



# BMBM series

## Stage motors





# The Company

M.G.M. motori elettrici S.p.A. established in 1950 as a brake motors manufacturer is now one of the world leaders in brake motor production.

## Stage motors

### BMBM double brake motors series

BMBM series consists of three phase AC brake motors with twin DC brakes working independently of each other, starting from 71 up to 280 frame sizes and power range from 0.18 kW up to 90 kW (4 poles power range).

Complete list of power and poles is available.

BMBM series main feature is a very high reliability in those lifting applications where there are high demands of safety and silence.

For these reasons BMBM series motors are particularly suitable to be used in TV-cine studios and theatres stages.

The motor brakes in case of power supply failure. The braking action is always secured through a very quick and precise stop assuring a safe and a prompt stop in case of intentional or unintentional power supply failure. The braking action is obtained without shaft axial sliding and it provides equal braking torque in both directions of rotation.

The brake components and assembly are designed with special features to be noiseless during stops.

The manual brake release is made up of two levers (one for each brake) so to avoid unwanted starts. It's possible to release the brake just using one hand.

The two brakes are supplied through independent rectifiers which are positioned in the terminal box. Rectifiers are provided with over-voltage protection device and with EMC filter. It's possible to have two types of wirings connection to the rectifier for each brake, in relation to the intervention time required.

Specific devices (microswitch or inductive initiator) for brake monitoring are available on request.

All BMBM series motors are suitable for inverter use; on request, it's possible to have the motor with a built-in encoder or to have the motor ready for the encoder to be easily mounted at customer's place.

The brake disc friction material is asbestos free and the brake disc lining has a high friction factor and is long-lasting.

The winding insulation class is F. Class H is available upon request. Motor construction type is Totally Enclosed Not Ventilated (TENV) with IP 54 enclosure rating (IP 55 and external cooling are available upon request).

BMBM series motors tolerate a high overload level and being not self-cooled have to be used on intermittent duty cycle (S2-10min, S2-20min, S2-25min, S2-30 min, S3-40%, S3-60% are typical duty cycles).

On request it's possible to provide motors with thermo-protection devices (PTO or PTC).

Frame is made of die cast, light metal on motors up to 132 frame size and of cast iron on motors from 160 up to 280 frame size. On request cast iron frames on 112 and 132 sizes are available on request as well as die cast light metal on 160 and 180 frame sizes.

Feet are frame integrated (they are not simply attached to the frame) on IM B3 mounting (foot mounted) and it makes the motor very sturdy since these motors are used in critical applications.

Shields and flanges are made of aluminium up to 90 frame size and of cast iron for above sizes.

On request all BMBM motors can be supplied provided with the electric and noise level test reports. Motors can be regularly tested in the anechoic room situated in our main production facility in Serravalle Pistoiese.

MGM brake motors has the mark on the nameplate to indicate the conformity to the requirements of 2006/95/CE "Low Voltage Directive" and 2004/108/CE "Electromagnetic Compatibility Directive".

The design homologation in accordance with the EN81 standards for elevator brakes is granted.

On request cCSAus  as well as CCC  homologations are available. Motors can be provided, on request, with GOST-R approval for the russian market.

Please consult the MGM general brake motor catalogue for further information.

### BM, BA single brake motors series

Same electric and mechanical characteristics of BMBM series but with just one brake.

**BM series:** IEC metric motors from 56 to 250 frame size with DC brake

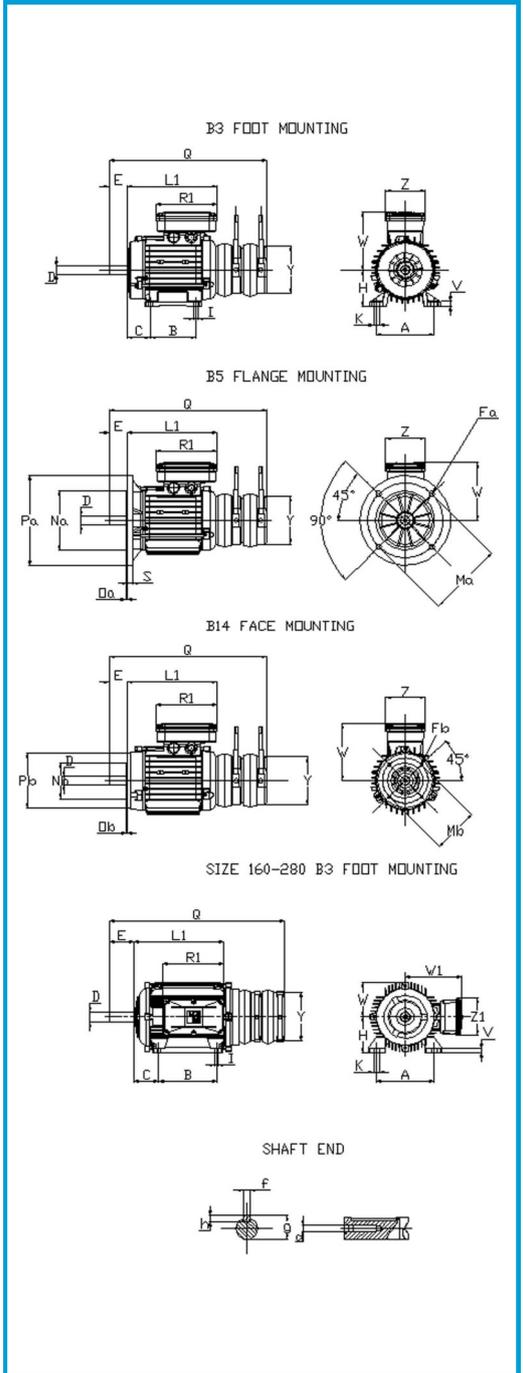
**BA series:** IEC metric motors from 56 to 315 frame size with AC or DC brake

Specific devices (microswitch or inductive initiator) for brake monitoring are available on request.

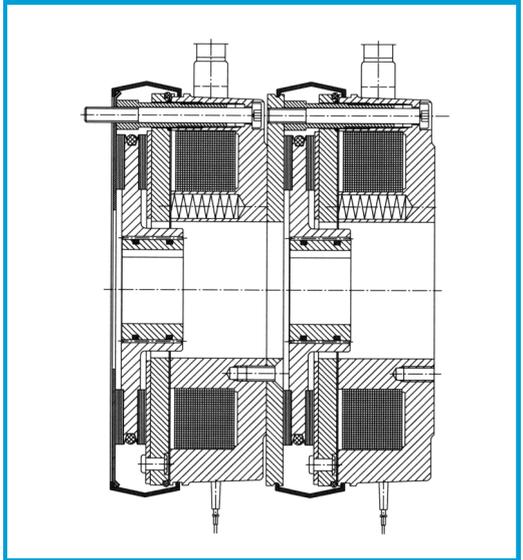
Type	71	80	90S	90L	100	112	132S	132M	160M	160L	180L	200	225S	225M	250	280S	280M
A	112	125	140	140	160	190	216	216	254	254	279	316	356	356	406	457	457
B	90	100	100	125	140	140	140	178	210	254	279	305	286	311	349	368	419
C	45	50	56	56	63	70	89	89	108	180	121	133	149	149	168	190	190
D	14	19	24	24	28	28	28	38	38	42	42	55	60	60	65	75	75
d	M5	M6	M8	M8	M10	M10	M12	M12	M16	M16	M16	M16	M16	M16	M20	M20	M20
E	30	40	50	50	60	60	80	80	110	110	110	110	140	140	140	140	140
Fa	9,5	11,5	11,5	11,5	14	14	14	14	18	18	18	18	18,5	18,5	18,5	18,5	18,5
Fb	M6	M6	M8	M8	M8	M8	M10	M10									
f	5	6	8	8	8	8	10	10	12	12	14	16	18	18	18	18	20
g	11	15,5	20	20	24	24	33	33	37	37	42,5	49	53	53	58	67,5	67,5
H	71	80	90	90	100	112	132	132	160	160	180	200	225	225	250	280	280
h	5	6	7	7	7	7	8	8	8	8	9	10	11	11	11	11	12
I	7	9	10	10	12	12	12	12	14	14	14	18	18	18	24	24	24
L1	180	194	207	232	254	262	248	260	314	337	399	424	446	440	436	436	436
Ma	130	165	165	165	215	215	265	265	300	300	300	350	400	400	500	500	500
Mb	85	100	115	115	130	130	165	165									
Na	110	130	130	130	180	180	230	230	250	250	250	300	350	350	450	450	450
Nb	70	80	95	95	110	110	130	130									
Oa	3,5	3,5	3,5	3,5	4	4	4	4	5	5	5	5	5	5	5	5	5
Ob	2,5	3	3	3	3,5	3,5	3,5	3,5									
Pa	160	200	200	200	250	250	300	300	350	350	350	400	450	450	550	550	550
Pb	105	120	140	140	160	160	200	200									
Q	303	342	380	405	456	491	567	605	719	763	832	873	960	970	1130	1130	1150
R1	135	135	170	170	170	170	180	180	260	260	260	260	327	327	327	327	327
S	10	12	12	12	14	14	14	14	15	15	15	18	18	18	18	18	18
V	8,5	9,5	10,5	10,5	13	13,5	18	18	18	18	21	21	32	32	40	40	40
W1	120	131	148	148	162	176	196	196	267	267	277	277	341	341	361	361	361
Y	85	105	130	130	150	170	195	195	225	225	258	306	380	380	443	443	443
Z1	86	86	112	112	112	112	120	120	184	184	184	184	202	202	202	202	202

Frame size	Standard Braking Torque (Nm)	Power (W)
71	2x3,5	2x22
80	2x7,0	2x28
90	2x14	2x34
100	2x28	2x42
112	2x42	2x50
132	2x70	2x64
160	2x107	2x76
180	2x150	2x100
200	2x250	2x140
225	2x375	2x138
250	2x800	2x138
280	2x1000	2x148

## BMBM Series



## Double Brake





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