



MGM General Purpose 3-phase Brake Motors

IEC & NEMA Compatible Brake motors with 3-phase brake

BMX Series - 1/4HP, BAX Series 1/2 to 5HP

Features

- 230/460 Voltage
- Rated Output: 1/4 - 5 HP (0.18 - 3.7kW)
- IEC & NEMA compatible mounting options. IEC mounts B5 & B34. NEMA mounts 56C - 182TC
- 3 phase brake provides high braking torque, faster response time and better reliability
- 1800 RPM
- Continuous Duty (S1)
- Premium Efficiency (IE3) Frames 80-112, High efficiency (IE2) Frame 63/71
- IP54
- Class F insulation
- Inverter speed ratings: Constant torque 5:1, Variable torque 1000:1
- Enclosure: TEFC
- Aluminum construction
- Manual brake release (BAX Only)
- Mounting orientation:
 - C-face – horizontal or vertical
 - Rigid base – horizontal or vertical
- Note: BMX series 1/4HP is 1-phase 230V brake with rectifier
- Agency approvals: CE and CSA

The MGM Brake Motor advantage:

- Designed & built as dedicated brake motors. The perfect engineering and assembly combined with a strong and safe 3-phase brake, make these motors very reliable
- BAX series brakes are direct 3-phase AC coils (no DC rectifier)
- Superior braking performance vs standard brake motors: 3x faster response time, 2x holding torque, better cooling
- Motors built to the IEC standard provide the same power output as NEMA, but in a smaller footprint and robust design
- Top mount junction box design, with threaded entries provides ready terminal access
- Ring Lug Terminals makes wiring easy
- Aluminum construction: 25% weight savings
- MGM quality: produced in Italy with state of the art high quality manufacturing processes



1811
**C-face/
Removable
Rigid Base
(B34)**



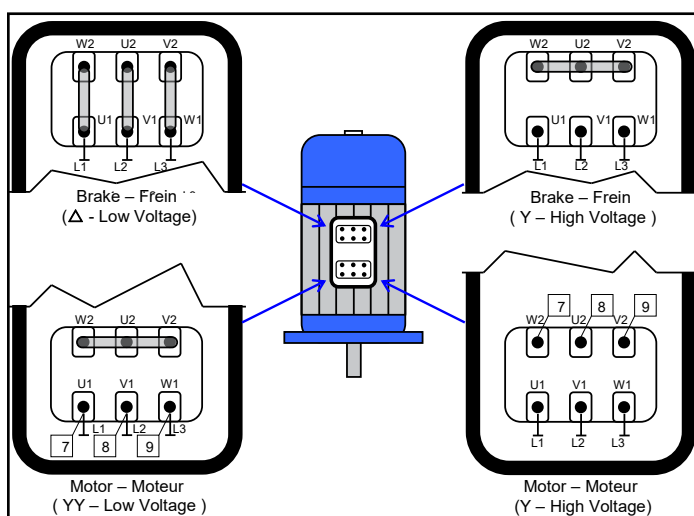
18Q4
D-flange (B5)

Applications

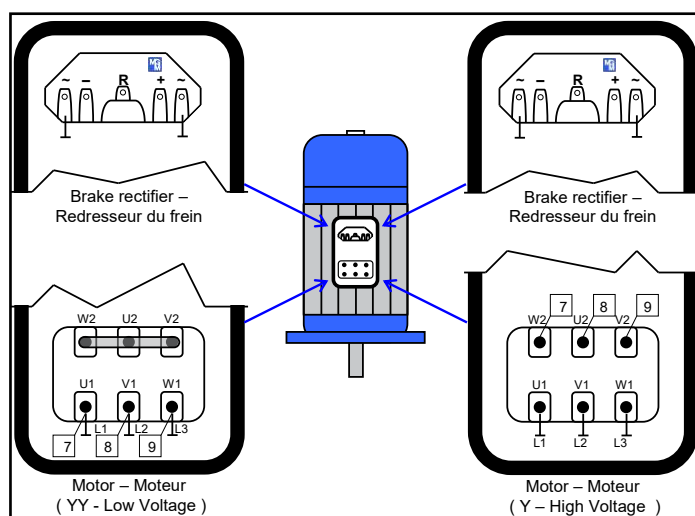
MGM brake motors are particularly suitable for hoist and traverse machines, tooling machinery, automatic and transfer machinery in textile, ceramic and packing fields and in all applications where precision and quickness in braking are required.

Wiring Diagrams

BAX Series



BMX Series



NOTE: Interchange any 2 line wires to reverse rotation



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Motor Specifications – 3-phase

Part Number	Price	Rated Power		Base RPM	Volts	Encl.	Frame	Service Factor*	Mounting	Efficiency Group	Weight (lb)	Drawing Links
		HP	kW									
Footless												
18HZ	\$468.00	1/4	.018	1800	230/460 VAC	TEFC	IEC 63	1.15	D-flange (B5)	IE2 high efficiency	18	PDF
14JQ	\$531.00	1/2	0.37				IEC 71		29		PDF	
18I8	\$584.00						IEC 71 (56C flange)		C-face		33	PDF
13HB	\$687.00	1	0.75				IEC 80		D-flange (B5)	IE3 premium efficiency	45	PDF
18IC	\$736.00						IEC 80 (56C flange)		C-face		46	PDF
18Q4	\$898.00	2	1.5				IEC 90		D-flange (B5)		62	PDF
18Q5	\$941.00						IEC 90 (145TC flange)		C-face		63	PDF
18IY	\$1,142.00	3	2.2				IEC 100 (182TC flange)		C-face		93	PDF
18J4	\$1,565.00	5	3.7				IEC 112 (182TC flange)				123	PDF
With Rigid Base												
18I1	\$489.00	1/4	.018	1800	230/460 VAC	TEFC	IEC 63	1.15	C-face/removable rigid base (B34)	IE2 high efficiency	17	PDF
18I6	\$551.00	1/2	0.37				IEC 71				28	PDF
18IA	\$713.00	1	0.75				IEC 80				45	PDF
18Q3	\$933.00	2	1.5				IEC 90				62	PDF
18Q6	\$1,132.00	3	2.2				IEC 100		D-flange/removable rigid base (B35)	IE3 premium efficiency	82	PDF
18Q7	\$1,132.00								86		PDF	
18OM	\$1,550.00	5	3.7				IEC 112		C-face/removable rigid base (B34)		113	PDF
18ON	\$1,550.00								D-flange/removable rigid base (B35)		116	PDF

*Note: 1.15 SF (1.0 SF with VFD)

Performance Data – 3-phase

Part Number	Rated Power		Service Factor	Duty Service	Full Load Speed (RPM)	Full Load Current (In)		Starting Current Ratio (Is/In)	Full Load Torque (Tn)		Starting Torque Ratio (Ts/Tn)	Power Factor	Efficiency (%)	Torque Speed Rating		Moment of Inertia (Joules)
	HP	kW				230V	460V		Nm	Lb-in				Constant	Variable	
Footless																
18HZ	1/4	.018	1.15	S1	1670	1.24	0.62	3.71	1.03	9.12	3.88	0.56	68.0	5:1	1000:1	3.55
14JQ	1/2	0.37			1690	1.82	0.91	4.4	2.09	18.50	2.58	0.71	72.0			8.1
18I8					1730	3.2	1.6	6.6	4.14	36.64	3.6	0.70	85.5			19.4
13HB	1	0.75			1739	6.2	3.1	7.1	8.2	72.58	4.1		86.5			34.6
18IC	2	1.5			1750	8.6	4.3	7.4	12	106.21		0.73	89.5			60.1
18Q4	3	2.2			1757	14	7	8.8	20.1	177.90	4					145
18Q5	5	3.7														
18IY																
18J4																
With Rigid Base																
18I1	1/4	.018	1.15	S1	1670	1.24	0.62	3.71	1.03	9.12	3.88	0.56	68.0	5:1	1000:1	3.55
18I6	1/2	0.37			1690	1.82	0.91	4.4	2.09	18.50	2.58	0.71	72.0			8.1
18IA	1	0.75			1730	3.2	1.6	6.6	4.14	36.64	3.6	0.70	85.5			19.4
18Q3	2	1.5			1739	6.2	3.1	7.1	8.2	72.58	4.1		86.5			34.6
18Q6	3	2.2			1750	8.6	4.3	7.4	12	106.21		0.73	89.5			60.1
18Q7					1757	14	7	8.8	20.1	177.90	4					
18OM	5	3.7														
18ON																



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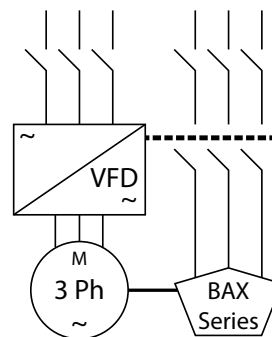
Brake Performance Data

Part Number	HP	Series	Brake Voltage	Brake Current	Brake Torque		Brake Manual Release	
					Nm	lb-ft		
Footless								
18HZ	1/4	BMX	230VAC 1-Phase	0.2	5	3.7	No	
14JQ	1/2	BAX	230/460VAC 3-Phase	0.1/0.09	14	10.3	Yes - Brake Release Tool	
18I8								
13HB	1			0.18/0.12	18	13.2		
18IC								
18Q4	2			0.30/0.35	38	28.0		
18Q5								
18IY	3				50	36.8		
18J4	5				80	59.0		
With Rigid Base								
18I1	1/4	BMX	230VAC 1-Phase	0.2	5	3.7	No	
18I6	1/2	BAX	230/460VAC 3-Phase	0.1/0.09	14	10.3	Yes - Brake Release Tool	
18IA	1			0.18/0.12	18	13.2		
18Q3	2			0.30/0.35	38	28.0		
18Q6	3				50	36.8		
18Q7								
18OM	5			0.40/0.35	80	59.0		
18ON								

Brake Wiring



NOTE: Brake must be wired separately when the motor is VFD operated. BAX series brake requires full 3-phase line voltage, 230 or 460V. BMX series (1/4HP) is 1-phase 230V only.



Motor and brake connection for VFD

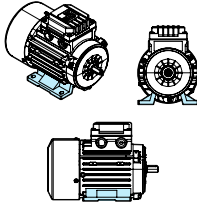
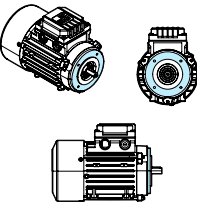
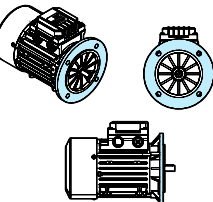
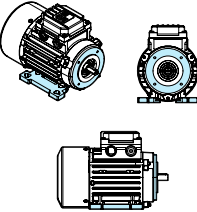
Alternate Performance Data (50Hz) – 3-phase

Part Number	Rated Power		F.L. RPM (380-415)	Volts	Current		Efficiency (%)	F.L. Power Factor
	HP	kW			No Load Current	Full Load Amps		
Footless								
18HZ	1/4	.018	1361	200/400 VAC	1.3/0.65	1.42/0.71	64.7	0.55
14JQ	1/2	0.37	1415		2.0/1.0	2.1/1.05	72.7	0.70
18I8						2.1/1.05		
13HB	1	0.75	1420		3.0/1.5	3.94/1.97	82.5	0.67
18IC						3.94/1.97		
18Q4	2	1.5	1428		5.0/2.5	7.0/3.5	85.3	0.74
18Q5						7.0/3.5		
18IY	3	2.2	1440		6.0/3.0	9.6/4.8	86.7	0.76
18J4	5	3.7	1448		10.0/5.0	16.2/8.1	88.4	0.75
With Rigid Base								
18I1	1/4	.018	1361	200/400 VAC	1.3/0.65	1.42/0.71	64.7	0.55
18I6	1/2	0.37	1415		2.0/1.0	2.1/1.05	72.7	0.70
18IA	1	0.75	1420		3.0/1.5	3.94/1.97	82.5	0.67
18Q3	2	1.5	1428		5.0/2.5	7.0/3.5	85.3	0.74
18Q6	3	2.2	1440	200/400 VAC	6.0/3.0	9.6/4.8	86.7	0.76
18Q7						9.6/4.8		
18OM	5	3.7	1448	200/400 VAC	10.0/5.0	16.2/8.1	88.4	0.75
18ON						16.2/8.1		



MGM IEC Motor Accessories

MGM IEC Motor Accessories			
Part Number	Price	Description	Image
<u>6401000170000</u>	\$436.00	M.G.M. Electric Motors BAX brake, replacement. For use with M.G.M. Electric Motors BAX series IEC 71 frame AC motors with brake.	
<u>6403000410P00</u>	\$475.00	M.G.M. Electric Motors BAX brake, replacement. For use with M.G.M. Electric Motors BAX series IEC 80 frame AC motors with brake.	
<u>6405000410P00</u>	\$581.00	M.G.M. Electric Motors BAX brake, replacement. For use with M.G.M. Electric Motors BAX series IEC 90 frame AC motors with brake.	
<u>6409000410P00</u>	\$683.00	M.G.M. Electric Motors BAX brake, replacement. For use with M.G.M. Electric Motors BAX series IEC 100 frame AC motors with brake.	
<u>6414000170P00</u>	\$812.00	M.G.M. Electric Motors BAX brake, replacement. For use with M.G.M. Electric Motors BAX series IEC 112 frame AC motors with brake.	
<u>6460000000000</u>	\$304.00	M.G.M. Electric Motors BMX brake, replacement. For use with M.G.M. Electric Motors BMX series IEC 63 frame AC motors with brake.	
<u>6201000000000</u>	\$40.00	M.G.M. Electric Motors BAX brake release tool, replacement. For use with all M.G.M. Electric Motors BAX series AC motors with brake.	

IEC Motor Mounting Types			
B3 Foot mounted 	B14 "C" type face at drive end, no feet. 	B5 "D" type flange at drive end, no feet. 	
	B34 "C" type face at drive end, with feet. 	B35 "D" type flange at drive end, with feet. 