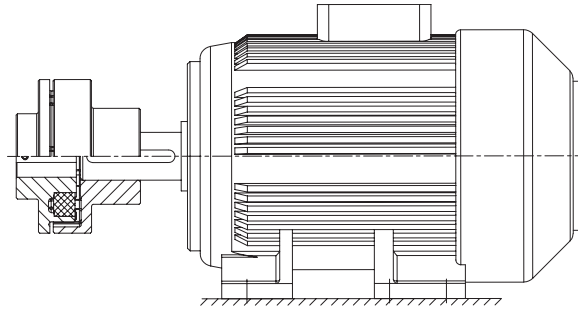


POLY

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]	
	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		0.12	0.88		0.06	0.7				
			0.25	0.86	8	0.18	1.3	8	0.09	1.1	8			
71	14 x 30		0.37	1.3		0.25	1.8		0.18	2		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		0.55	3.7		0.37	3.9		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		1.1	7.5		0.75	8		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	9
						3	20					1.1	16	
112M			4	13		4	27		2.2	22		1.5	21	
132S			5.5	18		5.5	36		3	30		2.2	30	
			7.5	25	10			10	4	40	10	3	40	10
132M	38 x 80					7.5	49		5.5	55				
160M	42 x 110		11	36		11	72	12	7.5	75		4	54	
			15	49								5.5	74	
160L			18.5	60	12	15	98		11	109	14	7.5	100	14
180M	48 x 110		22	71		18.5	121	14						
180L						22	144		15	148		11	145	
200L	55 x 110		30	97		30	196	15	18.5	181	15	15	198	15
			37	120	15				22	215				
225S	55 x 110					37	240	17				18.5	244	17
225M	60 x 140		45	145		45	292		30	293	20	22	290	20
250M	60 x 140		55	177	17	55	356	20	37	361		30	392	20
280S	75 x 140		75	241		75	484	20	45	438	20	37	483	20
280M			90	289	20*	90	581		55	535		45	587	
315S	80 x 170		110	353		110	707	22	75	727	22	55	712	22
315M	65 x 140		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
									160	1550		132	1710	
315			250	802		250	1600		200	1930		160	2070	30
			315	1010		315	2020		250	2410	30	200	2580	
			355	1140		355	2280	30						
355	75 x 140		400	1280		400	2570		315	3040		250	3220	35
			500	1600		500	3210		400	3850	35	315	4060	
			560	1790		560	3580	35	450	4330		355	4570	
400	80 x 170		630	2020		630	4030		500	4810		400	5150	40
			710	2270		710	4540		560	5390	40	450	5790	
			800	2560		800	5120		630	6060		500	6420	
450	90 x 170		900	2880		900	5760	40						
			1000	3200		1000	6400							

The coupling selection is based on an ambient temperature of 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.

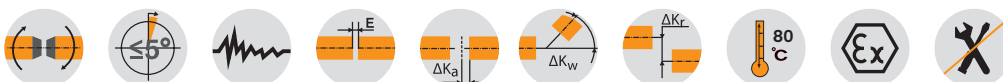
* Dynamic balancing required

POLY PKZ and PKD Flexible couplings

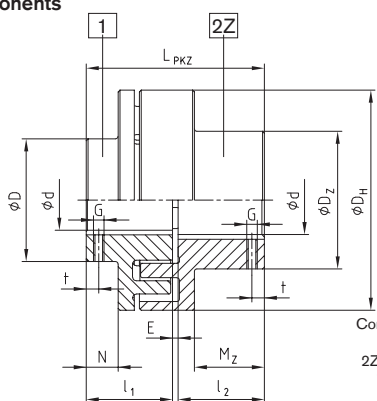
PKZ (two-part) and PKD (three-part)



For legend of pictogram refer to flapper on the cover

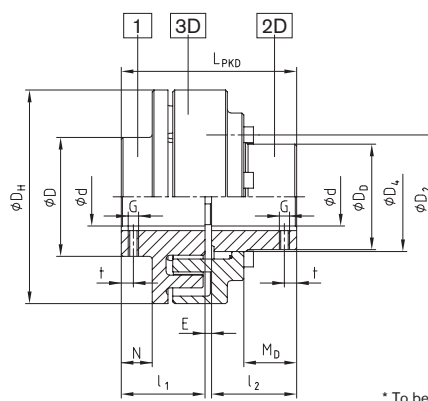


Components



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 preferably used on driving side

Type PKD (D) – (Size 15 to 35)

POLY Type PKZ and PKD																					
Size	Rated torque ¹⁾ T _{KN} [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
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

ROTEX®

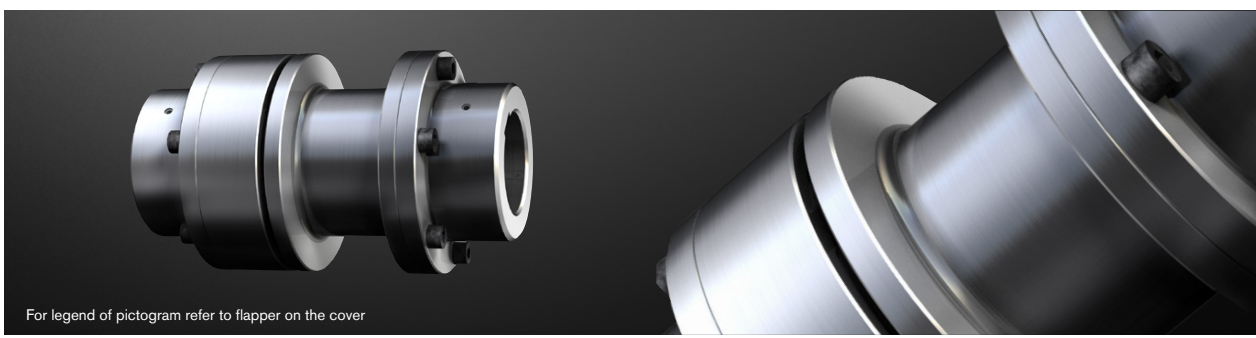
ROFLEX®

POLY-NORM®

POLY

REVOLLEX®

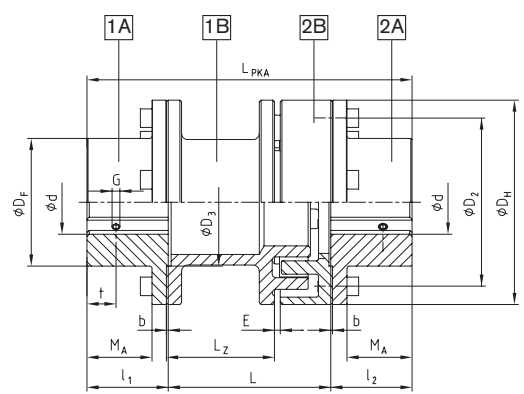
Drop-out center design coupling



For legend of pictogram 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 preferably used 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]		
				DH	DF	D2	D3	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	
												140	222	103					
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	
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	

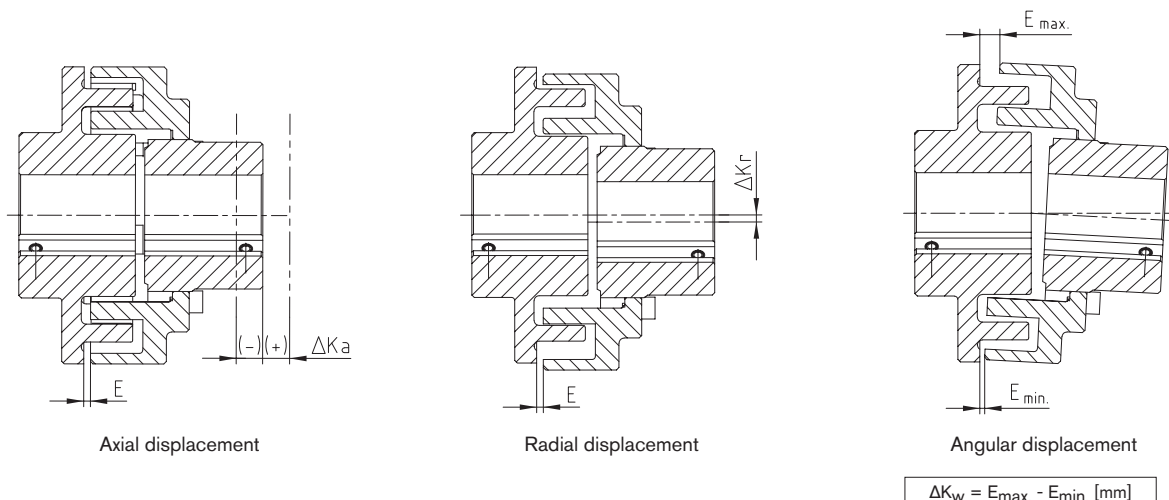
Ordering example:

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

POLY

Flexible couplings

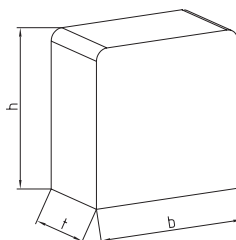
Displacements / elastomer sets / screws



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	1.2	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	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	0.9



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		4Ü		7Ü		
Number of sets	8	10	10	10	10	12	12	12	12	16	16	16	16	20	
Dimensions of elastomer sets w x d x h [mm]	b	18.4		24.9		27.2		27.7		34.9		34.8		45.7	
	t	10		15.3		16.1		18.4		19.6		20.1		25.0	
	h	18.9		23.9		24.6		26.8		34.6		29.6		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
	I	—	—	—	—	—	30	25	25	30	30	40	40	55
Number	—	—	—	—	—	—	6	6	6	6	8	8	8	10
Tightening torque T_A [Nm]	—	—	—	—	—	—	25	25	25	49	25	49	49	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	—	—	