



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)



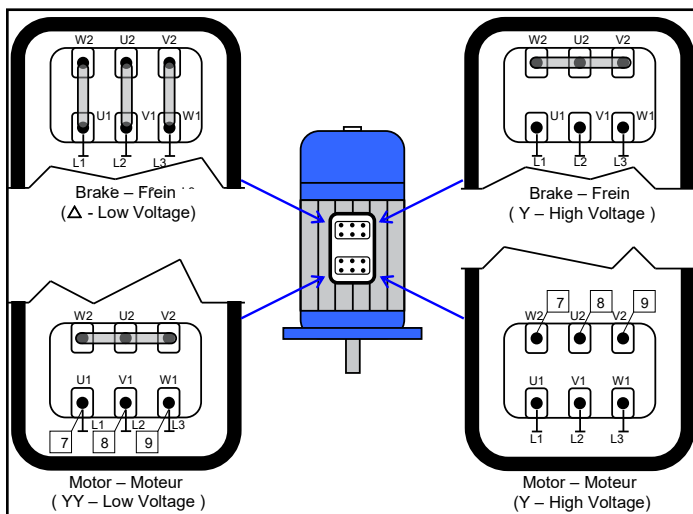
18Q4
D-flange (B5)

Applications

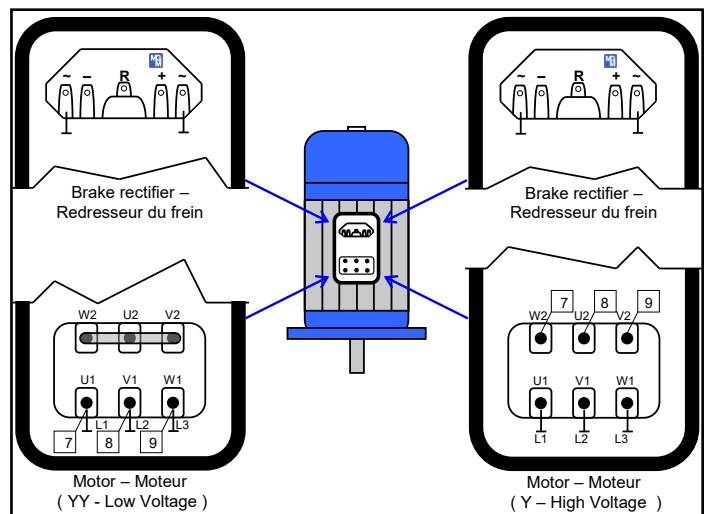
MGM brake motors are particularly suitable for hoist and traverse machines, tooling machinery, automatic and transfer machinery in textile, ceramic and packing fields and in all applications where precision and quickness in braking are required.

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		
1818	\$584.00						IEC 71 (56C flange)		C-face	33	PDF			
13HB	\$687.00	1	0.75				IEC 80		D-flange (B5)	45	PDF			
181C	\$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			
181Y	\$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														
1811	\$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		
1816	\$551.00	1/2	0.37				IEC 71				28	PDF		
181A	\$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)	82	IE3 premium efficiency	86	86	PDF
18Q7	\$1,132.00													
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
1818					1	0.75	1730	3.2	1.6	6.6	4.14	36.64	3.6			0.70
13HB	2	1.5					1739	6.2	3.1	7.1	8.2	72.58	4.1			
181C					3	2.2	1750	8.6	4.3	7.4	12	106.21				0.73
18Q4	5	3.7					1757	14	7	8.8	20.1	177.90	4			
18Q5																
181Y																
18J4																
With Rigid Base																
1811	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
1816	1/2	0.37			1690	1.82	0.91	4.4	2.09	18.50	2.58	0.71	72.0			8.1
181A	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					5	3.7	1757	14	7	8.8	20.1					177.90
18OM																
18ON																



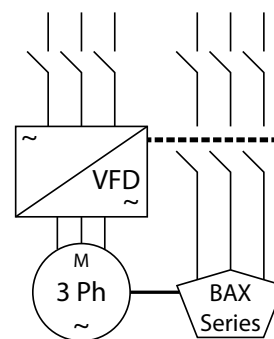
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Brake Performance Data							
Part Number	HP	Series	Brake Voltage	Brake Current	Brake Torque		Brake Manual Release
					Nm	lb-ft	
Footless							
18HZ	1/4	BMX	230VAC 1-Phase	0.2	5	3.7	No
14JQ	1/2	BAX	230/460VAC 3-Phase	0.1/0.09	14	10.3	Yes - Brake Release Tool
18I8							
13HB	1						
18IC							
18Q4	2						
18Q5							
18IY	3						
18J4	5						
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						
18Q3	2						
18Q6	3						
18Q7							
18OM	5						
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					3.0/1.5	3.94/1.97	82.5	0.67
13HB	1	0.75	1420		5.0/2.5	7.0/3.5	85.3	0.74
18IC					6.0/3.0	9.6/4.8	86.7	0.76
18Q4	2	1.5	1428		10.0/5.0	16.2/8.1	88.4	0.75
18Q5								
18IY	3	2.2	1440					
18J4	5	3.7	1448					
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.	

