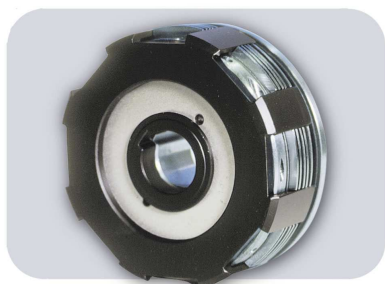
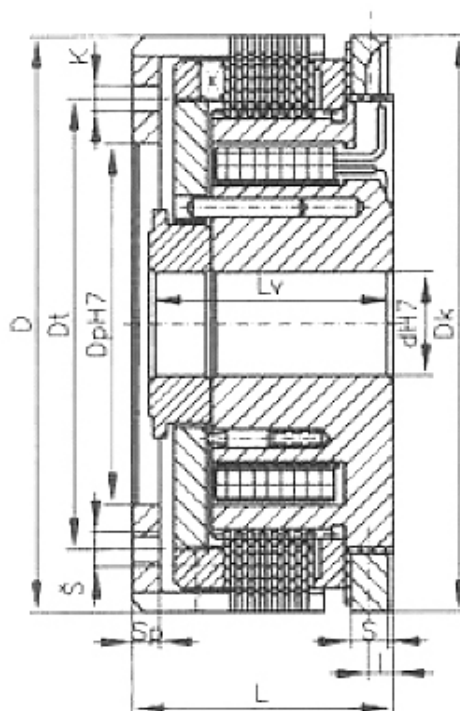


Clutch ELS (multi-plate)



Electrically shifted multi-plate couplings transmit the nominal torque by the multi-plate friction, that are gripped and released by the operating of the electromagnet. The couplings connect the driving machine part with the driven part. Electrically shifted multi-plate couplings regarding the size of transmitted nominal torque have very small dimensions. They are characterised by the fast grow of the torque to nominal value and the small rest moment after the throwing out. Electrically shifted multi-plate couplings, therefore, fast react to the impulse and so they increase the accuracy and output of the machines - without any transmission elements. They decrease the dimensions and mass of the driving units. The shell with the flange is fast connected with the driven machine part. Together with the external multi-plates it creates the driven part of the coupling. The magnet body, in which gearing the internal multi-plates engage, creates the driving part. The internal multi-plates are covered by the layer of the friction material

according to the kind of the operation (lubricated or dry), that extends their service life and increases the friction. The external multi-plates drive by their steps the coupling shell. The anchor plate is connected with the magnet body by the driving pins. If it is into the exciting coil taken in the direct current, the anchor plate is attracted to the magnet body. If the brake is thrown out, the plate is forced off by the spring loaded forced off pins on the flange of the distance bush. The adjusting nut is screwed in on the anchor plate, so that at the coupling throwing in it grips the multi-plates set. By the nut rotary the width of the air gap between the magnet body and anchor plate is possible to regulate. The width of the air gap influences the size of the transmitted torque. To its accurate adjustment the set of the feeler gauges attends that are fitted into to the nut recess. The collector rings attend to the exciting current of the brushes supply - for lubricated medium - bronze and for dry medium - cooper-graphite. The distance bush - it limits the extreme position of the anchor. The exciting coil is casted in the magnet body. By the ELS couplings one outlet is connected to the collector rings and second outlet to the magnet body.



Clutch ELS

Size	0,6	1,2	2,5	4	6,3	10	16	25	40	63
Dimensions										
D	90	100	110	120	132	147	162	182	202	235
Sp	5	5	5	6	7	7	7	8	9	10
DpH7	60 / 50 / 45	70 / 60 / 50	70 / 60 / 50	80 / 70 / 60 / 50	90 / 80 / 70 / 60	100 / 90 / 80 / 70	110 / 100 / 90 / 80	120 / 110 / 100 / 90	140 / 120 / 110 / 100	160 / 140 / 120 / 110
Dt	70	80	85	95	105	115	130	150	165	190
* x Š	4xM6	4xM6	4xM6	6xM6	6xM8	6xM8	6xM8	6xM10	6xM10	6xM12
* x diameter K	2x6	2x6	2x6	3x6	3x8	3x8	3x8	3x10	3x10	3x12
dH7	17 / 15	20 / 18 / 15	25 / 22 / 20 / 18	30 / 28 / 25 / 20	35 / 30 / 28 / 25	40 / 35 / 30 / 28	45 / 40 / 35 / 30	55 / 50 / 45 / 40	60 / 55 / 50 / 45	70 / 60 / 55 / 50
Dk	90	100	110	120	132	145	160	180	200	230
I	5	5	5	5	5	5	5	5,5	5,5	5,5
Lv -0,1	41	42	45	48	50	53	57	63	70	80
L	43	45	48	52	55	58	62	68	76	86
S	7	7	7	7	7	7	7	8	8	8
*) number of pcs										
Main Technical Data										
Transmitted torque - dynamic (nominal) (Nm)	6,3	12	25	40	63	100	160	250	400	630
Transmitted torque - static (informative) (Nm)	9	18	35,5	56	90	140	224	355	560	900
Field coil - voltage (V)	24	24	24	24	24	24	24	24	24	24
Field coil - current at 20°C (A)	0,75	1,05	1,2	1,25	1,4	1,65	1,85	2,5	2,45	2,9
Field coil - input at 20°C (W)	18	25,2	28,8	30	33,6	39,6	44,4	60	59	69,6
Air gap (mm)	0,3	0,3	0,3	0,3	0,3	0,35	0,4	0,4	0,4	0,5
Tolerance of air gap (mm)	-0,1	-0,1	-0,1	-0,1	-0,1	-0,15	-0,15	-0,15	-0,15	-0,15
Max. speed (rpm)	3000	3000	3000	3000	3000	3000	2500	2200	2000	1750
Moment of inertia "J" - inner parts ELS	0,0009	0,0015	0,0025	0,004	0,007	0,01	0,017	0,031	0,06	0,12
Moment of inertia "J" - outer parts ELS (kgm2)	0,0004	0,0007	0,0012	0,002	0,0025	0,0045	0,008	0,015	0,022	0,042
Weight *) (kg)	1,4	1,8	2,5	3,2	3,95	5,25	6,9	9,7	13	20
*) Data are valid for min. bore of cover DpH7										