

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

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

Dimensions METRIC, solid shafts														Keyed										DIN Splined									
Model	A	la	B	db	vb	C	lc	D	p	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	Dk	lk	bk	hk	wk	d1	s1	code	Dx	lx	ls	de	le	di	li	d2	s2	a	o	code
75	280	22	250	15	12x30°	200	14.5	285	40	181.5	250.5	304.5	354.5	80	130	22	85	110	M20	50	K 11	70x64	90	50	62	10	72	10	M10	20	3x120°	40	X 12
85	280	22	250	15	12x30°	200	14.5	285	40	181.5	250.5	304.5	354.5	80	130	22	85	110	M20	50	K 11	70x64	90	50	62	10	72	10	M10	20	3x120°	40	X 12
100	280	22	250	15	12x30°	200	14.5	285	40	181.5	250.5	304.5	354.5	80	130	22	85	110	M20	50	K 11	70x64	90	50	62	10	72	10	M10	20	3x120°	40	X 12
110	280	22	250	15	12x30°	200	14.5	285	40	196.5	265.5	319.5	369.5	80	130	22	85	110	M20	50	K 11	70x64	90	50	62	10	72	10	M10	20	3x120°	40	X 12
130	280	22	250	15	12x30°	200	14.5	285	40	196.5	280.5	334.5	384.5	80	130	22	85	110	M20	50	K 11	70x64	90	50	62	10	72	10	M10	20	3x120°	40	X 12

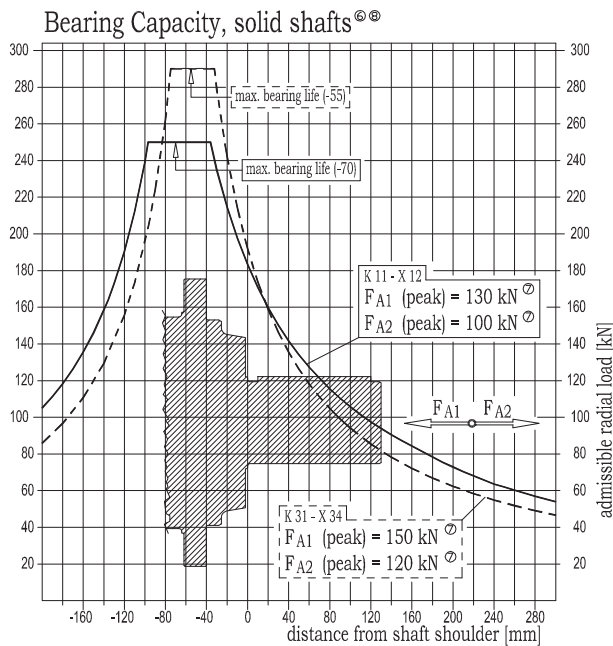
Dimensions METRIC, hollow shafts														Hollow for Shrink Disc										Hollow Splined												
Model	A	D	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	la	B	db	vb	C	lc	p	Dp	lp	Dq	lq	Dw	lw	L <sub>min</sub>	code	la	B	db	vb	C	lc	p	Dz	lz	de	le	di	li	t	code
75	280	285	181.5	250.5	304.5	354.5	22	250	15	12x30°	200	14.5	27	85	90	70	148	110	88	300	P 24	18	260	12.5	10x36°	230	7	11	70x64	65	74	6	30	5	82	Z 21
85	280	285	181.5	250.5	304.5	354.5	22	250	15	12x30°	200	14.5	27	85	90	70	148	110	88	300	P 24	18	260	12.5	10x36°	230	7	11	70x64	65	74	6	30	5	82	Z 21
100	280	285	181.5	250.5	304.5	354.5	22	250	15	12x30°	200	14.5	27	85	90	70	148	110	88	400	P 24	18	260	12.5	10x36°	230	7	11	70x64	65	74	6	30	5	82	Z 21
110	280	285	196.5	265.5	319.5	369.5	22	250	15	12x30°	200	14.5	27	85	90	70	148	110	88	400	P 24	18	260	12.5	10x36°	230	7	11	70x64	65	74	6	30	5	82	Z 21
130	280	285	196.5	265.5	319.5	384.5	22	250	15	12x30°	200	14.5	27	85	90	70	148	110	88	400	P 24	18	260	12.5	10x36°	230	7	11	70x64	65	74	6	30	5	82	Z 21

Dimensions US version, solid shafts														Cylindrical										ANSI Splined										
Model	A	la	B	db	vb	C	lc	D	p	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	Dk	lk	bk	hk	wk	d1	s1	a	o	code	Dx	lx	ls	do	d2	s2	a	o	code		
75	287	22	256.5	5/8"-11	12x30°	209.55	13	285	54.5	130.5	199.5	253.5	303.5	76.2	h7	88.9	19.05	85.1	82.5	1/2" - 20	25	2x180°	47.6	K 31	8/16-23T	84.3	56.5	75.7	h12	1/2" - 20	25	2x180°	47.6	X 34
85	287	22	256.5	5/8"-11	12x30°	209.55	13	285	54.5	130.5	199.5	253.5	303.5	76.2	h7	88.9	19.05	85.1	82.5	1/2" - 20	25	2x180°	47.6	K 31	8/16-23T	84.3	56.5	75.7	h12	1/2" - 20	25	2x180°	47.6	X 34
100	287	22	256.5	5/8"-11	12x30°	209.55	13	285	54.5	130.5	199.5	253.5	303.5	76.2	h7	88.9	19.05	85.1	82.5	1/2" - 20	25	2x180°	47.6	K 31	8/16-23T	84.3	56.5	75.7	h12	1/2" - 20	25	2x180°	47.6	X 34
110	287	22	256.5	5/8"-11	12x30°	209.55	13	285	54.5	145.5	214.5	268.5	318.5	76.2	h7	88.9	19.05	85.1	82.5	1/2" - 20	25	2x180°	47.6	K 31	8/16-23T	84.3	56.5	75.7	h12	1/2" - 20	25	2x180°	47.6	X 34
130	287	22	256.5	5/8"-11	12x30°	209.55	13	285	54.5	145.5	229.5	283.5	333.5	76.2	h7	88.9	19.05	85.1	82.5	1/2" - 20	25	2x180°	47.6	K 31	8/16-23T	84.3	56.5	75.7	h12	1/2" - 20	25	2x180°	47.6	X 34

DIMENSIONS IN MM UNLESS OTHERWISE SPECIFIED

Model	75		85		100		110		130	
Torque Rating <sup>Ⓞ</sup>	7500 Nm		8500 Nm		10000 Nm		11000 Nm		13000 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 <sub>1</sub> nom./max.	2800 rpm	3800 rpm	2500 rpm	3500 rpm	2500 rpm	3500 rpm	2000 rpm	3000 rpm	2000 rpm	3000 rpm
P th./ P mech.	22 kW	120 kW	22 kW	125 kW	22 kW	132 kW	24 kW	145 kW	24 kW	158 kW
L2	NOM. RATIO <sup>Ⓞ</sup> (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 <sup>Ⓞ</sup> (ACT. RATING) 11 (B) 22 (A) 12 (B) 26 (A) 14 (A) 30 (A) 16 (A) 35 (B) 19 (B)		NOM. RATIO <sup>Ⓞ</sup> (ACT. RATING) 12 (A) 26 (A) 14 (A) 30 (A) 16 (A) 19 (A) 22 (A)		NOM. RATIO <sup>Ⓞ</sup> (ACT. RATING) 12 (A) 30 (B) 16 (A) 36 (C) 19 (A) 42 (D) 22 (B) 26 (B)		NOM. RATIO <sup>Ⓞ</sup> (ACT. RATING) 16 (A) 35 (B) 19 (B) 22 (A) 25 (A) 30 (A)	
n <sub>1</sub> nom./max.	2800 rpm	3800 rpm	2800 rpm	3800 rpm	2800 rpm	3800 rpm	2800 rpm	3800 rpm	2800 rpm	3800 rpm
P th./ P mech.	13.5 kW	54 kW	13.5 kW	57 kW	13.5 kW	60 kW	15 kW	66 kW	15 kW	72 kW
L3	NOM. RATIO <sup>Ⓞ</sup> (ACT. RATING) 42 (A) 120 (A) 260 (B) 48 (A) 130 (A) 300 (B) 53 (A) 140 (A) 340 (C) 63 (A) 160 (A) 71 (A) 180 (A) 85 (A) 210 (B) 100 (A) 240 (B)		NOM. RATIO <sup>Ⓞ</sup> (ACT. RATING) 48 (A) 110 (A) 53 (A) 130 (A) 60 (A) 150 (A) 71 (A) 160 (A) 80 (A) 180 (A) 90 (A) 210 (A) 100 (A) 240 (B)		NOM. RATIO <sup>Ⓞ</sup> (ACT. RATING) 42 (A) 110 (A) 48 (A) 130 (A) 53 (A) 140 (A) 60 (A) 150 (A) 71 (A) 160 (A) 80 (A) 180 (A) 95 (A) 210 (A)		NOM. RATIO <sup>Ⓞ</sup> (ACT. RATING) 42 (A) 110 (A) 48 (A) 130 (A) 53 (A) 150 (B) 60 (A) 180 (B) 71 (A) 210 (B) 80 (A) 250 (C) 95 (A) 300 (D)		NOM. RATIO <sup>Ⓞ</sup> (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 <sub>1</sub> nom./max.	3000 rpm	4000 rpm	3000 rpm	4000 rpm	3000 rpm	4000 rpm	3000 rpm	4000 rpm	3000 rpm	4000 rpm
P th./ P mech.	9.5 kW	22 kW	9.5 kW	23.5 kW	9.5 kW	25 kW	10.5 kW	28 kW	10.5 kW	31 kW
L4	NOM. RATIO <sup>Ⓞ</sup> (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 <sup>Ⓞ</sup> (ACT. RATING) 220 (A) 750 (A) 1700 (B) 280 (A) 850 (A) 320 (A) 950 (A) 380 (A) 1050 (A) 420 (A) 1100 (A) 500 (A) 1250 (A) 560 (A) 1400 (A) 670 (A) 1500 (B)		NOM. RATIO <sup>Ⓞ</sup> (ACT. RATING) 220 (A) 670 (A) 260 (A) 710 (A) 300 (A) 800 (A) 360 (A) 900 (A) 420 (A) 1050 (A) 480 (A) 1250 (A) 560 (A) 1400 (A) 600 (A)		NOM. RATIO <sup>Ⓞ</sup> (ACT. RATING) 180 (A) 600 (A) 1500 (B) 220 (A) 670 (A) 1700 (C) 260 (A) 710 (A) 2000 (D) 300 (A) 800 (A) 360 (A) 900 (A) 420 (A) 1050 (B) 480 (A) 1250 (B) 560 (A) 1300 (B)		NOM. RATIO <sup>Ⓞ</sup> (ACT. RATING) 220 (A) 670 (A) 1400 (A) 260 (B) 750 (A) 1500 (B) 300 (A) 850 (A) 1700 (B) 360 (A) 900 (A) 420 (A) 950 (A) 480 (A) 1050 (A) 560 (A) 1200 (A) 600 (A) 1300 (A)	
n <sub>1</sub> nom./max.	3000 rpm	4000 rpm	3000 rpm	4000 rpm	3000 rpm	4000 rpm	3000 rpm	4000 rpm	3000 rpm	4000 rpm
P th./ P mech.	7.5 kW	11 kW	7.5 kW	11.5 kW	7.5 kW	12 kW	8.5 kW	13.5 kW	8.5 kW	15 kW
Actual Torque [Nm] <sup>Ⓞ</sup>	(A) 8700 (B) 7800 (C) 6600		(A) 10400 (B) 9400		(A) 12000		(A) 13000 (B) 11700 (C) 10800 (D) 9900		(A) 15000 (B) 13000	
Peak Torque <sup>Ⓞ</sup>	10500 Nm		12000 Nm		13500 Nm		15000 Nm		16000 Nm	

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- 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:

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