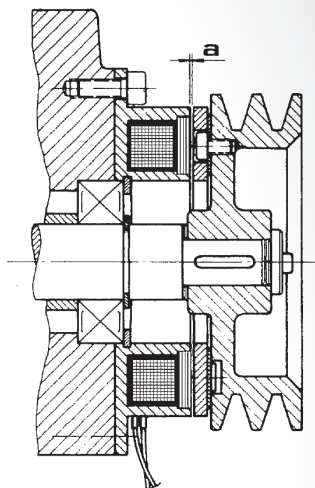


ELECTROMAGNETIC BRAKE

ASSEMBLY EXAMPLES

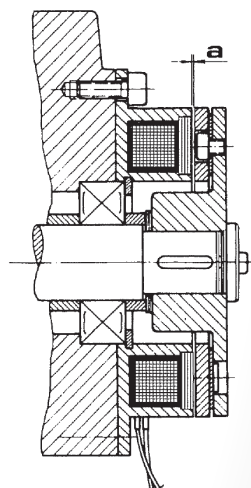
Construction 1.1

Adaptation to pulley



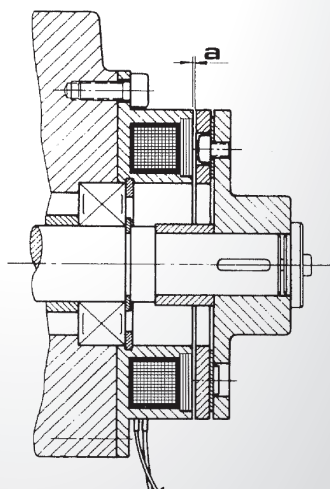
Construction 1.2

Adaptation to shaft



Construction 1.3

Adaptation to shaft



SINGULAR PLANE SINGLE-DISK

Type FAE



Description

The electromagnetic brake EIDE type FAE is mainly composed of an induction core, with the corresponding built-in coil and friction material, and of the induced unit, composed of the induced disc or plate itself with a membrane-spring (in **construction 1.1** - to be mounted directly onto pulley, chain pinion, etc.) and of the induced support bushing (in **constructions 1.2** and **1.3** - to be mounted onto the shaft on which we want to exert the braking action), the induction core is centered with regard to the shaft and is adjusted to the bedframe of the machine. The dimension "a" -which is given in the table- will have to be taken into account during the mounting procedure.

When applying voltage (standardized at 24 V.D.C.) to the coil, a magnetic field is built up which attracts the induced disc or plate, causing thus a deformation within the membrane-spring, which is compensated by gap "a", leading to the friction between them that causes the breaking.

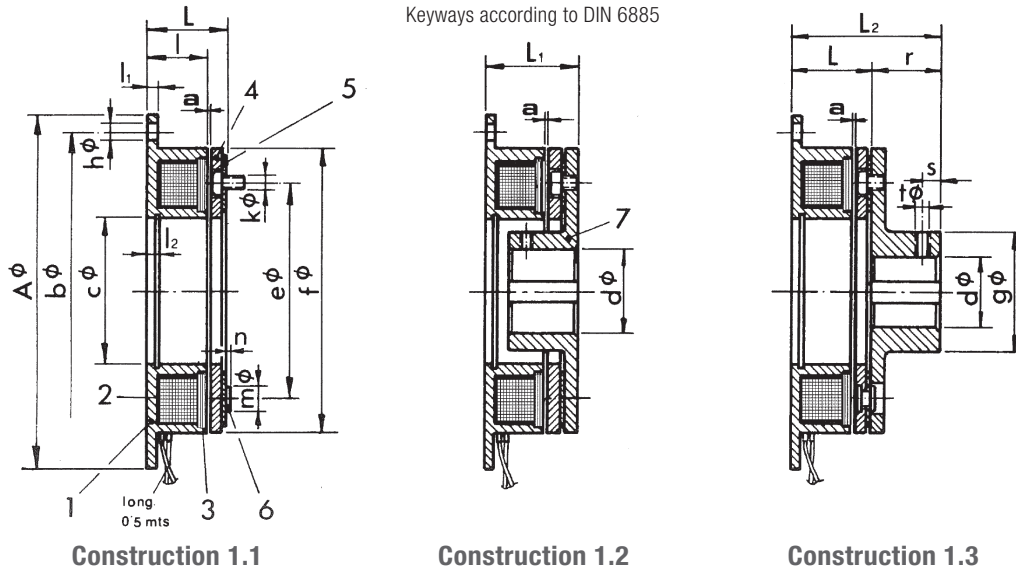
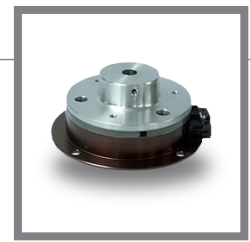
When cutting out the voltage, part 5 recovers its original position, whereby the braking action is stopped without residual torque.

Care must be taken so that both friction surfaces are free from grease or oils, as their presence reduces the braking torque. These units require a certain number of operations before the torque reaches its nominal value.

In **construction 1.1**, parts 4-5 have to be mounted centered only by means of the screws themselves. The centering procedure can not be carried out by restraint. The pulley, pinion or bushing to which it is coupled has to be provided with some bores which must be approx. 30% bigger than the rivet heads 6 (their dimensions are shown in the table) to hide them.

ELECTROMAGNETIC BRAKE - SINGULAR PLANE SINGLE-DISK Type FAE

Technical data and dimensions



SIZE		0,15	0,25	0,75	1,5	3	6	12	20	45	70
Max. torque	da. Nm.	0,15	0,25	0,75	1,5	3	6	12	20	45	70
Max. revolutions per minute	n	10.000	8.750	7.000	5.500	4.400	3.500	2.750	2.200	1.750	1.400
Coil consumption (20° C)	Watts	8	10	12	15	22	28	38	48	60	70
Mass	Constr. 1.1	0,12	0,20	0,30	0,50	1	1,70	3,20	6,30	11,70	19,30
	Constr. 1.2 - 1.3	0,14	0,23	0,40	0,70	1,30	2,40	4,70	9,30	17,20	28,50
J	Constr. 1.1	0,043	0,091	0,37	1,10	3,75	11,70	40,80	118	353	1012
	Constr. 1.2 - 1.3	0,061	0,137	0,58	1,63	5,67	16,70	56	171	475	1410
Airgap - dimension "a"	m.m.	0,15	0,2	0,2	0,2	0,3	0,3	0,3	0,5	0,5	0,8
	A	54	65	80	100	125	150	190	230	290	355
	L	22,8	25,2	22	24,7	28	31	35	41,5	48	60
	L ₁	25,4	28,2	25,5	28,7	33	37	42	50,5	59	73
	L ₂	34,8	37,2	37	44,7	53	61	73	89,5	103	124
	b	47	58	72	90	112	137	175	215	270	335
	c	19	26	35	42	52	62	80	100	125	160
	d*	-	-	-	10	10	14	19	24	32	38
	d max.	10	15	15	25	30	40	50	70	80	120
	e	30	38	46	60	76	95	120	158	210	250
	f	40	50	63	80	100	125	160	200	250	315
	g	17	24	27	37	42	52	65	83	105	146
	h	4 x 3,4	4 x 3,4	4 x 4,5	4 x 5,5	4 x 6,5	4 x 6,5	4 x 9	4 x 9	4 x 11	8 x 11
	k	3 x M3	3 x M3	3 x M3	3 x M4	3 x M5	3 x M6	3 x M8	3 x M10	4 x M12	4 x M16
	l	20	22	18	20	22	24	26	30	35	44
	l ₁	2	2	2,5	2,5	3	4	5	5	6	8
	l ₂	3	3,2	3,5	4,3	5	5,5	6	7	8	9
	m	3 x 5	3 x 5	3 x 6	3 x 7	3 x 9	3 x 10	3 x 13	3 x 16	4 x 18	4 x 24
	n	1,5	1,5	1,5	1,7	2,1	2,5	3	6,5	8	10
	r	12	12	15	20	25	30	38	48	55	64
	s	5	5	5	6	6	10	10	15	20	25
	t	M4	M4	M4	M5	M5	M6	M8	M8	M10	M12

*In all sizes, our brakes will be delivered with dimension "d" which is given in the table and without keynut.