

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	l ₁	l ₂	l ₃	l ₄	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	140	194	244	294	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	140	194	244	294	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	140	194	244	294	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	155	222	272	322	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	155	222	272	322	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	D	p	l ₁	l ₂	l ₃	l ₄	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	148.5	198.5	248.5	298.5	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	148.5	198.5	248.5	298.5	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	148.5	198.5	248.5	298.5	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	163.5	230.5	280.5	330.5	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	163.5	230.5	280.5	330.5	65	105	18	69	90	M20	50	K 15	58x53	80	50	50	8	60	7	M10	20	3x120°	32	X 16

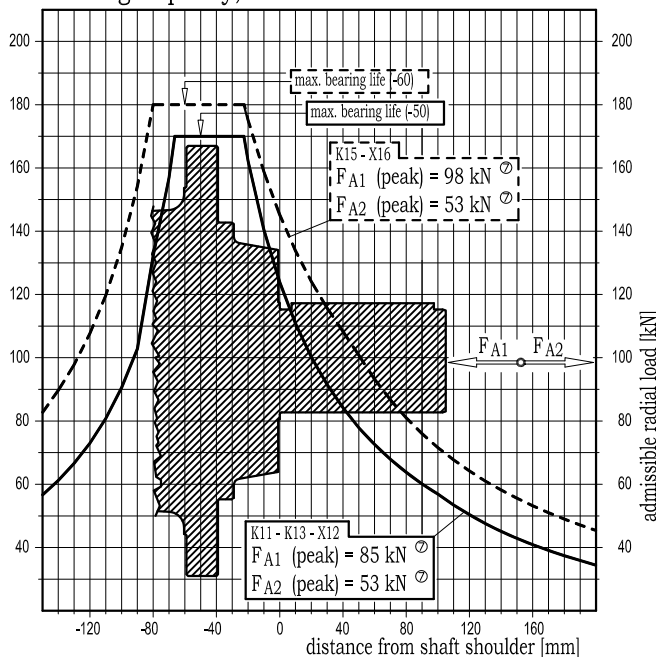
Dimensions METRIC, hollow shafts														Hollow for Shrink Disc						Hollow Splined									
Model	A	la	B	db	vb	C	lc	D	p	l ₁	l ₂	l ₃	l ₄	Dp	lp	Dq	lq	Dw	lw	code	L min. of torque arm	Dz	lz	de	le	di	li	t	code
36	220	18	195	12.5	10x36°	150	14	242	15	140	194	244	294	75	70	50	100	90	50	P 24	250	58x53	24	60	15	50	10	44	Z 21
42	220	18	195	12.5	10x36°	150	14	242	15	140	194	244	294	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	140	194	244	294	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	155	222	272	322	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	155	222	272	322	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 Rating ^①	3600 Nm	4200 Nm	5000 Nm	6000 Nm	6700 Nm
L1	RATIO (ACT. RATING) 3.3 (B) 5.0 (B) 6.9 (C) 3.8 (A) 6.1 (B)	RATIO (ACT. RATING) 3.3 (B) 5.1 (B) 4.3 (A)	RATIO (ACT. RATING) 3.7 (A) 4.4 (A)	RATIO (ACT. RATING) 3.7 (A) 5.8 (C) 5.0 (B) 6.9 (D)	RATIO (ACT. RATING) 4.3 (A) 5.1 (B)
n ₁ nom./max.	2800/3800 rpm	2800/3800 rpm	2800/3800 rpm	2800/3800 rpm	2800/3800 rpm
P th ^② /max.	13/60 kW	13/63 kW	13/67 kW	15/90 kW	15/100 kW
L2	NOM. RATIO ^③ (ACT. RATING) 11 (B) 22 (A) 42 (B) 12 (A) 26 (A) 48 (C) 14 (A) 30 (B) 16 (B) 35 (B) 19 (A) 38 (B)	NOM. RATIO ^③ (ACT. RATING) 11 (B) 22 (A) 12 (B) 26 (A) 14 (A) 30 (A) 16 (A) 35 (B) 19 (B)	NOM. RATIO ^③ (ACT. RATING) 12 (A) 26 (A) 14 (A) 16 (A) 19 (A) 22 (A)	NOM. RATIO ^③ (ACT. RATING) 14 (A) 34 (C) 19 (A) 36 (B) 22 (A) 40 (C) 26 (A) 48 (D) 30 (B)	NOM. RATIO ^③ (ACT. RATING) 16 (A) 36 (B) 19 (B) 22 (A) 25 (A) 30 (A)
n ₁ nom./max.	3000/4000 rpm	3000/4000 rpm	3000/4000 rpm	3000/4000 rpm	3000/4000 rpm
P th ^② /max.	7.5/25 kW	7.5/26 kW	7.5/27 kW	8/30 kW	8/33 kW
L3	NOM. RATIO ^③ (ACT. RATING) 42 (A) 120 (A) 300 (B) 48 (A) 130 (A) 340 (C) 53 (A) 160 (A) 63 (A) 180 (A) 71 (A) 210 (B) 85 (A) 240 (B) 100 (A) 260 (B)	NOM. RATIO ^③ (ACT. RATING) 48 (A) 130 (A) 53 (A) 150 (A) 60 (A) 160 (A) 71 (A) 180 (A) 85 (A) 210 (A) 100 (A) 240 (B) 110 (A)	NOM. RATIO ^③ (ACT. RATING) 42 (A) 110 (A) 48 (A) 120 (A) 53 (A) 130 (A) 60 (A) 150 (A) 71 (A) 160 (A) 85 (A) 180 (A) 100 (A)	NOM. RATIO ^③ (ACT. RATING) 48 (A) 130 (A) 300 (C) 53 (A) 150 (A) 340 (D) 63 (A) 160 (A) 71 (A) 180 (A) 80 (A) 210 (B) 95 (A) 240 (B) 110 (A) 280 (C)	NOM. RATIO ^③ (ACT. RATING) 53 (A) 150 (A) 60 (A) 170 (A) 71 (B) 180 (A) 80 (A) 210 (A) 95 (A) 240 (B) 110 (A) 130 (A)
n ₁ nom./max.	3000/4000 rpm	3000/4000 rpm	3000/4000 rpm	3000/4000 rpm	3000/4000 rpm
P th ^② /max.	5.5/15 kW	5.5/16 kW	5.5/17 kW	6/25 kW	6/28 kW
L4	NOM. RATIO ^③ (ACT. RATING) 200 (A) 500 (A) 1250 (A) 240 (A) 600 (A) 1500 (B) 260 (A) 670 (A) 1700 (B) 280 (A) 710 (A) 1800 (B) 320 (A) 800 (A) 2000 (B) 360 (A) 900 (A) 2300 (C) 400 (A) 1000 (A) 450 (A) 1100 (A)	NOM. RATIO ^③ (ACT. RATING) 220 (A) 750 (A) 280 (A) 950 (A) 320 (A) 1050 (A) 380 (A) 1100 (A) 420 (A) 1250 (A) 500 (A) 1400 (A) 560 (A) 1500 (B) 670 (A) 1700 (B)	NOM. RATIO ^③ (ACT. RATING) 200 (A) 600 (A) 240 (A) 670 (A) 280 (A) 750 (A) 360 (A) 800 (A) 420 (A) 900 (A) 480 (A) 1100 (A) 500 (A) 1300 (A) 560 (A)	NOM. RATIO ^③ (ACT. RATING) 200 (A) 560 (A) 1400 (B) 240 (A) 600 (A) 1500 (B) 260 (A) 670 (A) 1700 (B) 300 (A) 750 (A) 1900 (C) 360 (A) 800 (A) 2000 (D) 420 (A) 900 (A) 2300 (D) 480 (A) 1050 (A) 530 (A) 1250 (A)	NOM. RATIO ^③ (ACT. RATING) 220 (A) 630 (A) 280 (A) 670 (A) 300 (A) 750 (A) 360 (A) 900 (A) 380 (A) 1050 (A) 420 (A) 1200 (A) 480 (A) 1400 (A) 560 (A) 1700 (B)
n ₁ nom./max.	3000/4000 rpm	3000/4000 rpm	3000/4000 rpm	3000/4000 rpm	3000/4000 rpm
P th ^② /max.	4.5/5 kW	4.5/5.5 kW	4.5/6 kW	5/8 kW	5/9 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 Torque ^⑤	4500 Nm	5500 Nm	6700 Nm	8000 Nm	9000 Nm

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Bearing Capacity, solid shafts^{⑥⑦}



- 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:

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