

MAGNECLUTCH Model Name Convention:



Magnetic particle clutches and brakes

First number = rated torque
 MC = air convection cooled
 MCA = forced air cooled
 MCW = water cooled

90 = 90 VDC coil
 B = base mount
 C = c face mount
 F = flange mount
 20 = design number

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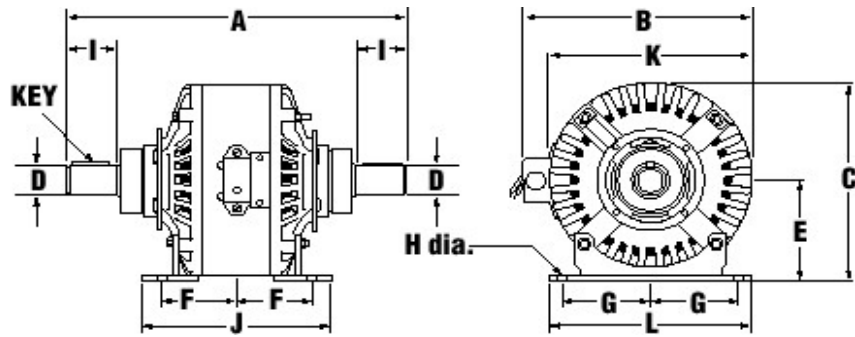
MAGNECLUTCH Specifications

Rated Torque (lb ft)	Model	Mounting	Cooling	Heat Dissipation @ 1800 rpm (3)		Max Operating Speed (rpm) (4)	Non-Excited Drag Torque (lb ft)	Inertia (WK ²) Rotating Members (lb ft ²)		Weight (lbs)	Coil Data 90 VDC	
				Watts	Hp			Outer	Inner		Rated Current (amps)	Resistance Ω @ 20° C
5	5MC90B	Base	Convection	136	.18	6000	.05	.0075	.0091	15	.21	306
7	7MC90C	C-Face (1)	Convection	300	.4	3600	.25	.033	.020	21	.26	257
7	7MCA90C	C-Face (1)	Forced Air	940	1.26	3600	.25	.033	.020	29	.26	257
10	10MC90B20	Base	Convection	500	.67	3600	.15	.04	.023	26	.25	273
10	10MC90F20	Flange (6)	Convection	500	.67	3600	.15	.04	.023	26	.25	273
10	10MCA90B20	Base	Forced Air	785	1.05	3600	.15	.04	.023	33	.25	273
10	10MCW90B20 (8)	Base	Water	2500	3.35	3600	.15	.04	.022	26	.25	273
50	50MC90B20	Base	Convection	1050	1.41	3600	.4	.24	.18	57	.53	127
50	50MC90F20/22 (7)	Flange (2)	Convection	1050	1.41	3600	.4	.24	.17	61	.53	127
50	50MCA90B20	Base	Forced Air	1350	1.80	3600	.4	.24	.18	67	.53	127
50	50MCW90B20 (8)	Base	Water	3000	4.02	3600	.8	.24	.17	57	.53	127
100	100MC90B20	Base	Convection	1100	1.47	3600	1	.68	.46	98	1	68
100	100MC90F20/22 (7)	Flange (5)	Convection	1100	1.47	3600	1	.68	.46	98	1	68
100	100MCA90B20	Base	Forced Air	1700	2.27	3600	1	.68	.46	110	1	68
100	100MCW90B20 (8)	Base	Water	4500	6.03	3600	1.5	.68	.46	98	1	68

NOTES:

- (1) Utilize NEMA 56C frame motor
- (2) Utilize NEMA 213TC or 215TC frame motors or NEMA 182TC and 184TC with A-5 Adapter Kit
- (3) The data given represents the average, continuous heat dissipation capacity of units operating under slip conditions
- (4) Applications requiring continuous operation below 30 rpm should be referred to the factory
- (5) Utilize NEMA 254TC or 256TC frame motors
- (6) Utilize NEMA 143TC and 145TC frame motors
- (7) F-22 = conduit box in F-2 position, F-20 = conduit box in F-1 position, mounting brackets also differ
- (8) Water cooled units require rotary union assembly

MAGNECLUTCH Dimensions - Base Mount



Model	A	B	C	D	E	F	G	H	I	J	K	L	Key
5MC90B	9.5	-	5.44	0.625	2.82	0.94	2.25	0.31	1.31	2.93	5.25	5.25	3/16 SQ x 1.13L
10MC90B20	11.44	7.39	6.25	0.75	3.24	2.09	2.38	0.41	1.7	5.08	6.03	5.81	3/16 SQ x 1.38L
50MC90B20	15.25	9.84	8.75	1.25	4.50	2.75	4	0.41	2.22	7.75	8.5	9.38	1/4 SQ x 1.75L
100MC90B20	17.5	11.84	10.75	1.625	5.50	3.75	4.5	0.56	2.6	9.8	10.5	10.5	3/8 SQ x 2.0L

NOTES:

- (1) Physical appearance may vary between models
- (2) Consult factory for dimensions of flange mounted, NEMA C-face mounted, forced air cooled, and water cooled units
- (3) Recommended maximum shaft deviation from horizontal is 30°
- (4) Shaft keys supplied with all units
- (5) Dimensions in inches

MAGNEBRAKE Model Name Convention:



First number = rated torque
 MB = air convection cooled
 MBA = forced air cooled
 MBW = water cooled

90 = 90 VDC coil
 B = base mount
 S = shaft mount
 20 = design number

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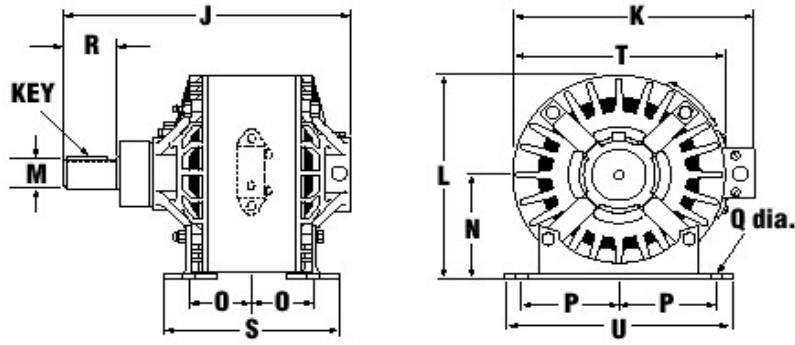
MAGNEBRAKE Specifications

Rated Torque (lb ft)	Model	Mounting	Cooling	Heat Dissipation @ 1800 rpm (1)		Max Operating Speed (rpm) (2)	Non-Excited Drag Torque (lb ft)	Inertia (WK ²) Rotating Members (lb ft ²)		Weight (lbs)	Coil Data 90 VDC	
				Watts	Hp			Outer	Inner		Rated Current (amps)	Resistance Ω @ 20° C
5	5MB90S	Shaft	Convection	100	.13	4000	.15	-	.011	7	.15	470
5	5MBA90S	Shaft	Forced Air	400	.54	4000	.15	-	.011	15	.15	470
25	25MB90S	Shaft	Convection	140	.19	4000	.4	-	.07	17	.48	142
25	25MBA90S	Shaft	Forced Air	500	.67	4000	.4	-	.07	25	.48	142
50	50MB90S	Shaft	Convection	200	.27	3500	.7	-	.4	48	.29	230
50	50MBA90S	Shaft	Forced Air	1000	1.34	3500	.7	-	.4	55	.29	230
50	50MB90B20	Base	Convection	1050	1.41	3600	.4	.24	-	57	.53	127
50	50MBA90B20	Base	Forced Air	1350	1.80	3600	.4	.24	-	67	.53	127
50	50MBW90B20	Base	Water	3000	4.02	3600	.8	.24	-	57	.53	127
75	75MB90S	Shaft	Convection	600	.80	2600	2	-	.65	60	.99	70
75	75MBA90S	Shaft	Forced Air	1100	1.47	2600	2	-	.65	70	.99	70
100	100MB90B20	Base	Convection	1100	1.47	3600	1	.68	-	98	1	68
100	100MBA90B20	Base	Forced Air	1700	2.27	3600	1	.68	-	110	1	68
100	100MBW90B20	Base	Water	4500	6.03	3600	1	.68	-	98	1	68

NOTES:

- (1) The data given represents the average, continuous dissipation capacity of units operating under slip conditions
- (2) Applications requiring continuous operation below 30 rpm should be referred to factory

MAGNEBRAKE Dimensions - Base Mounted

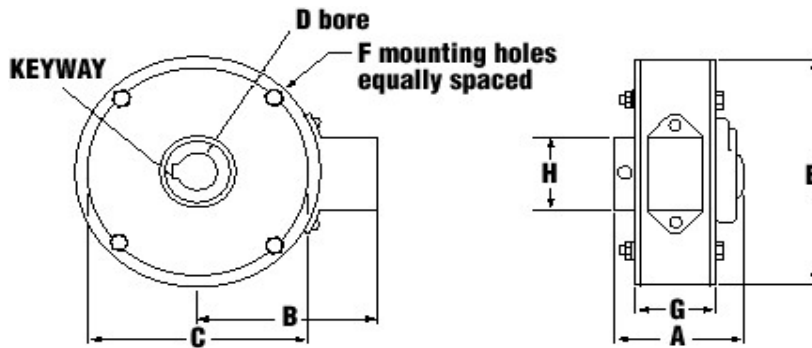


Model	J	K	L	M	N	O	P	Q	R	S	T	U	Key
50MB90B20	11.75	9.84	8.75	1.25	4.50	2.75	4	0.41	2.22	7.75	8.5	9.38	.25 SQ x 1.75L
100MB90B20	13.5	11.84	10.75	1.625	5.50	3.75	4.5	0.56	2.6	9.8	10.5	10.5	.38 SQ x 2.0L

NOTES:

- (1) Physical appearance may vary between models
- (2) Consult factory for dimensions of forced air cooled and water cooled units
- (3) Recommended maximum shaft deviation from horizontal is 30°
- (4) Shaft keys supplied with all units
- (5) Dimensions in inches

MAGNEBRAKE Dimensions - Shaft Mounted



Model	A	B	C	D	E	F			G	H	Keyway For
						Holes	Studs	THD			
5MB90S	3.43	3.49	3.625	0.625	4.25	3	-	10-24 x .375 DP	2.79	0.985	3/16 SQ Key
25MB90S	3.69	4.52	5.88	1.125	6.25	-	3	#10-32	2.63	2.88	1/4 SQ Key
50MB90S	4.66	5.9	8.41	1.75	9.03	-	4	1/4 - 20	3.15	2.88	3/8 SQ Key
75MB90S	5.06	5.9	9.34	(6)	10.00	-	4	1/4 - 20	5.06	3.94	Taper Lock (6)

NOTES:

- (1) Physical appearance may vary between models
- (2) Consult factory for dimensions of forced air cooled units
- (3) Recommended maximum shaft deviation from horizontal is 30°
- (4) Suitable torque arm required to prevent rotation - mounting should be "floating"
- (5) Bore adapters for smaller shaft sizes available for 25 and 50 series brakes, consult factory
- (6) Unit supplied with 1615B taper lock adapters - customer to furnish 1615 taper lock bushings to accommodate shaft sizes 1/2" to 1-5/8"
- (7) Dimensions in inches