



Coupling Type		ZKES 02	ZKES 04	ZKES 06	ZKES 08	ZKES 10	ZKES 13	ZKES 15	ZKES 17	ZKES 19
T_{KN}	Nm	500	1000	1850	3150	5000	8000	13000	18000	24000
T_{KNmax}	Nm	1000	1800	3150	5300	8500	10500	21500	24000	40000
n_{max}	1/min	3500	3000	2500	2500	2300	2300	2000	1800	1400
L	mm	260	300	387,5	460,5	482,5	507,5	552,5	644	708
ØdG	pilot boring	mm	-	28	28	38	38	48	58	78
	max. boring	mm	50	65	75	100	100	110	145	190
ØDF	mm	72	92	108	140	140	158	206	235	270
ØDH	mm	110	135	160	200	200	225	290	320	370
IG1	mm	88	108	150	190	190	190	195	235	235
M_{A1} at $\mu=0,14$	Nm	35	69	120	295	295	295	580	580	1000
ØdM	Pilot boring	mm	-	28	38	38	48	58	80	90
	max. boring	mm	48	60	75	95	105	125	165	180
	max. boring at dyn. balancing	mm	42	54	70	85	95	115	155	170
ØdM2	mm	67	86	108	130	151	179	213	232	261
ØdM3	mm	86	108	129,5	159	184	220	255	282	312
ØdM4	mm	117	152	178	213	240	280	318	347	390
IM1	mm	172	192	237,5	270,5	292,5	317,5	357,5	409	473
IM3	mm	80	85	106	124,5	133,5	141	164	186	225
IM4	mm	5	5	6	6	6	6	6	8	8
M_{A2} at $\mu=0,14$	mm	12	25	45	80	80	125	125	125	190

For Information on Weight, Inertia and for Selection Criteria, please see p 2/2

Weight and Inertia

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ØA x b1 brake disc				* design, weight m, moment of inertia J						
Ø200x20	kg	11,5								
	kgm ²	0,034								
Ø250x20	kg	14,3	20,2							
	kgm ²	0,070	0,091							
Ø315x20	kg	18,7	24,8							
	kgm ²	0,159	0,181							
Ø355x20	kg		28,2							
	kgm ²		0,271							
Ø355x30	kg			52,0						
	kgm ²			0,437						
Ø400x30	kg			58,2	79,8					
	kgm ²			0,658	0,775					
Ø450x30	kg			65,9	87,4	104,4				
	kgm ²			1,007	1,119	1,232				
Ø500x30	kg			74,6	96,2	113,2	152,3			
	kgm ²			1,497	1,611	1,723	2,090			
Ø560x30	kg			86,3	107,8	125,0	164,0	223,3		
	kgm ²			2,316	2,424	2,545	2,910	3,686		
Ø630x30	kg				123,0	140,1	179,4	238,7	295,3	
	kgm ²				3,774	3,887	4,269	5,040	5,875	
Ø710x30	kg				142,9	159,9	199,3	258,6	315,1	415,1
	kgm ²				5,988	6,100	6,495	7,261	8,076	10,067
Ø800x30	kg							283,7	340,1	440,2
	kgm ²							10,830	11,628	13,621

Special version on request
 Other disc diameter on request
 All dimensions in mm
 * Weight and moment of inertia in reference to max. boring ØdG and ØdM
 Design modifications reserved

Information

- The coupling combination is designed for the drive with electric motors, medium impacts, irregular load such as conveyors, lifting systems, pumps, blowers etc.
- Finish bores according ISO tolerance H7 (DIN 7161 page 2). Other tolerances by arrangement.
- Keyway according DIN 6885 page 1. Keyway width tolerance P9.
- Axial securing of the coupling hub with threaded pin above keyway is possible on request.
- Balancing of the coupling components is possible on request.
Necessary order data: balance quality, operating speed, keyway arrangement.
- It is recommended to check the tightening torque of M_{A1} and M_{A2} regularly.
- Wearing parts: brake disc.
Grease filling should be checked according operating instructions, refill if necessary.
- Observe permitted shaft displacement, coupling alignment according operating instructions.

Coupling combination ZKES with brake disc offers following advantages

- Brake disc change possible without axial displacement of the motor.
- Compact design, high torque, simple assembly.
- Low-wear interlocking and small tooth clearance.
- High temperature resistance.

Determination of the coupling sizes

- Determine system torque and motor rated torque.
- Determine breaking torque and brake disc diameter.
- Coupling rated torque T_{KN} must be higher than system torque and motor rated torque.
- Available breaking torque must be smaller than T_{KNmax}.
- Examine if shaft diameter matches into hub connection.
- Check torque transmission of shaft connection and hub connection.
- Check max. permitted speed and max. permitted displacement.
- Check if flange diameter dM4 of selected coupling is suitable for the provided disc brake.