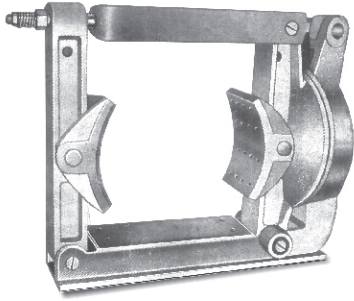


D.C. ELECTRO- MAGNETIC BRAKES Types DM



INTRODUCTION

Speed-O-Control Mill Duty D.C. Electro-Magnetic Brakes are suitable for 220 Volts D.C. supply and are available for a drum Diameters from 100mm to 800mm D.C. Electro-Magnetic brakes are used to retard or to stop moving loads or rotating masses , to prevent damage to men and equipments.

FEATURES

1. Robust construction and simple design
2. Reliable braking action
3. Efficient transmission of forces.
4. Brakes shoes replacement without dismounting.
5. Ease of maintenance
6. Ease of torque adjustment.

AIR GAP

The brake is released by powerful , short stroke electromagnet. The gap between the coil and the armature is to be maintained to about 0.3 mm. Brake coil is encapsulated with epoxy resin and is with 'Class F ' insulation .

TECHNICAL DATA

Class of insulation of coil-'F'
 Maximum operative voltage-660V
 Rated supply-220V , D. C.

SECTION OF BRAKE SIZE

Brake torque of 180 to 250% of motor rated torque is sufficient for normal applications like cranes, hoists, and other material handling equipments. For Ct and LT drives, braking torque of 80 to 150% of motor rated torque will ensure braking without excessive noise and mechanical jerk.

Rated motor torque is given by

$$M_b = 716.2 \times \text{HP} / \text{RPM in kg-m , OR,} \\ = 9.55 \times \text{kW} / \text{RPM in Newton-m.}$$

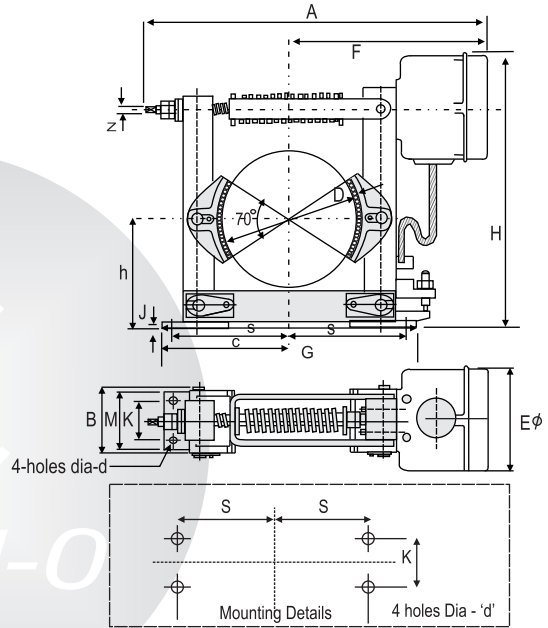
Where , kW or HP is motor rated power and RPM is motor rated speed in revolutions per minute.

Note :

Dimensions h, k, s are maintained as shown

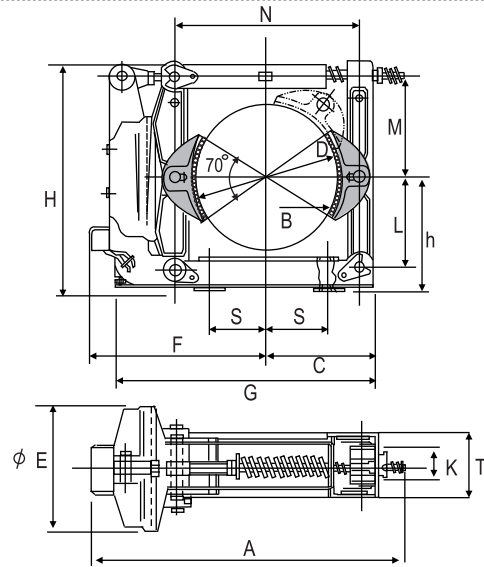
Other dimensions are for guidance only.

* Approximate weight



DM-100 to DM-315

BRAKE SIZE	DRUM DIA. mm	Brake Torque kg-m	A	B	C	d	ØE	F	G	h	H	J	K	L	M	N	s	Wt. kg	
DM 100	100	1.6	391		125		145	240	260	100	272		40	4	65	8x8	110	16	
DM 150	150	10.0		40	70	180	13	190	305	330	150	385	6	50	6	80	10x10	155	36
DM 160	160	10.0																	
DM 200	200	12.5	571	90	190	17	190	335	400	170	450	8	60	6	90	11x11	185	41	
DM 250	250	35	600	110	245	21	245	430	500	200	510	10	70	8	105	12x12	220	70	
DM 300	300	50																	
DM 315	315	50	753	140	285	21	245	465	590	240	602	12	80	8	120	14x14	265	94	



DM-400 to DM-800

BRAKE SIZE	DRUM DIA. mm	Brake Torque kg-m	A	B	C	d	ØE	F	G	h	H	J	K	L	M	N	s	Wt. kg
DM 400	400	120	948	180	300	25	355	504	780	320	660	90	90	250	300	520	340	240
DM 500	500	190	1111	200	375	25	450	575	915	400	823	115	100	315	375	640	375	364
DM 600	600	355	1312	240	450	38	522	675	1080	475	950	140	126	380	420	780	450	600
DM 700	700	575	1512	280	505	38	600	770	1215	550	1108	180	150	430	495	890	505	960
DM 800	800	910	1628	320	585	38	688	853	1420	600	1255	200	180	480	580	1020	585	1360

RECTIFIER CONTROL PANEL FOR D. C. BRAKES

INTRODUCTION

The coils of dc electromagnetic brakes need dc supply for operation. DC rectifier panel converts ac mains supply to dc output supply. Typical application examples are E.O.T. Cranes, conveyors, rolling mills etc.

Rectifier panels are supplied with different combinations and can be offered for feed single or multiple brake coils.

THE STANDARD PANELS

The standard panels can be offered for
 Single brake operated individually, or
 Two brakes operated individually, or,
 Two brakes operated simultaneously.

CONSTRUCTION

Brake rectifier panel is a fabricated sheet steel enclosure and has two sections, the top compartment is for resistor assembly and bottom for controlling switch gear items like contactors, rectifier bridges etc. The unit designed for floor mounting. High quality rectifier has sufficient capacity to sustain over-voltage and current transients. Wound resistors have Nichrome/ Eureka wires. The Contactors and timers are of suitable ratings and are from reputed manufacturers.

DEGREE OF PROTECTION

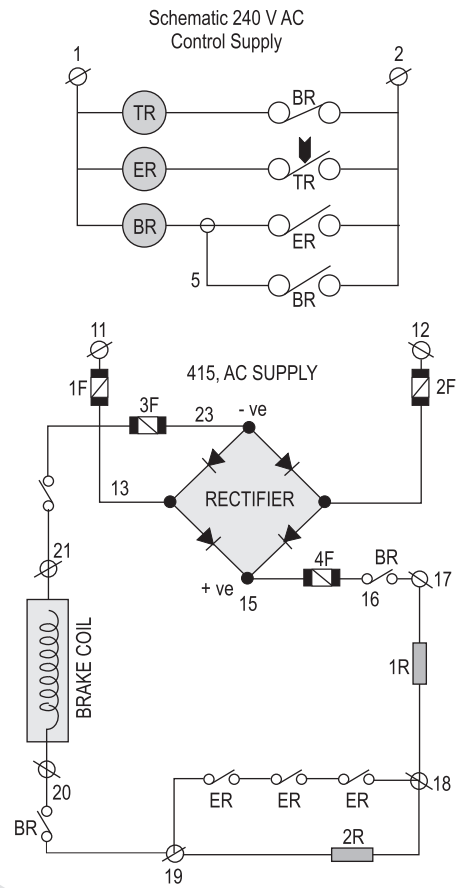
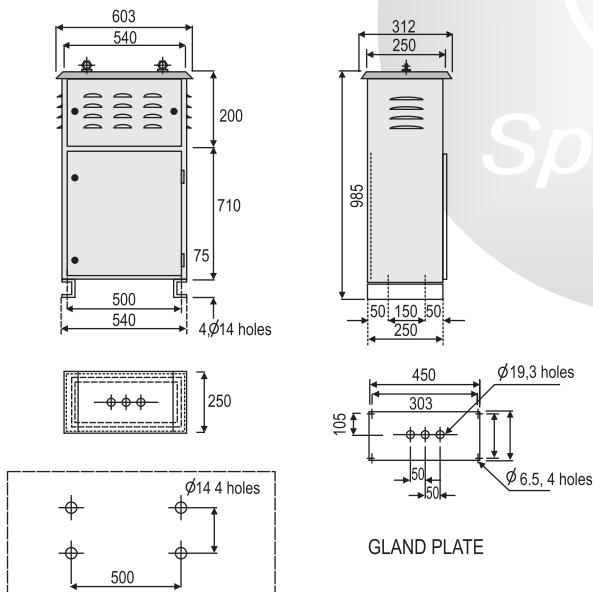
The standard enclosure for rectifier unit conforms to IP-54 degree of protection as per IS:13947 (Part I)-1993. The resistor unit is IP-23.

FINISHING

Sheet steel enclosures are given metal treatment process for de-rusting, de-greasing, phosphating prior to two coats of synthetic enamel paint.

VOLTAGE RATING

Input - 415V ac Output -220V dc (With economic resistor)
 Control voltage -110V, 220V, 240V, 415V ac.



Symbol	Description	Qty.
Rect.	Selenium Rectifier Full Wave Bridge	1
1F -- 4F	H.R.C. Fuses N.S. 15H + N5 2/30	4
TR	Timer (Off delay)	1
ER	Contactors	1
BR	Contactors	1
1R -- 2R	Resistor	1

- Enclosure - IP - 54 for Rectifier Panel
IP - 23 for Resistor
- Finishing Anti corrosive treatment
Synthetic Enamel Light Gray
Shade 631, as per IS : 5
- Removable Cable Entry Plate is at bottom.