OPTIONAL ATTACHMENTS

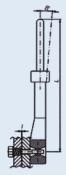
FIG. 1



Dust Seal Fig.1

It prevents penetration of dust or other fragments into the braking area. The dust seal is pulled over the brake and inserted into the grooves provided.

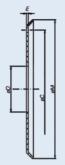




Hand Release Fig. 2

The hand release, releases the brake manually and it automatically goes back into its original position after operating.

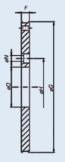




Friction Plate Fig. 3

We recommended to use the friction plate when a plain machined counter face is available but cannot be used as a friction surface. The friction plate can also be combined with the dust seal.





Mounting Flange Fig. 4

We recommend to use the mounting flange when no suitable friction surface is available. It can also be combined with the dust seal.

Brake Model	КО	K1	K2	К3	K4	K5	К6	K7-K7/D	K8-K8/D	K9-K9/D
А		80	94	103	120	145	156	184	208	238
В		20	22	25	25	30	33	38	35	20-10
С		72	90	103	112	132	145	170	196	230
D		30	40	40	60	120	130	154	180	205
Е		01	1.5	1.5	1.5	1.2	1.5	1.5	1.5	1.5
F		06	07	07	09	09	11	11	11	11
G		84	104	114	124	148	160	189	218	248
Н		30	45	50	56	62	74	84	100	120
Ī		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
L		100	115	135	143	185	185	200	225	280
M		88	108	119	130	150	165	195	223	253
N		4.5	5.5	5.5	6.5	6.5	8.5	8.5	8.5	10.5
0		20	30	35	40	45	55	65	75	90

ORDERING

While ordering please specify. 1) Model 2) Operating Voltage 3) Shaft diameter 4) Optional Attachments Desired.

ARRKAY POWER TRANSMISSION



SHOWROOM

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www.arrkay.in



ELECTROMAGNETIC SPRING APPLIED FAIL SAFE BRAKE D.C. BRAKE TYPE - K

SALIENT FEATURES

- Strong Structure
- Quiet Operation (<70 dBA)
- Simple Assembly and Installation
- ► Good Heat Dissipation
- ► Adjustable Torque
- ▶ Optional Manual release and dust seal
- ▶ Epoxy Resin Bonded Vibration Proof coil
- ► Class "F" Insulation
- Metal part rust protected
- Options of friction plate Et mounting flange to facillitate Installation
- ▶ IP 64 Protection against dust and water sprinklings

ABOUT US

We, are ARRKAY POWER TRANSMISSION bear a significant name in the field as a highly experienced manufacturer of quality spares. We started off with a full fledged unit equipped with the most modern manufacturing facilities along with an excellent and proven technical expertise at Coimbatore. Through the years, our success has earned the goodwill of numerous customers all over the country on account of our uncompromising quality, unstinted commitment and highly realiable timely service. Besides we are also recognised for servicing of Electro magnetic Spring Applied Fail Safe Brake D.C. Brake Type - K.

QUALITY

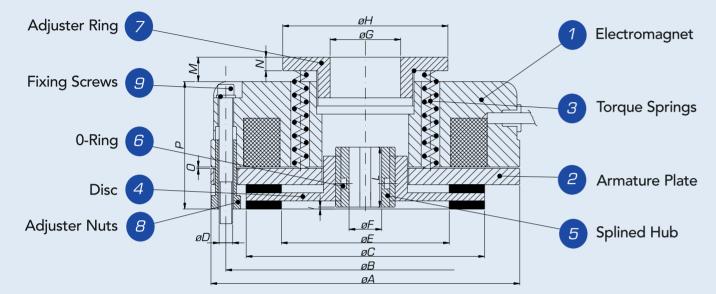
We have never compromised on quality. Our wish is to see that our customers grow with the help of our innovative products. Developed techniques, proven expertise, precision control and skilled work force from our basic foundations.

VISION

The guiding philosophy at ARRKAY POWER TRANSMISSION is to make ready made solutions available to a customer's demand and merely not products alone.

OPERATION

The Brake is designed to ensure safety due to the Braking torque being always applied by means of pressure springs when no voltage is applied to the brake and it is thus normally in ON condition. Upon Energisation of the Electromagnet (1) by applying a D.C. Voltage the Armature Plate (2) is pulled towards the Electromagnet thus loading the pressure springs and allowing the Disc (4) which is axially movable on the Hub (5) to rotate freely. When the current is stopped the pressure springs push the Armature Plate towards the disc which in turn is pressed against the mounting flange or friction plate or the motor cover itself which is stationery and thus the Rotational movement is stopped due to friction, thus Braking the motor shaft.



Brake Model	K1	K2	К3	K4	K5	K6	K7	K7/D	K8	K8/D	К9	K9/D
Static Braking Torque [Nm]	5.0	10	12	20	40	60	100	160	150	300	250	450
Dynamic Braking Torque [Nm]	3.6	6.4	9.6	12.8	28	48	64	128	120	240	160	320
Max Speed of the Motor [rpm]	3000	3000	3000	3000	3000	3000	3000	3000	1500	1500	1500	1500
Input Power [W]	15	20	25	30	45	50	55	55	60	60	65	65
Max Noise [dB-A]	68	69	68	69	70	70	70	70	70	69	69	69
Weight [kg.]	1.1	1.85	2.55	2.84	4.8	7	12	15	14.3	18	23	28
A	84	104	114	124	148	159	189	189	218	218	248	248
В	72	90	103	112	132	145	170	170	196	196	230	230
С	61	77	88	98	119	128	151	151	176	176	204	204
D	3XM4	3XM5	3XM5	3XM6	3XM6	3XM8	3XM8	3XM8	6XM10	6XM10	6XM10	6XM10
E	35	44	62	69	79	80	90	90	103	103	114	114
F	10-11	11-14	11-15	14-25	24-25	25-30	25-30	25 H40	24-34	34 H60	44-45	44-45
	12	15			28	34	34	34 H60		48	48	48
G	20	26	26	42	60	60	60	60	60	60	60	60
Н	50	61	61	79	104	104	104	104	104	104	104	104
I	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
L	18	20	20	20	25	30	30	60	40	60	40	60
M	9	9	9	9	10	10	10	10	10	10	10	10
N	4	4	4	5.5	8	8	8	8	8	8	8	8
0	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
P	38.5	41.5	47	46.5	64	69.5	79	101.5	78	98	80	105

1Nm = 0.102 kgm = 0.737 lb.ft.

Standard voltage 24 V.D.C., 96 V.D.C., 190 V.D.C. Other voltages on request.

Keyways to IS: 2048. Recommended ISO shaft tolerance.

ASSEMBLY

The preceding drawing shows the assembly of the Brake Type `K' Place the Armature Plate(2) and the Electromagnet (1) in which the torque springs should be inserted. Fix the fixing screws (9) on the Mounting Flange. The Mounting Flange should be made of steel or cast iron and have a flat surface machined with 1.6 Ra. Roughness. If the Brake is supplied preassembled, remove the air gap adjusting device after mounting the brake. The braking torque can be adjusted by operating the adjusting ring (7).

Note: Please ask for detailed literature on mounting of the brake, for Air gap adjustments, Braking torque adjustment etc.

SELECTION OF SUITABLE MODEL

The Brakes are rated by torque and selection of the suitable model can be made by calculating the required torque rating of the Brake and then matching it with the static torque rating. Although the calculation of torque is based on various factors an approximate evaluation can be made using the following formula.

Torque (NM) = $[9550 \times (K.W. R.P.M.)] \times Safety factor (sf)$ where K.W. = Kilowatts of Motor, R.P.M. = Speed at Brake location. (sf) = Safety factor depending on type of prime mover and load. For Electric Motor - 2 to 3

Diesel Engine - 4 to 5

Compressor - 5 to 6

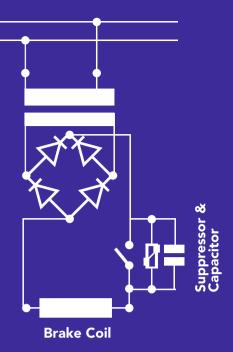
However we recommend that you may please kindly contact us for literature on detailed calculation for selection of Brake.

ELECTRICAL CONNECTION

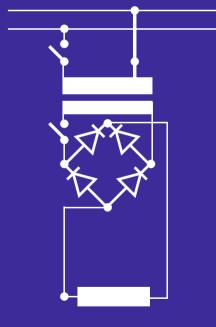
Shown below are the Electrical connection for the brake coil which are operated by D.C. supply. Both A.C. side and D.C. side switching is shown. Switching on D.C. side at nominal airgap and coil at nominal temperature enables short engagement and disengagement time. D.C. side switching requires provision of universal spark suppressor and capacitor to protect coil and switches against damage. Engagement / disengagement time is a function of nominal release distance (airgap).

We offer range of rectifiers for use with our Brakes which ensure the performance of the Brake is optimal.

DC SIDE SWITCHING



AC SIDE SWITCHING



Brake Coil



All Dimensions in mm.

The Brake shall operate optimally as per the above data when operating at room temperature. In case of greasy places or extreme temperature please contact our technical department. When operating at low temperature or in damp places its necessary to use covers or guards to avoid the attachment of the friction material on the braking surface when the brake remains without operating for a long period.