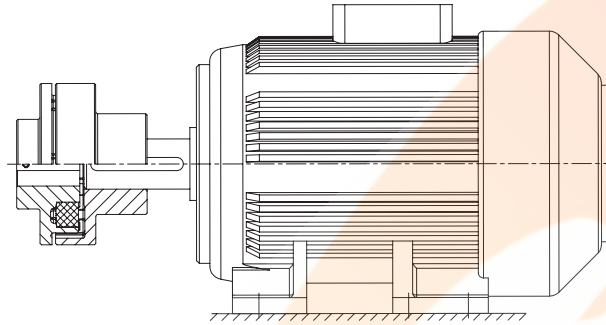


POLY

Flexible couplings

Selection of standard IEC motors



ROTEX®

POLY-NORM®

POLY

REVOLEX®

POLY couplings for standard IEC 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
		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
					3	20					1.1	16	
112M	38 x 80	4	13	10	4	27	10	2.2	22	10	1.5	21	10
		5.5	18		5.5	36		3	30		2.2	30	
132S	38 x 80	7.5	25	10	7.5	49	10	4	40	10	3	40	10
								5.5	55				
160M	42 x 110	11	36	12	11	72	12	7.5	75	14	4	54	14
		15	49		15	98		11	109		5.5	74	
160L	48 x 110	18.5	60	12	18.5	121	14	15	148	14	7.5	100	14
		22	71		22	144		15	148		11	145	
180M	48 x 110	22	71	14	22	144	14	15	148	14	11	145	14
200L	55 x 110	30	97	15	30	196	15	18.5	181	15	15	198	15
		37	120		37	240		22	215		15	198	
225S	55 x 110			15	37	240	17			17	18.5	244	17
225M	60 x 140	45	145	17	45	292	19	30	293	19	22	290	19
250M	60 x 140	55	177	17	55	356	19	37	361	19	30	392	19
280S	65 x 140	75	241	19*	75	484	20	45	438	20	37	483	20
280M	75 x 140	90	289	19*	90	581	20	55	535	20	45	587	20
315S	80 x 170	110	353	20*	110	707	22	75	727	22	55	712	22
315M	80 x 170	132	423	20*	132	849	25	90	873	25	75	971	25
		160	513		160	1030		110	1070		90	1170	
315L	85 x 170	200	641	22*	200	1290	28	132	1280	28	110	1420	28
315	85 x 170	250	802	22*	250	1600	28	200	1930	30	160	2070	30
		315	1010		315	2020		250	2410		200	2580	
355	75 x 140	355	1140	30	355	2280	30			30	200	2580	30
400	80 x 170	400	1280	35	400	2570	35	315	3040	35	250	3220	35
		500	1600		500	3210		400	3850		315	4060	
400	110 x 210	560	1790	35	560	3580	35	450	4330	35	355	4570	35
		630	2020		630	4030		500	4810		400	5150	
450	90 x 170	710	2270	40	710	4540	40	560	5390	40	450	5790	40
		800	2560		800	5120		630	6060		500	6420	
450	120 x 210	900	2880	40	900	5760	40			40			40
		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 respective couplings have a minimum operating factor of $f_{min} = 1.35$. 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.

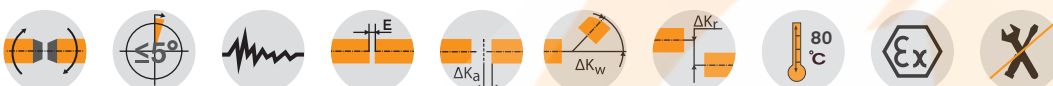
* Dynamic balancing required

POLY PKZ and PKD Flexible couplings

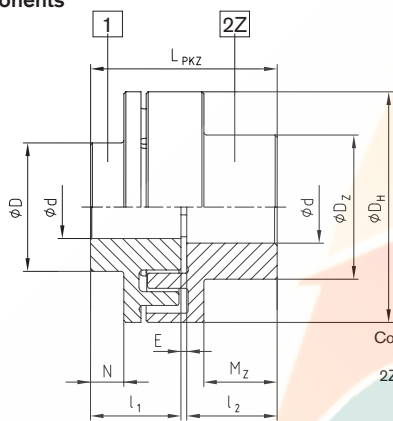
PKZ (two-part) and PKD (three-part)



For legend of pictogram please refer to flapper on the cover

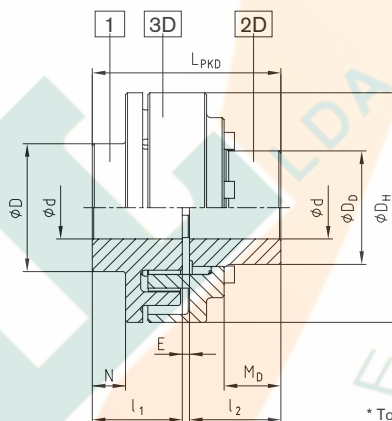


Components



Type PKZ (Z) – (Size 8 to 30)

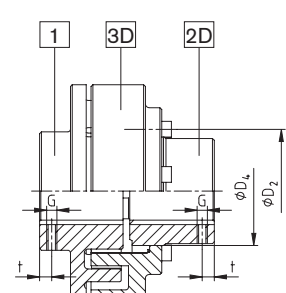
Components of type PKZ (Z):
 1 = Cam element (GJL)
 2Z = Pocket element * (GJL)
 * To be used preferably on driving side



Type PKD (D) – (Size 15 to 35)

Components of type PKD (D):
 1 = Cam component * (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⁾ T _{KN} [Nm]	Max. speed ²⁾ n [rpm]	Max. finish bore d			Dimensions [mm]													Thread for setscrews			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	
19 (Z;D)	660	3500	75	75	70	195	125	125	106	75	64	48	27	4	126	107	154	M8	15	10	18	
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} x 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

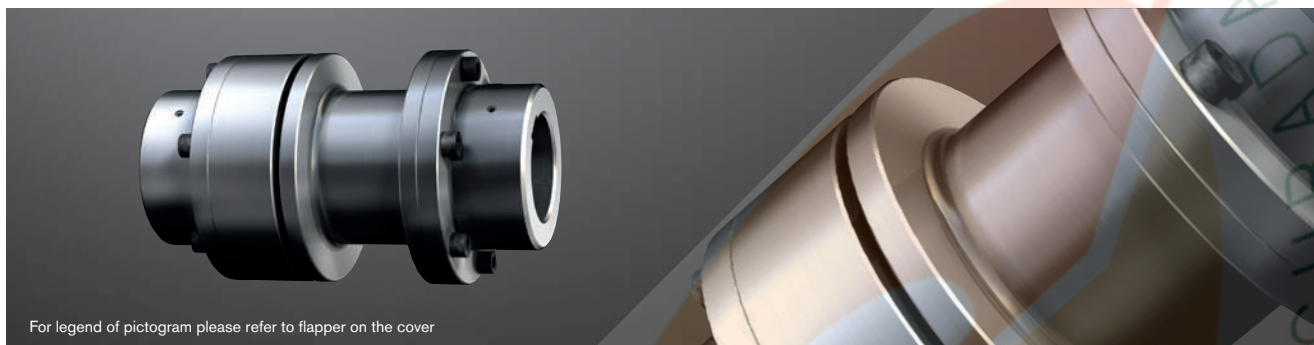
Ordering example:	POLY	PKD	28	d ₁ = Ø90	d ₂ = Ø80
	Coupling type	Type	Size	Finish bore component 1	Finish bore component 2

POLY PKA

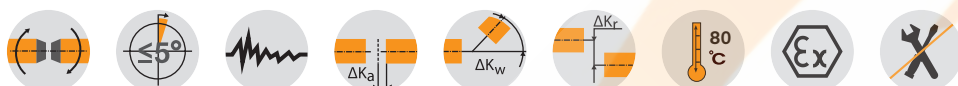
Flexible couplings

Flexible jaw and pin & bush couplings

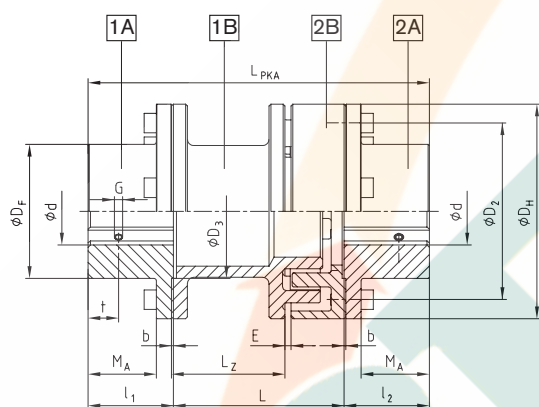
Drop-out center design coupling



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]											Thread for setscrews			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	100	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	100	240	53	M8	25	10	18.79
												140	280	93				19.60
20	820	3300	110	205	150	175	130	80	2.0	61.0	4	180	320	133	M8	30	10	20.41
												140	300	81				30.96
25	1600	2700	140	257	195	225	150	100	2.0	81.0	5	180	340	121	M12	40	40	32.18
												140	340	81				54.73
												250	450	191				56.50
																		59.60

ROTEX®

POLY-NORM®

POLY

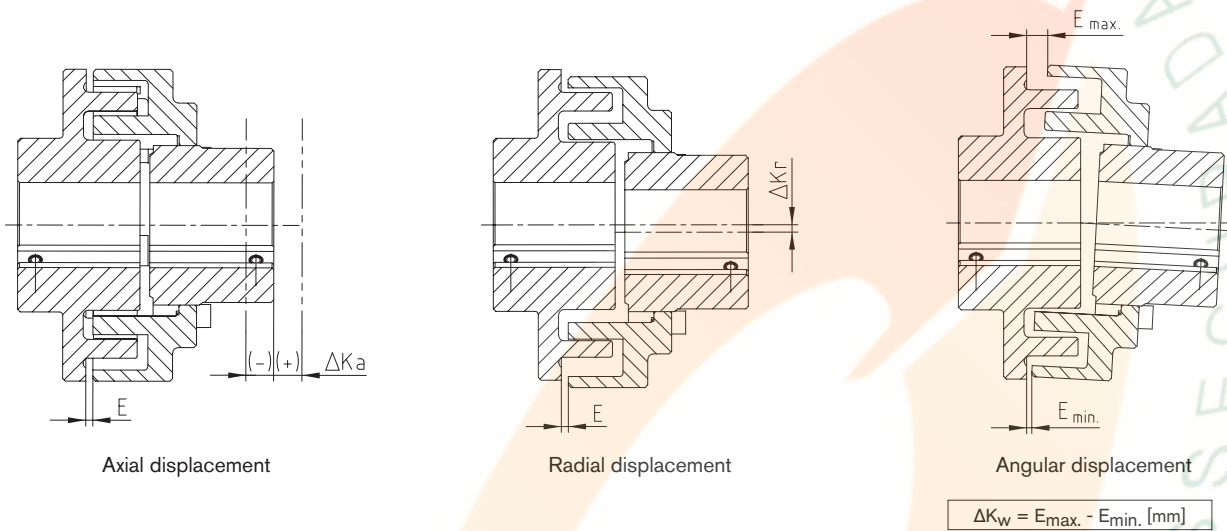
REVOLLEX®

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

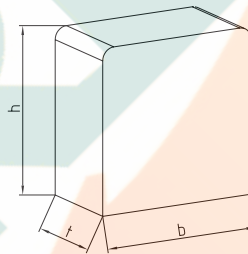
Flexible couplings

Displacements / elastomer sets / screws



Radial and angular displacements may occur simultaneously.
 The combined sum $V = \Delta K_r [\text{mm}] + (E_{\text{max.}} [\text{mm}] - E_{\text{min.}} [\text{mm}])$ 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 ΔKa [mm]		±1	±1	±1	±2	±2	±2	±2	±2	±2	±2	±2	±2	±2	±3
Max. radial displacement ΔKr or max. angular displacement ΔKw 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 (building block)													
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 b x t 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 TA [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 TA [Nm]		10	10	10	25	25	49	49	—	49	—	49	—	—	—