

INTRODUCTION

SOC make Electromagnetic brakes are used in conjunction with other equipments where smooth, rapid and dependable stopping is required. Electromagnetic DBM brakes are electrically released & spring set. When the coil is energized the armature are attracted together to compress the torque spring and move the shoes away from the wheel, thus releasing the brake.

De-energizing the coil allows the torque spring to separate the armatures and press the shoes against the wheel setting the brakes thus making it fail safe in the event of power failure.

FEATURES

COIL

The encapsulated thermal class 'F' coil is in a sheet steel housing for complete environmental protection.

MAGNET

The two identical magnetic steel armature offers a powerful short stroke magnet system.

SHOE LINING

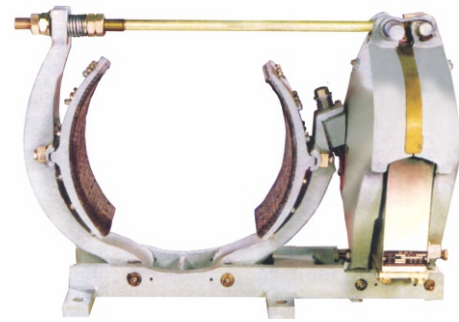
Asbestos base shoe linings are selected to offer a high co-efficient of friction and low wear. The shoe linings are firmly riveted to the shoes and are easy to replace.

SHOE ADJUSTMENT

The brake shoes are so arranged that the drum is aligned with ease and simplicity while installation

TORQUE SETTLING

The braking torque can be adjusted step less in the specified range by adjusting the nut. The nut is first turned clockwise to positive stop and then turned anti-clockwise to get the desired braking torque.

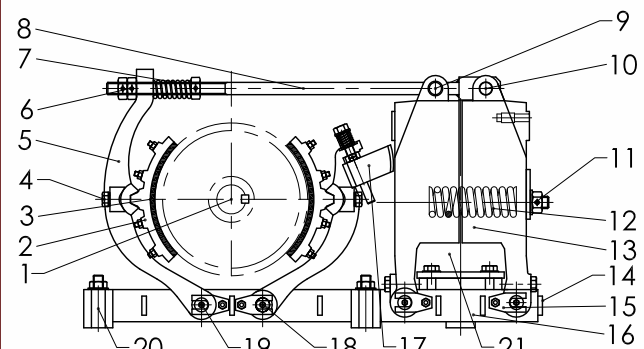


The brake torque must be $\geq$ than motor full load as referred with drum. Formula as below:

$$T = \text{Torque in Kgm} = \frac{716 \times \text{Hp}}{\text{rpm}}$$

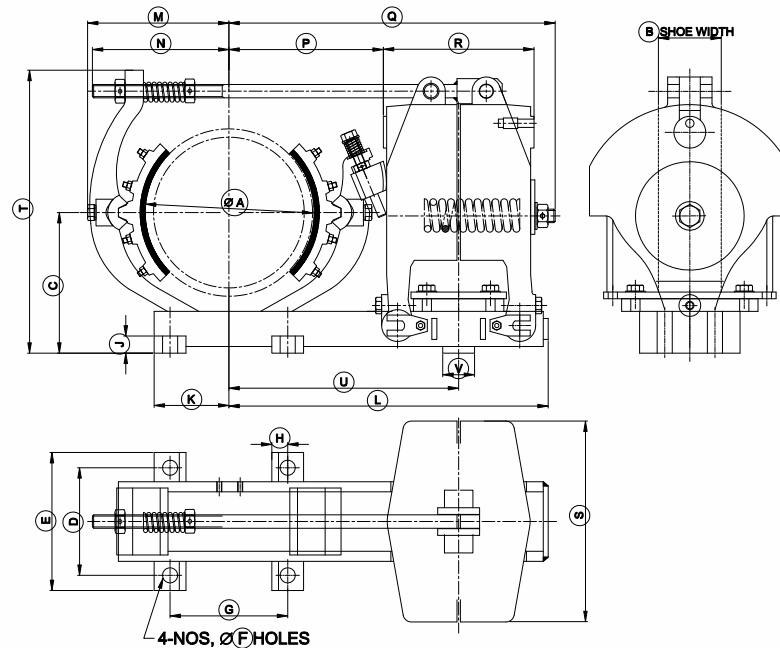
$$T = \text{Torque in Nm} = \frac{9552 \times \text{Kw}}{\text{rpm}}$$

Where Hp/Kw = motor output & rpm = Rev/minute



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|------------------------|----------------------------------|
| 1. BRAKE DRUM | 12. TORQUE CONTROL SPRING |
| 2. BRAKE SHOE | 13. MAGNET BODY |
| 3. BRAKE LINER | 14. ELECTRIC SUPPLY |
| 4. SHOE HOLDER | 15. HINGE PIN RETAINERS |
| 5. MAIN ARM | 16. BRAKE MOUNTING BASE |
| 6. NUT FOR TENSION ROD | 17. SHOE GAP SETTING ARRANGEMENT |
| 7. TENSION ROD | 18. HINGE PINS |
| 8. TENSION ROD | 19. GREASE NIPPLE |
| 9. LIFTING HOOK | 20. FOUNDATION HOLES |
| 10. HINGE PIN | 21. MAGNET COIL HOUSING |
| 11. TORQUE SETTING NUT | |

DC ELECTRO MAGNETIC BRAKES - DBM SERIES



BRAKE DRUM	METRIC (MM) SERIES						
BRAKE DRUM DIAMETER	160-mm	200-mm	250-mm	300-mm	400-mm	500-mm	600-mm
CODE NO.	DBM-160	DBM-200	DBM-250	DBM-300	DBM-400	DBM-500	DBM-600
BRAKING TORQUE (KGM)	10	13.8	27.7	76	138.3	277	555.3
WEIGHT KG.	59	65	105	190	300	600	875
A	160	200	250	300	400	500	600
B	60	80	89	140	165	216	279
C	136	170	212.7	240	320	336.5	403.2
D	86	60	158.7	80	90	330.2	406.2
E	126	121	196.8	165	184	400	482.6
F	14	17.4	17.5	22.2	25	27	33.3
G	130	350	203.2	500	340	469.9	596.9
H	12.5	19	19	25	25	31.7	38.1
J	36	50	19	68	57	33.3	33.3
K	85.3	194	130.2	275	195	266.7	336.5
L	267.3	406	422.3	514	538	642	740
M	129.7	166	203.2	239	311	377	469
N	94.9	164	200	238	305	360	418.2
P	136.8	209	219.1	284	315	386.4	448.2
Q	285.4	417	431.8	524	556	683	781
R	121.6	181	187.3	216	216	257.2	289
S	166.4	242	273.1	331	381	457.2	520.7
T	254.4	338	400	480	590	650.9	771.5
U	-	298.4	338	390	419	430.2	492.9
V	25	38	38	38	38	38	27

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