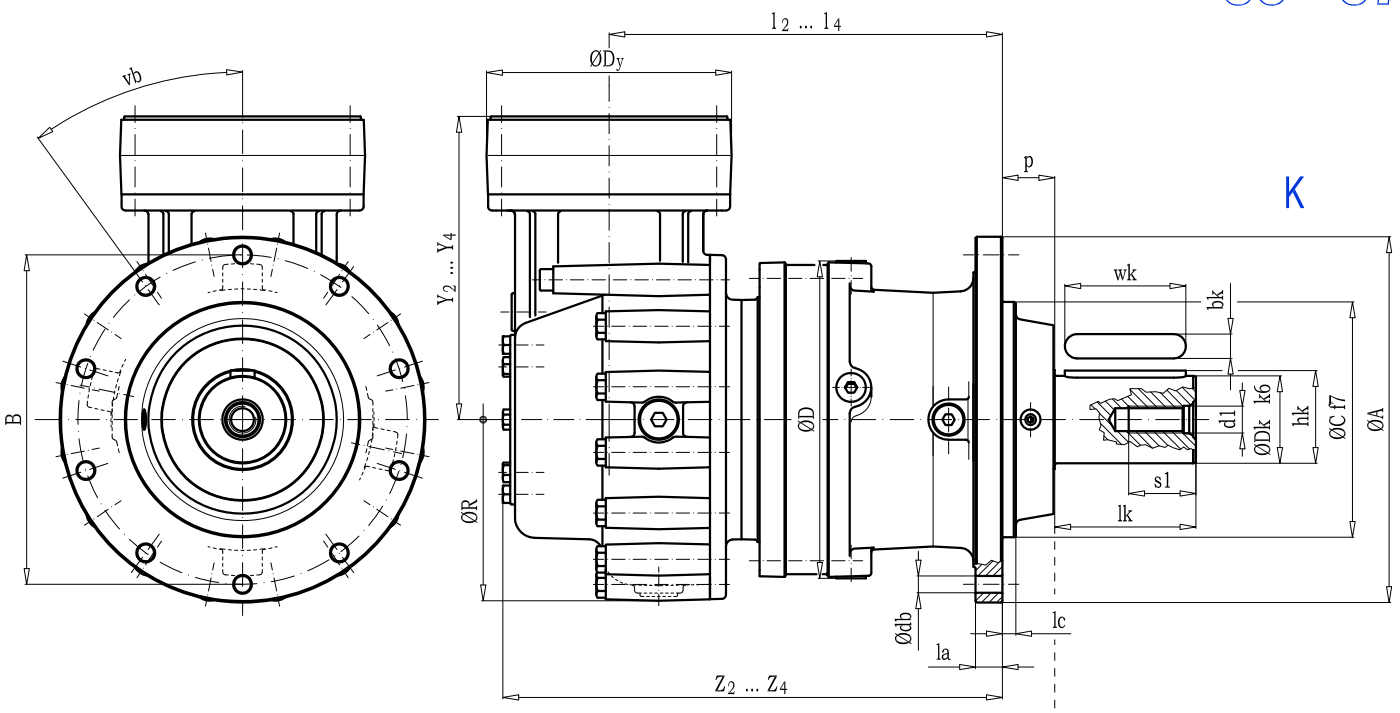
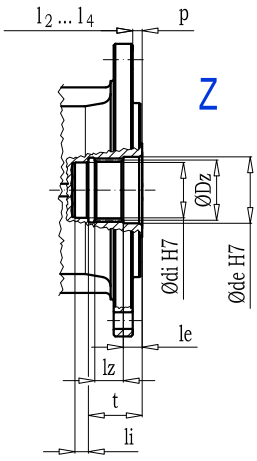
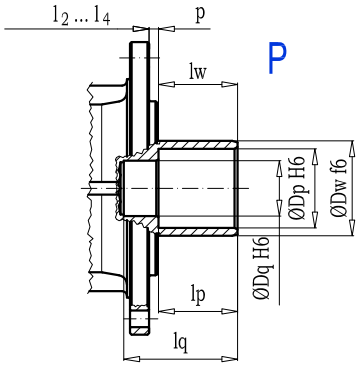
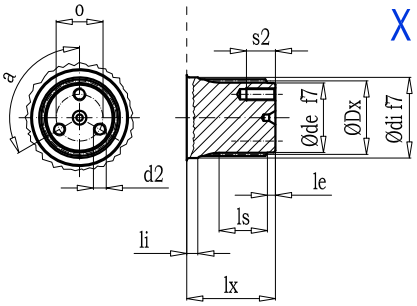








P - shaft version for shrink disc:
For minimum length of torque reaction arm
refer to the relevant data table, value "L min"

Data and dimensions are not binding and may be modified without prior notice

Dimensions METRIC, standard, solid shafts																			Keyed								DIN Splined									
Model	A	la	B	db	vb	C	lc	D	p	l2	l3	l4	Y2	Y3	Y4	Dy	Z2	Z3	Z4	R	Dk	lk	bk	hk	wk	d1	s1	code	Dx	lx	ls	de	le	di	li	d2	s2	a	o	code
36	220	18	195	12.5	10x36°	150	14	242	15	269	269	269	226	276	326	185	348	348	348	274	60	105	18	64	90	M20	50	K 11	58x53	68	38	50	8	60	7	M10	20	3x120°	32	X 12
42	220	18	195	12.5	10x36°	150	14	242	15	269	269	269	226	276	326	185	348	348	348	274	60	105	18	64	90	M20	50	K 11	58x53	68	38	50	8	60	7	M10	20	3x120°	32	X 12
50	220	18	195	12.5	10x36°	150	14	242	15	269	269	269	226	276	326	185	348	348	348	274	65	105	18	69	90	M20	50	K 13	58x53	68	38	50	8	60	7	M10	20	3x120°	32	X 12
60	220	18	195	12.5	10x36°	150	14	242	15	284	284	284	226	276	326	185	363	363	363	274	65	105	18	69	90	M20	50	K 13	58x53	68	38	50	8	60	7	M10	20	3x120°	32	X 12
67	220	18	195	12.5	10x36°	150	14	242	15	284	284	284	226	276	326	185	363	363	363	274	65	105	18	69	90	M20	50	K 13	58x53	68	38	50	8	60	7	M10	20	3x120°	32	X 12

Dimensions METRIC, reinforced, solid shafts																			Keyed								DIN Splined									
Model	A	la	B	db	vb	C	lc	D	p	l2	l3	l4	Y2	Y3	Y4	Dy	Z2	Z3	Z4	R	Dk	lk	bk	hk	wk	d1	s1	code	Dx	lx	ls	de	le	di	li	d2	s2	a	o	code
36	272	20	245	12.5	10x36°	175	10	242	39	278	278	278	226	276	326	185	357	357	357	270	65	105	18	69	90	M20	50	K 15	58x53	80	50	50	8	60	7	M10	20	3x120°	32	X 16
42	272	20	245	12.5	10x36°	175	10	242	39	278	278	278	226	276	326	185	357	357	357	270	65	105	18	69	90	M20	50	K 15	58x53	80	50	50	8	60	7	M10	20	3x120°	32	X 16
50	272	20	245	12.5	10x36°	175	10	242	39	278	278	278	226	276	326	185	357	357	357	270	65	105	18	69	90	M20	50	K 15	58x53	80	50	50	8	60	7	M10	20	3x120°	32	X 16
60	272	20	245	12.5	10x36°	175	10	242	39	293	293	293	226	276	326	185	372	372	372	270	65	105	18	69	90	M20	50	K 15	58x53	80	50	50	8	60	7	M10	20	3x120°	32	X 16
67	272	20	245	12.5	10x36°	175	10	242	39	293	293	293	226	276	326	185	372	372	372	270	65	105	18	69	90	M20	50	K 15	58x53	80	50	50	8	60	7	M10	20	3x120°	32	X 16

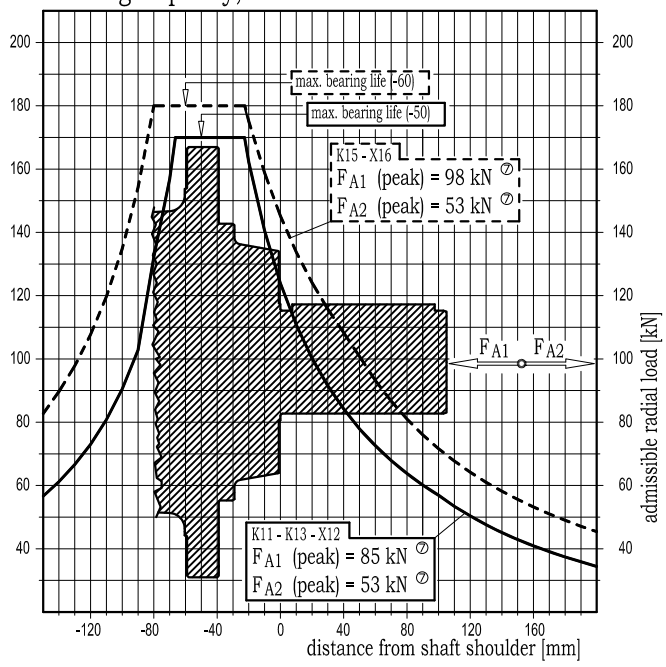
Dimensions METRIC, hollow shafts																			Hollow for Shrink Disc								Hollow Splined							
Model	A	la	B	db	vb	C	lc	D	p	l2	l3	l4	Y2	Y3	Y4	Dy	Z2	Z3	Z4	R	Dp	lp	Dq	lq	Dw	lw	code	L min. of torque arm	Dz	lz	de	le	di	li	t	code
36	220	18	195	12.5	10x36°	150	14	242	15	269	269	269	226	276	326	185	348	348	348	270	75	70	50	100	90	50	P 24	250	58x53	24	60	15	50	10	44	Z 21
42	220	18	195	12.5	10x36°	150	14	242	15	269	269	269	226	276	326	185	348	348	348	270	75	70	50	100	90	50	P 24	250	58x53	24	60	15	50	10	44	Z 21
50	220	18	195	12.5	10x36°	150	14	242	15	269	269	269	226	276	326	185	348	348	348	270	75	70	50	100	90	50	P 24	300	58x53	24	60	15	50	10	44	Z 21
60	220	18	195	12.5	10x36°	150	14	242	15	284	284	284	226	276	326	185	363	363	363	270	75	70	50	100	90	50	P 24	300	58x53	24	60	15	50	10	44	Z 21
67	220	18	195	12.5	10x36°	150	14	242	15	284	284	284	226	276	326	185	363	363	363	270	75	70	50	100	90	50	P 24	300	58x53	24	60	15	50	10	44	Z 21

DIMENSIONS IN MM UNLESS OTHERWISE SPECIFIED

Model	36		42		50		60		67	
Torque Rating①	3600 Nm		4200 Nm		5000 Nm		6000 Nm		6700 Nm	
R2	NOM. RATIO ② (ACT. RATING) 10 (B) 21 (C) 12 (A) 25 (B) 16 (B) 30 (B) 18 (A) 34 (C)		NOM. RATIO ② (ACT. RATING) 10 (B) 25 (B) 13 (A) 16 (B) 21 (A)		NOM. RATIO ② (ACT. RATING) 12 (A) 14 (A) 18 (A) 21 (A)		NOM. RATIO ② (ACT. RATING) 12 (A) 28 (C) 16 (B) 34 (D) 18 (A) 25 (B)		NOM. RATIO ② (ACT. RATING) 13 (A) 16 (B) 21 (A) 25 (B)	
n_1 nom./max.	3000 rpm	4000 rpm	3000 rpm	4000 rpm	3000 rpm	4000 rpm	3000 rpm	4000 rpm	3000 rpm	4000 rpm
P th.③/max.	15 kW	25 kW	15 kW	26 kW	15 kW	27 kW	16 kW	30 kW	16 kW	33 kW
R3	NOM. RATIO ② (ACT. RATING) 34 (B) 90 (A) 38 (A) 100 (B) 45 (A) 110 (A) 53 (B) 125 (A) 60 (A) 150 (B) 67 (A) 170 (B) 71 (A) 210 (B) 80 (A) 240 (C)		NOM. RATIO ② (ACT. RATING) 34 (B) 80 (A) 38 (B) 85 (A) 45 (A) 95 (A) 50 (A) 105 (A) 53 (B) 130 (A) 60 (B) 150 (A) 67 (A) 170 (B) 71 (A)		NOM. RATIO ② (ACT. RATING) 38 (A) 95 (A) 45 (A) 105 (A) 50 (A) 125 (A) 60 (A) 150 (A) 67 (A) 71 (A) 80 (A) 85 (A)		NOM. RATIO ② (ACT. RATING) 38 (A) 110 (A) 42 (A) 125 (A) 53 (B) 150 (B) 60 (A) 170 (B) 67 (A) 200 (C) 71 (A) 240 (D) 80 (A) 90 (A)		NOM. RATIO ② (ACT. RATING) 45 (A) 105 (A) 50 (A) 130 (A) 53 (B) 150 (A) 67 (A) 170 (B) 71 (A) 80 (A) 85 (A) 95 (A)	
n_1 nom./max.	3000 rpm	4000 rpm	3000 rpm	4000 rpm	3000 rpm	4000 rpm	3000 rpm	4000 rpm	3000 rpm	4000 rpm
P th.③/max.	11 kW	15 kW	11 kW	16 kW	11 kW	17 kW	12 kW	25 kW	12 kW	28 kW
R4	NOM. RATIO ② (ACT. RATING) 140 (A) 630 (A) 160 (A) 670 (A) 180 (B) 750 (A) 200 (A) 850 (A) 220 (A) 900 (B) 260 (A) 1050 (B) 300 (A) 1250 (B) 340 (A) 1400 (B) 400 (A) 1600 (C) 450 (A) 500 (A) 560 (A)		NOM. RATIO ② (ACT. RATING) 170 (A) 630 (A) 190 (A) 750 (A) 220 (A) 800 (A) 250 (A) 900 (A) 260 (A) 1000 (A) 300 (A) 1200 (B) 340 (A) 360 (A) 400 (A) 480 (A) 530 (A) 560 (A)		NOM. RATIO ② (ACT. RATING) 160 (A) 530 (A) 190 (A) 560 (A) 220 (A) 630 (A) 250 (A) 670 (A) 300 (A) 750 (A) 340 (A) 800 (A) 360 (A) 850 (A) 400 (A) 900 (A) 420 (A) 1000 (A) 450 (A) 480 (A) 500 (A)		NOM. RATIO ② (ACT. RATING) 140 (A) 670 (A) 160 (A) 750 (A) 200 (A) 850 (A) 220 (A) 950 (B) 250 (A) 1050 (B) 300 (A) 1200 (B) 340 (A) 1400 (C) 400 (A) 1600 (D) 450 (A) 500 (A) 560 (A) 630 (A)		NOM. RATIO ② (ACT. RATING) 170 (A) 750 (A) 190 (A) 800 (A) 220 (A) 900 (A) 260 (A) 950 (B) 300 (A) 1050 (B) 340 (A) 1200 (B) 400 (A) 420 (A) 480 (A) 530 (A) 560 (A) 630 (A)	
n_1 nom./max.	3000 rpm	4000 rpm	3000 rpm	4000 rpm	3000 rpm	4000 rpm	3000 rpm	4000 rpm	3000 rpm	4000 rpm
P th.③/max.	5 kW	5 kW	5.5 kW	5.5 kW	6 kW	6 kW	7.5 kW	8 kW	7.5 kW	9 kW
Actual Torque Rating [Nm]④	(A) 4100 (B) 3600 (C) 3150		(A) 4900 (B) 4300		(A) 5700		(A) 7000 (B) 6200 (C) 5500 (D) 5100		(A) 8250 (B) 7200	
Peak Torque⑤	4500 Nm		5500 Nm		6700 Nm		8000 Nm		9000 Nm	

Data and dimensions are not binding and may be modified without prior notice

Bearing Capacity, solid shafts⑥⑧



① Harmonized nominal value referring to Preferred Numbers R'40.
Actual transmissible torque may vary depending on ratio, speed, application.

② Harmonized nominal value referring to Preferred Numbers R'40.
For actual ratios see Annex C.

③ Thermal power limit. For actual figures based on speed, temperature and duty see Section B4, Specifications, Paragraph 8.

④ Mean value at rated conditions. For actual figures based on speed, service life and application/duty see Section B4, Specifications, Paragraph 6.

⑤ Restrictions may apply for hollow shaft for shrink disc, see Section G, Output Accessories.
Customer to verify the mating shaft is capable of loads actually transmitted.

⑥ Mean values at rated conditions. For actual admissible loads based on speed, service life and application/duty see Section B4, Specifications, Paragraph 9.

⑦ Max. peak values, which must never be exceeded. Combined thrust and radial shaft loads might reduce bearing life. Please contact Plan-Star Engineering for accurate life calculation of your specific application.

⑧ Combination of high torque and heavy radial shaft load might require verification of the output shaft. If the following condition is not fulfilled, contact Plan-Star Engineering for accurate verification of your specific application:

$$\frac{\text{Radial Load (applied)}}{\text{Radial Load (admissible)}} \times \frac{\text{Torque (applied)}}{\text{Torque (nominal)}} < 0.5$$