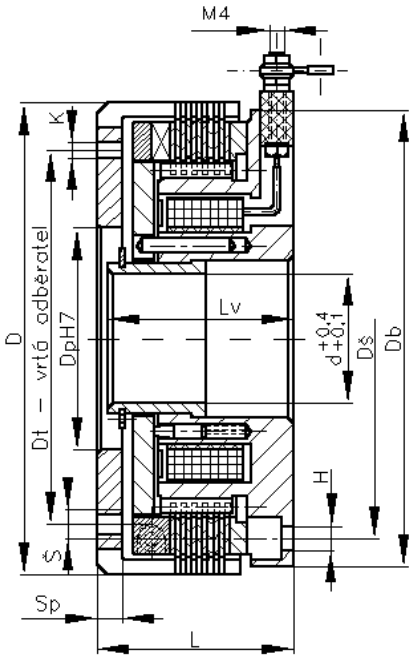
Brake ELB
(multi-plate)

Electrically actuated multi-plate brakes transmit the nominal torque by the multi-plates friction that are gripped and released by the operating of electric magnet. The brakes stop the rotary parts of the machine. Electrically actuated multi-plate brakes regarding to the size of transmitted torque has 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 brakes, 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 drive machine part. Together with the external multi-plates it creates the driven part of the brake. The magnet body, in which gearing the internal multi-plates engage, is fastened to the non-rotary machine 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 brake 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 brake 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 distance bush - it limits the extreme position of the anchor. The exciting coil is casted in the magnet body. To the exciting current supply the terminal board on the magnet body attends.



Brake ELB

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
Db	90	100	110	120	130	145	160	180	200	235
d +0,4 +0,1	18	22	28	32	36	42	46	56	63	73
Lv	41	43	46	50	52	55	59	64	71	80
Dš	76	85	95	102	112	125	142	160	180	210
L	43	45	48	52	55	58	62	68	76	86
* x H	4x6,4	4x6,4	4x6,4	6x6,4	6x8,4	6x8,4	6x8,4	6x10,5	6x10,5	6x13
*) numer 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℃ (A)	0,75	1,05	1,2	1,25	1,4	1,65	1,85	2,5	2,45	2,9
Field coil - power input at 20℃ (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
Air gap tolerance (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" - of outer parts (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	2,3	3	3,7	4,9	6,4	8,7	12,2	19,3
*) The stated weight is valid for min. bore of cover DpH7										

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