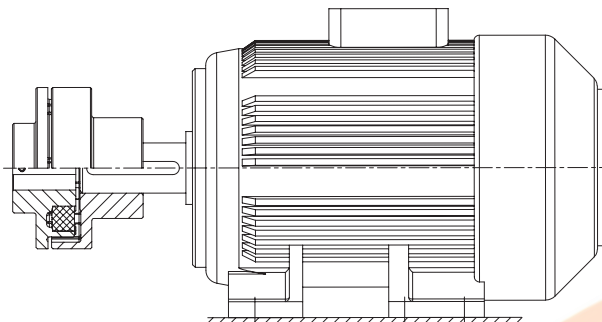


POLY

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]	
	2 poles	4, 6, 8 poles											
56	9 x 20		0.09	0.32		0.06	0.43		0.037	0.43			
			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		
			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
			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
			1.1	3.7		0.75	5.1		0.55	5.8		0.25	3.5
90S	24 x 50		1.5	5	9	1.1	7.5	9	0.75	8	9	0.37	5.3
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
						3	20					1.1	16
112M			4	13	10	4	27	10	2.2	22	10	1.5	21
132S			5.5	18		5.5	36		3	30		2.2	30
132M	38 x 80		7.5	25	10	7.5	49	10	4	40	10	3	40
												5.5	55
160M	42 x 110		11	36	12	11	72	12	7.5	75	14	4	54
			15	49		15	98		11	109		5.5	74
160L			18.5	60	14	18.5	121	14	15	148	15	11	145
180M	48 x 110		22	71		22	144		15	148		11	145
180L					15			15			15		
200L	55 x 110		30	97		30	196		15	181		15	198
			37	120				22	215				
225S	55 x 110				17	37	240	17			17	18.5	244
225M	60 x 140	60 x 140	45	145		45	292		30	293		22	290
250M	60 x 140	65 x 140	55	177	17	55	356	20	37	361	20	30	392
280S	75 x 140		75	241	20*	75	484	20	45	438	20	37	483
280M			90	289		90	581		55	535		45	587
315S			110	353	20*	110	707	22	75	727	22	55	712
315M			132	423		132	849		90	873		75	971
			160	513	25	160	1030	25	110	1070	25	90	1170
315L	65 x 140		200	641		200	1290		132	1280		110	1420
					22*			28	160	1550	28	132	1710
315	85 x 170		250	802		250	1600		200	1930		160	2070
			315	1010	315	2020	250	2410	200	2580	30	200	2580
			355	1140	30	355	2280	30			35		
355	75 x 140		400	1280		400	2570		315	3040		250	3220
			500	1600	35	500	3210	35	400	3850	35	315	4060
			560	1790		560	3580		450	4330		355	4570
400	80 x 170		630	2020	40	630	4030	40	500	4810	40	400	5150
			710	2270		710	4540		560	5390		450	5790
			800	2560	40	800	5120	40	630	6060	40	500	6420
450	90 x 170		900	2880		900	5760						
			1000	3200		1000	6400						

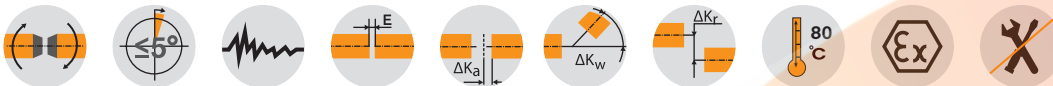
The coupling selection is based on an ambient temperature up to +30 °C. The coupling was selected for normal operation. The couplings selected have a minimum operating factor $f_{min.} = 1.35$. Drives with periodical torque curves must be selected according to DIN 740 part 2. If requested, KTR will perform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

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

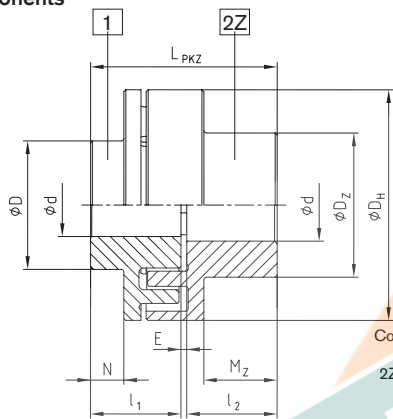
* Dynamic balancing required

POLY PKZ and PKD Flexible couplings

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

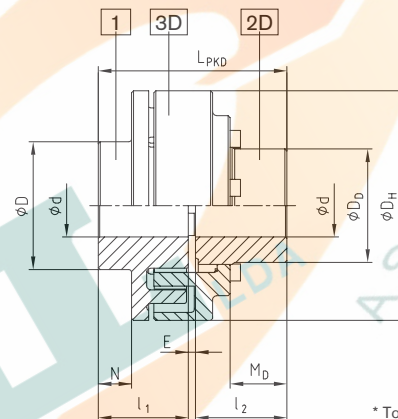


Components



Type PKZ (Z) – (Size 8 to 30)

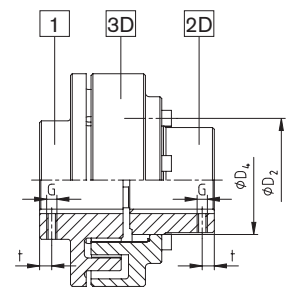
Components of type PKZ (Z):
 1 = Cam section (GJL)
 2Z = Pocket element * (GJL)
 * To be used preferably on driving side



Type PKD (D) – (Size 15 to 35)

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

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	30	—	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	



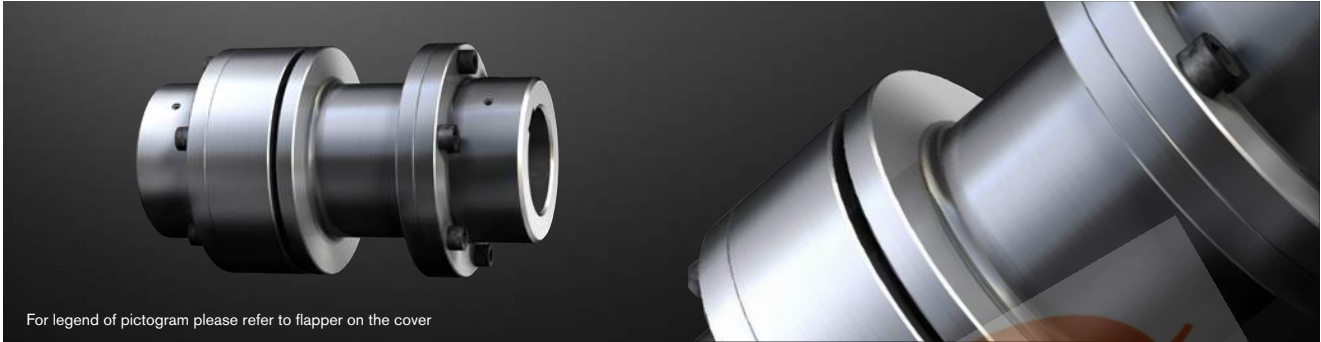
¹⁾ Maximum torque $T_{K \max} = T_{KN} \times 2$; elastomer: standard material Perbunan [NBR] 92 Shore A; hub: standard material GJL
²⁾ Speeds for $v = 30$ m/s. For circumferential speeds exceeding $v = 30$ m/s, we recommend dynamic balancing
³⁾ Referring to average bore

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

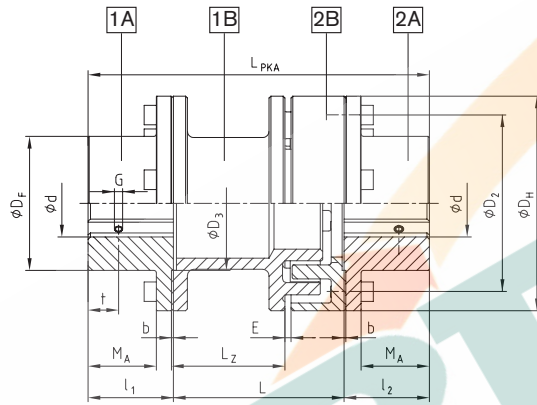
Drop-out center design coupling



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

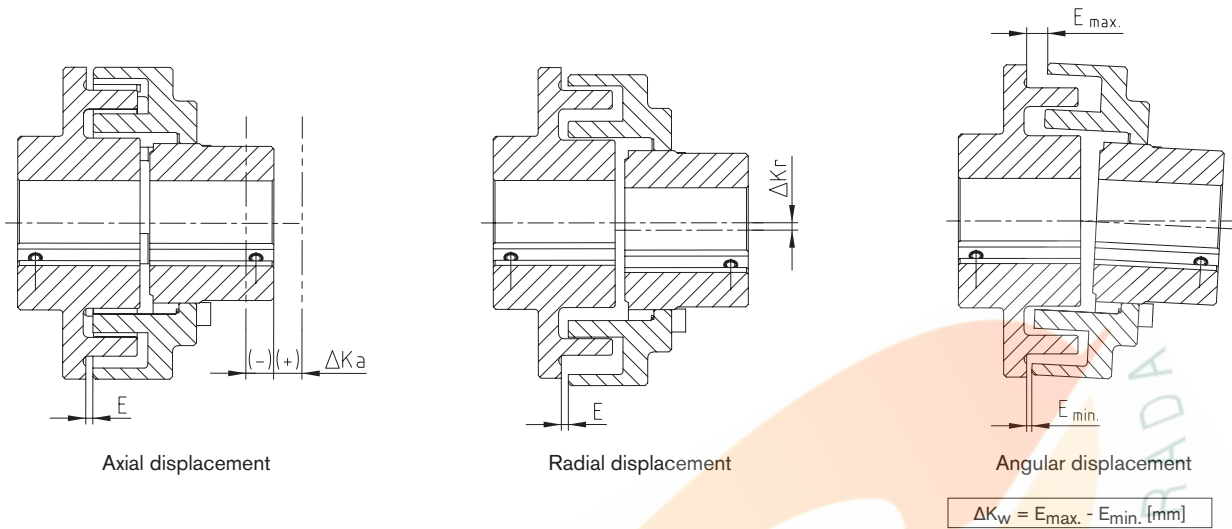
Ordering example:

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

POLY

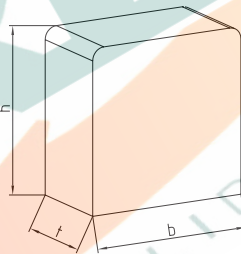
Flexible couplings

Displacements / elastomer sets / screws



Radial and angular displacements may occur simultaneously.
 The combined sum $V = \Delta K_r \text{ [mm]} + (E_{\max.} \text{ [mm]} - E_{\min.} \text{ [mm]})$ must 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	—	—	—