	427.0
	LE112	222.0	590.0	579.0	663.0	408.5	397.5
	LE112Z	222.0	624.5	613.5	697.5	443.0	432.0
	LE132	264.0	643.0	633.5	747.5	461.5	452.0
LE132Z	264.0	693.0	683.5	797.5	511.5	502.0	
FD..169-Z/D69	LE63	117.8	391.5	—	436.0	184.5	—
	LE63Z	117.8	417.5	—	462.0	210.5	—
	LE/FZ71	138.8	423.5	—	478.5	216.5	—
	LE/FZ71Z	138.8	442.5	—	497.5	235.5	—
	LE71Y	138.8	482.5	—	537.5	275.5	—
	LE80	156.3	487.5	—	547.5	280.5	—
	LE80Z	156.3	522.5	—	582.5	315.5	—
	LE/FZ90	173.8	549.0	—	619.0	342.0	—
	LE/FZ90Z	173.8	589.0	—	659.0	382.0	—
	LE100	198.0	605.5	599.0	684.0	398.5	392.0
	LE100Z	198.0	640.5	634.0	719.0	433.5	427.0
	LE112	222.0	615.5	604.5	688.5	408.5	397.5
	LE112Z	222.0	650.0	639.0	723.0	443.0	432.0
	LE132	264.0	668.5	659.0	773.0	461.5	452.0
LE132Z	264.0	718.5	709.0	823.0	511.5	502.0	

Gearbox	Motor	AC	z5	z5' <sup>1)</sup>	zB5	LB	LB' <sup>1)</sup>
FD..189-Z/D69	LE63	117.8	391.5	—	436.0	184.5	—
	LE63Z	117.8	417.5	—	462.0	210.5	—
	LE/FZ71	138.8	423.5	—	478.5	216.5	—
	LE/FZ71Z	138.8	442.5	—	497.5	235.5	—
	LE71Y	138.8	482.5	—	537.5	275.5	—
	LE80	156.3	487.5	—	547.5	280.5	—
	LE80Z	156.3	522.5	—	582.5	315.5	—
	LE/FZ90	173.8	549.0	—	619.0	342.0	—
	LE/FZ90Z	173.8	589.0	—	659.0	382.0	—
	LE100	198.0	605.5	599.0	684.0	398.5	392.0
	LE100Z	198.0	640.5	634.0	719.0	433.5	427.0
	LE112	222.0	615.5	604.5	688.5	408.5	397.5
	LE112Z	222.0	650.0	639.0	723.0	443.0	432.0
	LE132	264.0	668.5	659.0	773.0	461.5	452.0
LE132Z	264.0	718.5	709.0	823.0	511.5	502.0	

<sup>1)</sup> z5' and LB' dimensions apply to IE3 motors without mounted components in sizes 100 to 160. For detailed information, see page 9/2.

# Parallel shaft geared motors

## ShaftMount assembly system



Note mounting tolerance to10 when positioning the torque arm.

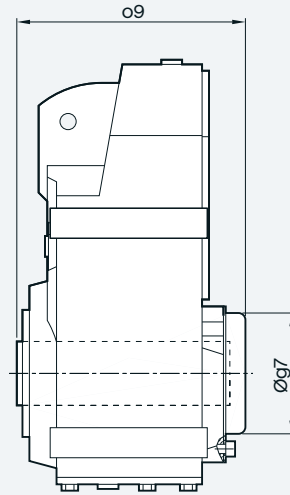
d	g6	g7	m4	o8	o9	a10	to10	x2
<b>FZADR/FDADR29</b>								
25	58.5	56	18.5	140.5	161	40.0	+2.1	23.5
20							+0.6	
1"								
0.75"								
<b>FZADR/FDADR39</b>								
30	62.0	76	22	160.5	181	46.5	+2.2	29.5
25							+0.7	
1.25"								
1.1875"								
1"								
<b>FZADR/FDADR49</b>								
35	65.0	84	24	192.0	214	47.0	+2.6	24.5
30							+0.8	
1.375"								
1.4375"								
1.25"								
1.1875"								
<b>FZADR/FDADR69</b>								
40	79.5	94	30	217.5	240	59.5	+2.5	37.0
35							+0.7	
1.5"								
1.625"								
1.4375"								
1.375"								
<b>FZADR/FDADR79</b>								
40	79.5	94	30	232.0	259	60.0	+3.2	34.0
35							+1.4	
1.5"								
1.625"								
1.4375"								
1.375"								
<b>FZADR/FDADR89</b>								
50	89.0	114	32	264.0	295	69.0	+3.4	32.0
40							+1.5	
2"								
1.9375"								
1.75"								
1.625"								

## Parallel shaft geared motors

## Protective covers

## Protective cover for hollow shaft

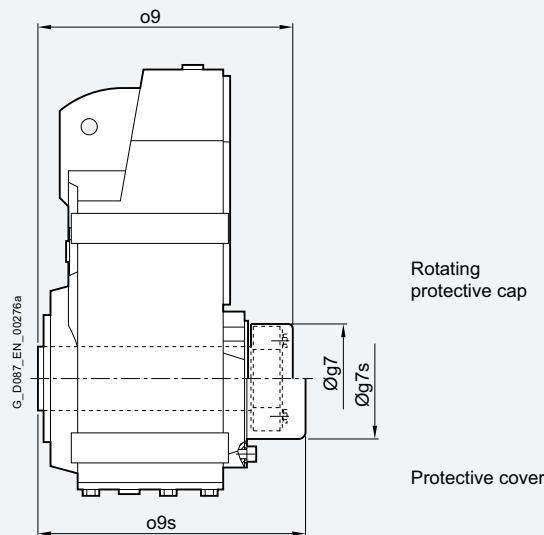
F.A, F.AF, F.AZ, F.AD



Gearbox type	F.A..29	F.A..39	F.A..49	F.A..69	F.A..79	F.A..89	F.A..109	F.A..129	F.A..149	F.A..169	F.A..189
<b>Protective cover</b>											
g7	67.0	82.5	80.0	99.0	99.0	137.0	187.0	187.0	218.0	257.5	309.5
o9	120.5	134.0	177.0	179.0	192.5	232.5	281.5	348.0	425.0	520.0	623.5

## Protective cover for hollow shaft with shrink disk

F.A.S, F.AFS, F.AZS, F.ADS



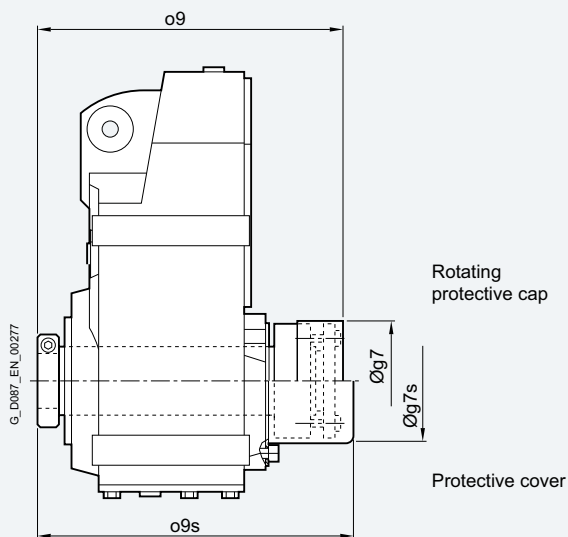
Gearbox type	F.A..29	F.A..39	F.A..49	F.A..69	F.A..79	F.A..89	F.A..109	F.A..129	F.A..149	F.A..169	F.A..189
<b>Rotating protective cap with shrink disk version</b>											
Max. motor frame size that can be mounted	80	90	100	100	132	160	200	225	250	250	250
g7	57.0	76.0	84.0	84.0	94.0	119.0	145.0	159.0	201.0	234.0	267.0
o9	132.5	149.5	182.0	198.0	215.5	247.5	282.5	348.5	408.5	496.0	593.5
<b>Protective cover</b>											
Max. motor frame size that can be mounted	80	80	100	100	112	132	200	225	250	250	250
g7s	58.0	82.5	86.0	99.0	99.0	137.0	187.0	187.0	218.0	257.5	309.5
o9s	135.5	170.0	198.0	210.0	223.5	284.5	308.5	375.0	425.0	520.0	623.5

# Parallel shaft geared motors

## Protective covers

### Protective cover for hollow shaft with ShaftMount assembly system

F.ADR



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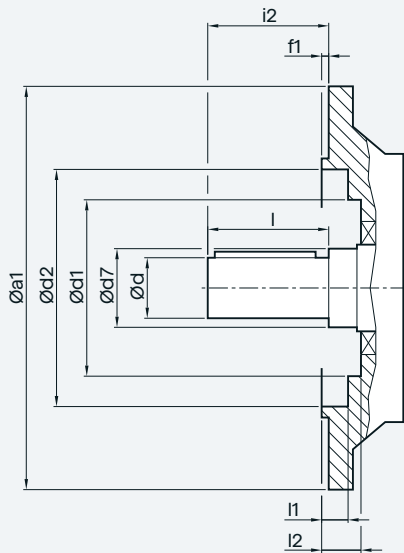
Gearbox type	F.ADR29	F.ADR39	F.ADR49	F.ADR69	F.ADR79	F.ADR89
<b>Rotating protective cap</b>						
Max. motor frame size that can be mounted	80	90	100	100	132	160
g7	56.0	76.0	84.0	94.0	94.0	114.0
o9	161.0	181.0	214.0	240.0	259.0	295.0
<b>Protective cover</b>						
Max. motor frame size that can be mounted	80	80	100	100	112	132
g7s	58.0	82.5	86.0	99.0	99.0	137.0
o9s	164.0	184.0	219.0	249.5	263.5	303.5

# Parallel shaft geared motors

## Inner contour of the flange-mounted design

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

FZF/FDF

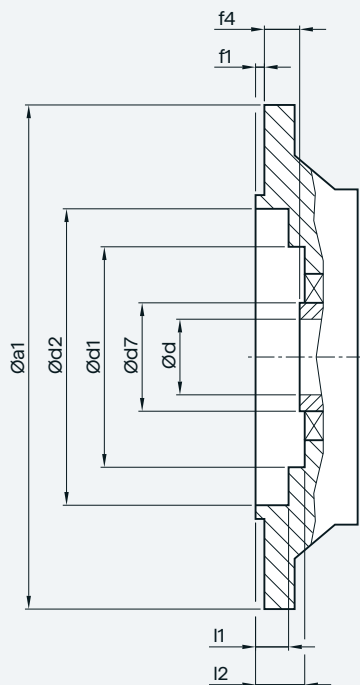


Gearbox type	a1	d	d7	d1	d2	f1	i2	l	l1	l2	
FZF/FDF29	120	25	40	-	70	3.0	40	40	24.0	-	
	160	25	40	70	101	3.5	40	40	8.5	24.5	
FZF/FDF39	160	25	30	-	100	3.5	50	50	5.0	-	
		35	45	80	102	3.5	46	70	2.0	29.5	
FZF/FDF49	200	30	35	-	118	3.5	60	60	5.5	-	
		40	50	90	120	3.5	55	80	4.0	30.5	
FZF/FDF69	250	35	45	-	165	4.0	70	70	6.5	-	
FZF/FDF79	250	40	55	-	165	4.0	80	80	6.5	-	
		50	55	104	165	4.0	77	100	2.0	29.5	
FZF/FDF89	300	50	55	-	165	4.0	100	100	8.0	-	
FZF/FDF109	350	60	65	-	235	5.0	120	120	9.0	-	
		80	85	184	210	5.0	134	170	13.0	45.0	
FZF/FDF129	450	70	75	-	336	5.0	140	140	9.0	-	
		90	95	184	336	5.0	128.5	170	16.5	48.5	
FZF/FDF149	450	90	100	-	336	5.0	170	170	10.0	-	
		100	120	214	330	5.0	169	210	10.5	50.0	
FZF/FDF169	550	110	120	-	427	5.0	210	210	10.0	-	
		120	140	254	426	5.0	162	210	14.5	56.0	
FZF/FDF189	660	120	160	-	517	6.0	210	210	11.0	-	
		140	160	306	518	6.0	190	250	6.0	62.0	
<b>With VLplus reinforced bearing system (G30)</b>											
FZF/FDF89	300	60	70	143	218	4.0	120	120	1.5	8	
FZF/FDF109	350	70	85	190	234	5.0	140	140	2.0	4	
FZF/FDF129	450	90	95	-	336	5.0	170	170	16.5	-	
FZF/FDF149	450	100	120	225	336	5.0	210	210	10.5	11	
FZF/FDF169	550	120	140	-	426	5.0	210	210	19.5	-	

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

FDAF /FZAF



Gearbox type	a1	d	d7	d1	d2	f1	f4	l1	l2	
FDAF /FZAF 29	120	25	40	-	70	3.0	20.0	24.0	-	
	160	25	40	70	101	3.5	20.0	8.5	24.5	
FDAF /FZAF 39	160	25	45	80	102	3.5	24.0	2.0	29.5	
		30								
FDAF /FZAF 49	200	30	50	90	120	3.5	25.0	4.0	30.5	
		35								
FDAF /FZAF 69	250	40	55	104	165	4.0	23.5	2.0	29.5	
FDAF /FZAF 79	250	40	55	104	165	4.0	23.0	2.0	29.5	
FDAF /FZAF 89	300	50	70	135	215	4.0	37.0	2.0	44.5	
FDAF /FZAF 109	350	60	85	184	210	5.0	36.0	13.0	45.0	
		70	90							
FDAF /FZAF 129	450	70	95	184	336	5.0	41.5	16.5	48.5	
FDAF /FZAF 149	450	80	120	214	330	5.0	41.0	10.5	50.0	
		90								
FDAF /FZAF 169	550	100	140	254	426	5.0	56.0	14.5	56.0	
		110								
FDAF /FZAF 189	660	120	160	306	518	6.0	66.0	6.0	62.0	
<b>With VLplus reinforced bearing system (G30)</b>										
FDAF /FZAF 89	300	50	70	143	218	4.0	0	1.5	8	
FDAF /FZAF 109	350	60	85	190	234	5.0	0	2.0	4	
FDAF /FZAF 129	450	70	95	-	336	5.0	0	16.5	-	
FDAF /FZAF 149	450	90	120	225	330	5.0	0	10.5	11	
FDAF /FZAF 169	550	100	140	-	426	5.0	0	14.5	-	