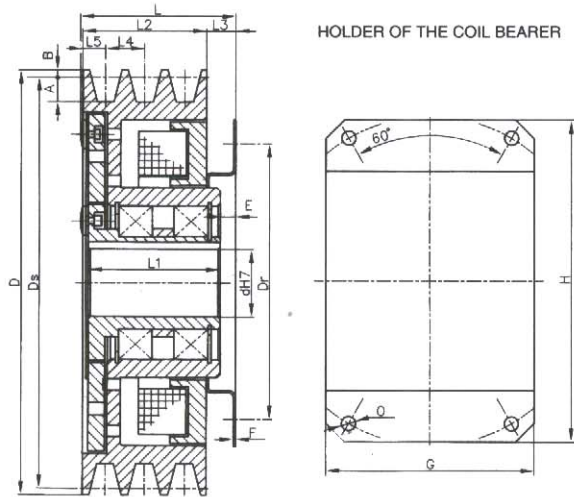




POHONY • DRIVES • ANTRIEBE



ELECTRICALLY ACTUATED DISC CLUTCHES WITH ONE FRICTION SURFACE EKA

CLUTCHES TRANSMIT TORQUE BY FRICTION BETWEEN ARMATURE PLATE AND MAGNETIC BODY WITHOUT AIR GAP, WITHOUT FRICTION LINING. SHIFTING IS VERY QUICK, DIMENSIONS ARE VERY ACCEPTABLE, ALTHOUGH BECAUSE OF ONE FRICTION AREA ONLY, ARE BIGGER THAN MULTI-PLATE CLUTCHES. THE REASON IS IN SPECIAL ARRANGEMENT OF ARMATURE PLATE AND MAGNETIC BODY WHICH ENSURES THAT MAGNETIC FLUX PASSES THROUGH FUNCTIONAL SURFACE FOUR TIMES. CLUTCHES ARE SUITABLE FOR SETS WHICH MUST RUN WHEN SHIFTED OUT FOR LONGER TIME FOR INSTANCE DRIVING OF COOLING COMPRESSORS, PACKING AND FOOD MACHINES, VENTILATORS AND SO ON. CLUTCHES ARE ESPECIALLY USED ON PLACES WHERE ADJUSTING AFTER ASSEMBLING IS NOT POSSIBLE.

MAIN TECHNICAL DATA AND DIMENSIONS (mm)

Size		1.25	2.5	4	6.3	10
Dimensions						
D		151.6	171.6	193.4	214.4	241.4
D _s		145	165	185	206	230
B		3.3	3.3	4.2	4.2	5.7
A		11	11	14	14	19
L ₁		50	57	70	76	93
L ₁ ±0.1		41	47	59	65	81
L ₂		30	30	57	57	76
L ₃		7	9	12	12	16
L ₄		15	15	19	19	25.5
L ₅		7.5	7.5	9.5	9.5	13
E		5	5	5	5	5
D ₇ ±0.1		122	138	150	172	190
F		1.5	1.5	1.5	1.5	1.5
G		79	90	100	114	130
H		116	152	149	164	184
O		4.5	5.5	6.5	8.4	10.5
dH7		20	25	30	35	40
		18	22	28	30	35
		15	20	25	28	30
		-	18	20	25	28
Torque moment						
- dynamic	Nm	12.5	25	40	63	100
- static	Nm	14.5	30	48	73	115
Coil value by 20°C						
Voltage	V	24	24	24	24	24
Current	A	0.8	0.93	1.04	1.3	1.58
Input	W	19.2	22.4	25	31.4	38
Number and shape of grooves						
Maximal revolution	min ⁻¹	2x13	2x13	3x17	3x17	3x22
		3000	3000	3000	2500	2000
Moment of inertia J						
- carrier	kgm ²	9.10 ⁻⁴	17.10 ⁻⁴	47.10 ⁻⁴	60.10 ⁻⁴	100.10 ⁻⁴
- pulley	kgm ²	35.10 ⁻⁴	57.10 ⁻⁴	157.10 ⁻⁴	240.10 ⁻⁴	600.10 ⁻⁴
Weight						
	kg	3.2	4.8	6.5	10.2	15.5

Clutches EKA are pulley type with outlet of exciting coil on terminal block which does not rotate. Current supply is provided to the outlets without collector rings. Design is made for dry surroundings. Driving part is formed by V-belt pulley connected with armature plate which rotates on rolling elements bearings. Driven part consists of hub only which bears axially resiliently fixed armature plate. Exciting coil is placed on carrier. Coil carrier is fixed to non-rotating detail or machine frame. After exciting current is switched in, magnetic body is magnetized and attracts armature plate. Friction between these parts transmits torque. After the exciting current is switched off, flat springs draw away armature plate into starting position and transmission of torque stops. Driving and driven parts can be replaced. Magnetic body with pulley has considerably higher moment of inertia in comparison with armature plate. Starting time, stopping time and wear will be someone bigger if the magnetic body will be used as driven part. Coil carrier is placed in magnetic body with minimal clearance to minimize losses. Therefore it is necessary centering the carrier with accuracy according to instructions in technical conditions.

ADVANTAGE OF EKA CLUTCHES:

- can be switched in by non-synchronous revolutions of drive and driven part similarly as all other friction clutches
- they have practically no residual moment, in switch-off state no wear and heating occurs (residual moment is only from resistance of ball bearings), clutches can run in switch-off state for unlimited period of time
- no need to adjust them
- no need in maintenance and inspection
- simple assembling

ORDERING DATA:

- size of clutch - number of pieces - clutch bore and keyslot - voltage, - climatic conditions