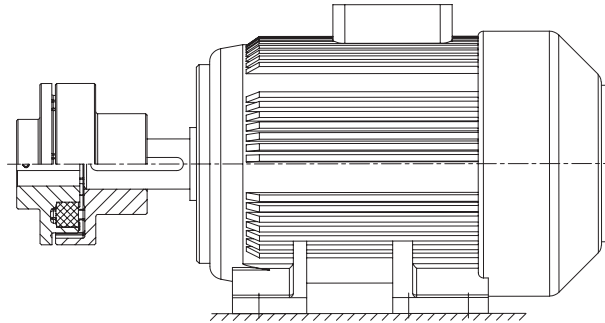


POLY

Flexible couplings

Selection of standard IEC motors



POLY couplings for standard IEC standard motors, protection class IP 54/IP 55

A. C. motor 50 Hz		Motor power n= 3000 rpm 2 poles		POLY coupling size	Motor power n= 1500 rpm 4 poles		POLY coupling size	Motor power n= 1000 rpm 6 poles		POLY coupling size	Motor power n= 750 rpm 8 poles		POLY coupling size
Size	Shaft end dxl [mm]	Power P [kW]	Torque T [Nm]		Power P [kW]	Torque T [Nm]		Power P [kW]	Torque T [Nm]		Power P [kW]	Torque T [Nm]	
56	9 x 20	0.09	0.32	8	0.06	0.43	8	0.037	0.43	8			8
		0.12	0.41		0.09	0.64		0.045	0.52				
63	11 x 23	0.18	0.62	8	0.12	0.88	8	0.06	0.7	8			8
		0.25	0.86		0.18	1.3		0.09	1.1				
71	14 x 30	0.37	1.3	8	0.25	1.8	8	0.18	2	8	0.09	1.4	8
		0.55	1.9		0.37	2.5		0.25	2.8		0.12	1.8	
80	19 x 40	0.75	2.5	8	0.55	3.7	8	0.37	3.9	8	0.18	2.5	8
		1.1	3.7		0.75	5.1		0.55	5.8		0.25	3.5	
90S	24 x 50	1.5	5	8	1.1	7.5	8	0.75	8	8	0.37	5.3	8
90L		2.2	7.4		1.5	10		1.1	12		0.55	7.9	
100L	28 x 60	3	9.8	9	2.2	15	9	1.5	15	9	0.75	11	9
112M		4	13		3	20		1.1	16		1.1	16	
132S	38 x 80	5.5	18	10	4	27	10	2.2	22	10	1.5	21	10
		7.5	25		5.5	36		3	30		2.2	30	
132M	38 x 80			10	7.5	49	10	4	40	10	3	40	10
160M		11	36		11	72		7.5	75		4	54	
160L	42 x 110	15	49	12	15	98	12	11	109	14	5.5	74	14
180M		18.5	60		18.5	121		11	109		7.5	100	
180L	48 x 110	22	71	14	22	144	14	15	148	14	11	145	14
200L		30	97		30	196		18.5	181		15	198	
225S	55 x 110	37	120	15	37	240	17	22	215	15	18.5	244	17
225M		45	145		45	292		30	293		22	290	
250M	60 x 140	65 x 140	55	177	17	55	356	37	361	20	30	392	20
280S	75 x 140	75	241	20*	75	484	20	45	438	20	37	483	20
280M		90	289		90	581		55	535		45	587	
315S	65 x 140	80 x 170	110	353	20*	110	707	75	727	22	55	712	22
315M		132	423	132		849	90	873	75		971		
315L	85 x 170	160	513	20*	160	1030	25	110	1070	25	90	1170	25
		200	641		200	1290		132	1280		110	1420	
315	85 x 170	250	802	22*	250	1600	28	160	1550	28	132	1710	28
		315	1010		315	2020		200	1930		160	2070	
355	75 x 140	355	1140	30	355	2280	30	250	2410	30	200	2580	30
		400	1280		400	2570		315	3040		250	2580	
400	80 x 170	500	1600	35	500	3210	35	400	3850	35	315	4060	35
		560	1790		560	3580		450	4330		355	4570	
450	90 x 170	630	2020	40	630	4030	40	500	4810	40	400	5150	40
		710	2270		710	4540		560	5390		450	5790	
450	120 x 210	800	2560	40	800	5120	40	630	6060	40	500	6420	40
		900	2880		900	5760							
		1000	3200		1000	6400							

The coupling selection is based on an ambient temperature up to +30 °C. The coupling was selected for normal operation. The couplings selected have a minimum operating factor $f_{min.} = 1.35$. Drives with periodical torque curves must be selected according to DIN 740 part 2. If requested, KTR will perform the selection.

Torque T = rated torque according to Siemens catalogue M 11 · 1994/95.

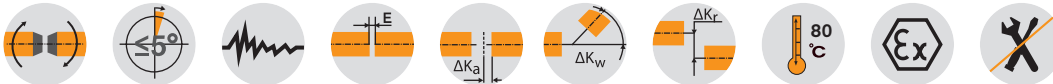
* Dynamic balancing required

POLY PKZ and PKD Flexible couplings

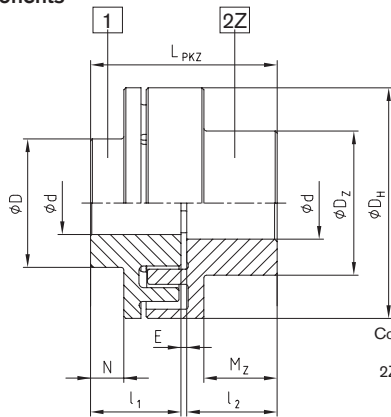
PKZ (two-part) and PKD (three-part)



For legend of pictogram please refer to flapper on the cover

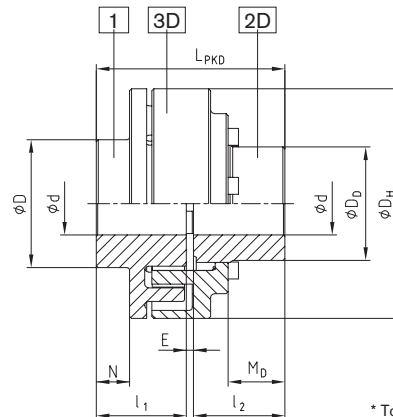


Components



Components of type PKZ (Z):
1 = Cam section (GJL)
2Z = Pocket element * (GJL)
* To be used preferably on driving side

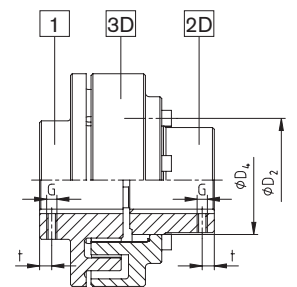
Type PKZ (Z) – (Size 8 to 30)



Components of type PKD (D):
1 = Cam section * (GJL)
2D = Flange hub (steel)
3D = Cam ring (GJL)
* To be used preferably on driving side

Type PKD (D) – (Size 15 to 35)

POLY Type PKZ and PKD																					
Size	Rated torque ¹⁾ TKN [Nm]	Max. speed ²⁾ n [rpm]	Max. finish bore d			Dimensions [mm]											Setscrew			Weight ³⁾ [kg]	
			Component 1	Component 2Z	Component 2D	D _H	D	D _Z	D _D	l ₁ , l ₂	M _Z	M _D	N	E	D ₂	D ₄ (H7/h7)	LPKZ/LPKD	G	t		T _A [Nm]
8 (Z)	42	5000	20	28	—	86	43	50	—	35	25	—	3	3	—	—	73	M5	18	2	1.7
9 (Z)	72	5000	28	38	—	97	55	65	—	41	30	—	7	3	—	—	85	M8	23	10	2.7
10 (Z)	100	5000	32	42	—	107	60	70	—	45	35	—	10	4	—	—	94	M8	27	10	3.5
12 (Z)	170	5000	38	48	—	131	70	80	—	55	43	—	12	4	—	—	114	M8	30	10	5.4
14 (Z)	210	4800	45	55	—	142	80	93	—	60	46	—	17	4	—	—	124	M8	10	10	7.6
15 (Z;D)	320	4300	50	60	50	157	90	100	74.5	65	52	33	21	4	90	75	134	M8	15	10	8.6
17 (Z;D)	400	3800	60	65	60	176	100	110	87	70	56	43.5	26	4	106	90	144	M8	15	10	12
20 (Z;D)	820	3300	65	75	70	205	115	127	104	80	65	45	23	4	123	105	164	M8	15	10	20
22 (Z)	1100	3000	85	85	—	224	140	140	—	90	75	—	38	4	—	—	184	M10	20	17	25
25 (Z;D)	1600	2700	90	90	95	257	150	150	138	100	84	67	43	5	162	140	205	M12	20	40	35
28 (Z;D)	2500	2350	100	100	110	288	165	165	158	110	90	65	44	5	178	160	225	M12	20	40	53
30 (Z;D)	3950	2200	110	110	110	308	180	180	165	130	108	89	58	5	202	170	265	M16	20	80	66
35 (D)	6100	1850	130	—	145	373	210	—	209	160	—	102	70	5	240	210	325	M16	25	80	125



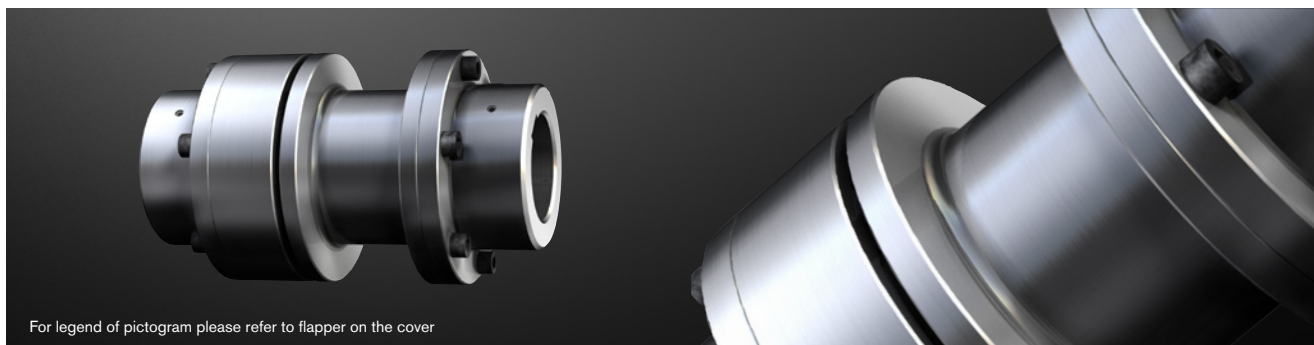
¹⁾ Maximum torque $T_{K \max} = T_{KN} \times 2$; elastomer: standard material Perbunan [NBR] 92 Shore A; hub: standard material GJL
²⁾ Speeds for $v = 30$ m/s. For circumferential speeds exceeding $v = 30$ m/s, we recommend dynamic balancing
³⁾ Referring to average bore

Ordering example:	POLY	PKD	28	$d_1 = \varnothing 90$	$d_2 = \varnothing 80$
	Coupling type	Type	Size	Finish bore component 1	Finish bore component 2

POLY PKA

Flexible couplings

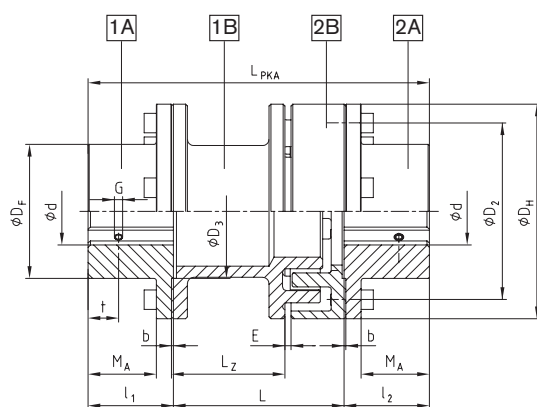
Drop-out center design coupling



For legend of pictogram please refer to flapper on the cover



Components



Components of type PKA:
 1A/2A = Coupling flange (steel)
 1B = Spacer (GJL)
 2B = Driving flange (GJL)
 1A and 1B to be used preferably on driving side

POLY Type PKA

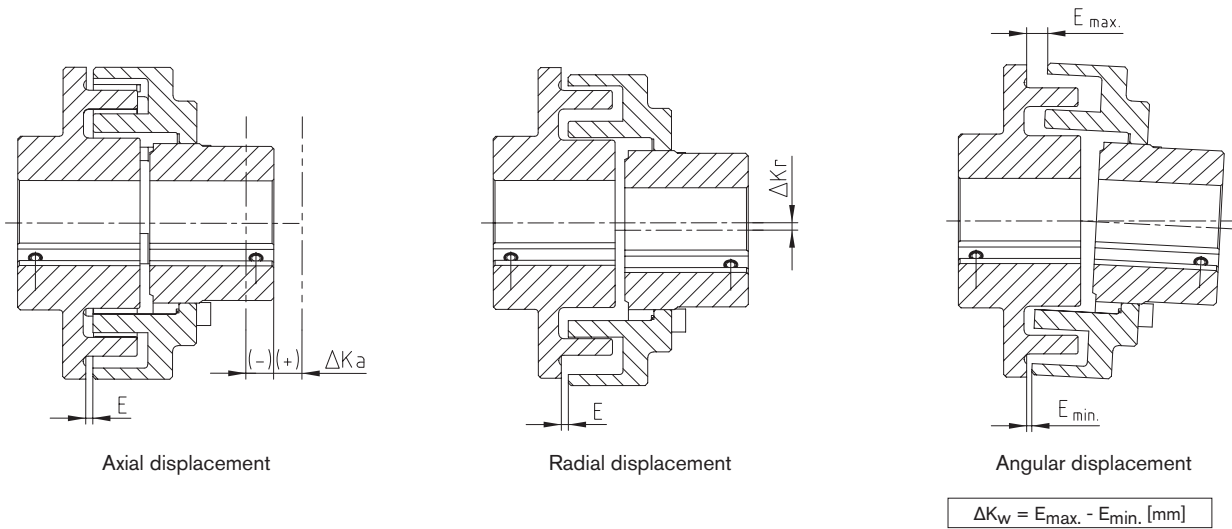
Size	Rated torque T_{KN} [Nm]	Max. speed n [rpm]	Max. finish bore d component 1A/2A	Dimensions [mm]											Setscrew			Weight [kg]
				D_H	D_F	D_2	D_3	l_1, l_2	b	M_A	E	L	L_{PKA}	L_Z	G	t	T_A [Nm]	
8	42	5000	40	86	55	70	60	35	1.5	25.5	3	100	170	66	M5	15	2	3.04
9	72	5000	50	97	70	85	70	41	1.5	30.5	3	100	182	63	M8	15	10	4.26
												140	222	103				4.66
10	100	5000	55	107	78	93	80	46	1.5	35.5	4	100	192	61	M8	20	10	5.42
												140	232	101				5.88
12	170	5000	70	131	95	113	90	55	1.5	43.0	4	100	210	55	M8	20	10	9.49
												140	250	95				10.15
14	210	4800	75	142	105	125	100	60	1.5	48.0	4	100	220	54	M8	25	10	11.46
												140	260	94				12.23
15	320	4300	80	157	110	135	110	65	1.5	49.5	4	140	270	93	M8	25	10	15.63
												180	310	133				16.50
17	400	3800	90	176	125	150	110	70	1.5	54.5	4	140	280	93	M8	25	10	19.60
												180	320	133				20.41
20	820	3300	110	205	150	175	130	80	2.0	61.0	4	140	300	81	M8	30	10	30.96
												180	340	121				32.18

Ordering example:	POLY	PKA	15	140	Ø38	Ø40
	Coupling type	Type	Size	Drop-out center length	Finish bore component 1A	Finish bore component 2A

POLY

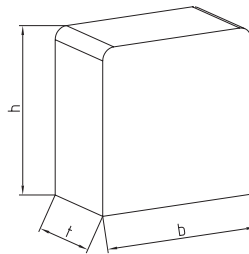
Flexible couplings

Displacements / elastomer sets / screws



Radial and angular displacements may occur simultaneously.
 The combined sum $V = \Delta K_r \text{ [mm]} + (E_{max} \text{ [mm]} - E_{min} \text{ [mm]})$ should not exceed the values listed in the table.

		Displacements [mm]													
Coupling size		8	9	10	12	14	15	17	19	20	22	25	28	30	35
Max. axial displacement ΔK_a [mm]		± 1	± 1	± 1	± 2	± 2	± 2	± 2	± 2	± 2	± 2	± 2	± 2	± 2	± 3
Max. radial displacement ΔK_r or max. angular displacement ΔK_w or sum V	n=750 rpm	0.8	0.8	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.2	1.2
	n=1000 rpm	0.7	0.7	0.7	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.1	1.1
	n=1500 rpm	0.5	0.5	0.5	0.5	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.9



		Elastomer sets NBR (cuboid)													
Coupling size		8	9	10	12	14	15	17	19	20	22	25	28	30	35
Size of set		1			2		3		3a	4	3b	4Ü	5	6Ü	7Ü
Number of sets		8	10	10	10	10	12	12	12	12	16	16	16	16	20
Dimensions of elastomer set w x d x h [mm]	b	18.4			24.9		27.2		27.7	34.9	29.6	34.8	40	43.3	45.7
	t	10			15.3		16.1		18.4	19.6	18.4	20.1	22.2	28.6	25.0
	h	18.9			23.9		24.6		26.8	34.6	29.6	35	40.6	41.1	60.0

		Type PKD - Dimensions of cap screws acc. to DIN EN ISO 4762													
Coupling size		8	9	10	12	14	15	17	19	20	22	25	28	30	35
Screw size	M	—	—	—	—	—	M8	M8	M8	M10	M8	M10	M10	M12	M12
	I	—	—	—	—	—	30	25	25	30	30	30	40	40	55
Number		—	—	—	—	—	6	6	6	6	8	8	8	8	10
Tightening torque T_A [Nm]		—	—	—	—	—	25	25	25	49	25	49	49	86	86
		Type PKA - Dimensions of cap screws acc. to DIN EN ISO 4762													
Screw size	M	M6	M6	M6	M8	M8	M10	M10	—	M10	—	M10	—	—	—
	I	16	18	18	20	20	25	25	—	30	—	30	—	—	—
Number		4	5	5	5	5	6	6	—	6	—	8	—	—	—
Tightening torque T_A [Nm]		10	10	10	25	25	49	49	—	49	—	49	—	—	—