ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Kollmorgen / Pacific Scientific PMB13B-Y0Y00-10* at our website: *Click HERE*

PMB MOTORS

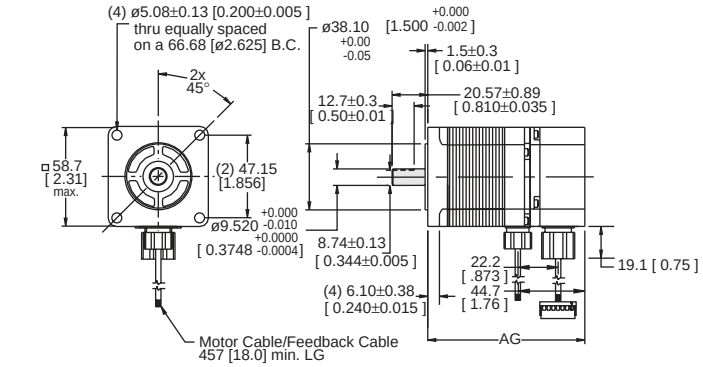
Pacific Scientific PMB Brushless Servo Motors

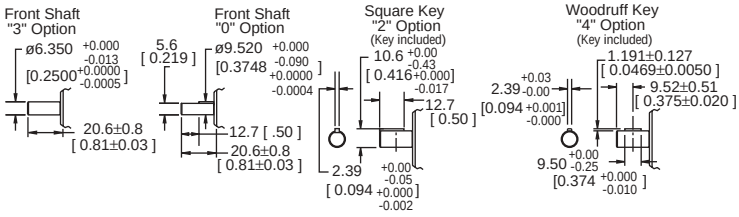


Features	Benefits
PMB Series Motors	
MS or AMP mini Mate-N-Lock® connector options	Improved application flexibility
IP40 Construction	Improved cost-effectiveness for higher volume applications

PMB2 SERIES MOTOR

mm [in]

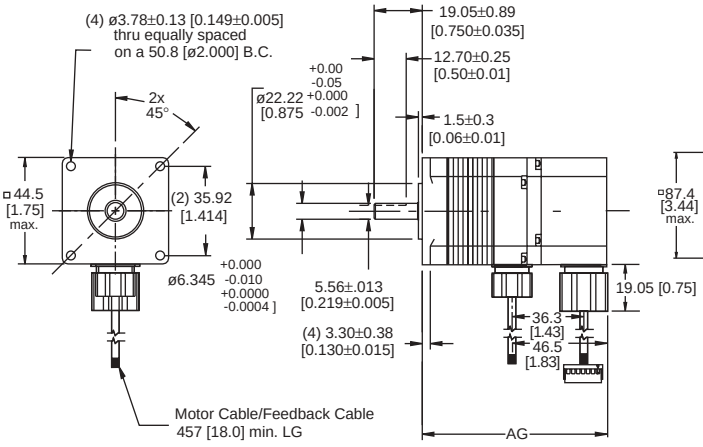




	Length (AG)	Inertia - with resolver		Inertia - with encoder	
Motor	mm (in)	kgm^2x10^{-3}	$lb\text{-}in\text{-}sec^2x10^{-3}$	kgm^2x10^{-3}	$lb\text{-}in\text{-}sec^2x10^{-3}$
PMB21	112.8 (4.44)	.023	.206	.023	.201
PMB22	142.0 (5.59)	.044	.390	.044	.385
PMB23	176.3 (6.94)	.065	.576	.065	.571

PMB1 SERIES MOTOR

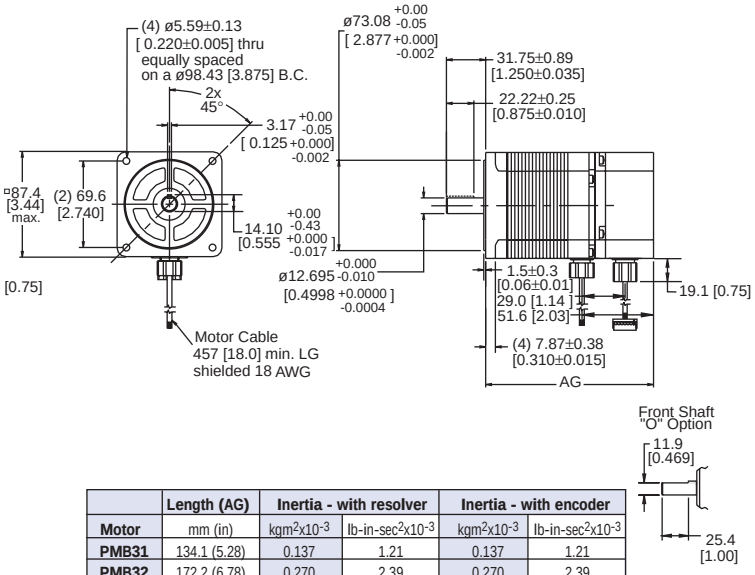
mm [in]



	Length (AG)	Inertia - with resolver		Inertia - with encoder	
Motor	mm (in)	kgm^2x10^{-3}	$lb\text{-}in\text{-}sec^2x10^{-3}$	kgm^2x10^{3}	$lb\text{-}in\text{-}sec^2x10^{-3}$
PMB11	108.0 (4.25)	0.006	0.050	0.005	0.045
PMB12	133.4 (5.25)	0.009	0.084	0.009	0.079
PMB13	158.8 (6.25)	0.013	0.118	0.013	0.113

PMB3 SERIES MOTOR

mm [in]



	Length (AG)	Inertia - with resolver		Inertia - with encoder	
Motor	mm (in)	kgm^2x10^{-3}	$lb\text{-}in\text{-}sec^2x10^{-3}$	kgm^2x10^{-3}	$lb\text{-}in\text{-}sec^2x10^{-3}$
PMB31	134.1 (5.28)	0.137	1.21	0.137	1.21
PMB32	172.2 (6.78)	0.270	2.39	0.270	2.39
PMB33	210.3 (8.28)	0.404	3.57	0.403	3.57

www.DanaherMotion.com • 815-226-2222

PMB MOTORS

RATINGS AND CHARACTERISTICS

Motor parameters and winding data. System pairings are available, see the Servo Selection Guide located on the **MOTIONEERING**® CD-ROM bound into the back inside cover of this catalog.

PMB1-2 SERIES MOTORS

PARAMETER	SYMBOL	UNITS	PMB11	PMB12	PMB13	PMB21	PMB22	PMB23
Continuous stall torque ① ②	T_{CS}	N-m (lb-in)	0.22 (1.95)	0.40 (3.5)	0.55 (4.9)	0.59 (5.2)	1.11 (9.8)	1.53 (13.5)
Peak torque ③ ④	T_{PK}	N-m (lb-in)	0.66 (5.8)	1.2 (10.6)	1.65 (14.6)	1.85 (16.4)	3.29 (29.1)	4.59 (40.6)
Inertia ⑤ ⑥	J_M	kgm^2x10^{-3} ($lb\text{-}in\text{-}sec^2x10^{-3}$)	0.0054 (0.048)	0.0093 (0.082)	0.0127 (0.112)	0.023 (0.204)	0.0438 (0.388)	0.065 (0.574)
Static friction (max.)	T_f	N-m (lb-in)	0.008 (0.07)	0.011 (0.1)	0.015 (0.13)	0.034 (0.30)	0.068 (0.60)	0.102 (0.90)
Viscous damping coefficient	K_{DV}	N-m/krpm (lb-in/krpm)	0.0023 (0.02)	0.0045 (0.04)	0.0068 (0.06)	0.0079 (0.07)	0.124 (0.11)	0.0181 (0.160)
Thermal resistance	R_{TH}	deg. C/watt	2.4	2.4	2.0	1.45	1.3	1.2
Thermal time constant	t_{TH}	min	12.0	14.0	16.0	22	24	26
Weight (motor only)	W	kg (lbs)	0.6 (1.4)	0.7 (1.6)	1.3 (2.9)	1.2 (2.7)	2.1 (4.6)	2.9 (6.4)
WINDING DATA			B-D	B-D	B-D	B-D	B-D	B-C
Torque constant (RMS)	K_r	$N\text{-}m/A_{RMS}$ ($lb\text{-}in/A_{RMS}$)	0.096 (0.85)-0.048 (0.42)	0.17 (1.48)-0.087 (0.77)	0.25 (2.2)-0.12 (1.05)	0.25 (2.24)-0.14 (1.21)	0.43 (3.8)-0.23 (2.01)	0.61 (5.39)-0.45 (4.0)
Voltage constant (RMS) (l-l)	K_E	V_{RMS}/rad/sec (V_{RMS}/krpm)	0.061 (6.4)-0.031 (3.2)	0.106 (11.1)-0.055 (5.8)	0.159 (16.6)-0.075 (7.9)	0.16 (16.8)-0.09 (9.1)	0.27 (28.8)-0.14 (15.1)	0.39 (40.5)-0.29 (30.0)
Continuous stall current ① ②	I_{CS}	A_{RMS}	2.3-4.6	2.4-4.6	2.2-4.6	2.4-4.3	2.6-4.9	2.5-3.4
Current at peak torque ④	I_{PK}	A_{RMS}	6.9-13.8	7.2-13.8	6.6-13.8	7.5-13.5	7.8-14.7	7.5-10.2
Resistance (line-to-line)	R_C	ohms	4.45-1.15	4.15-1.15	5.2-1.25	6.6-1.84	6.4-1.8	7.8-3.8
Inductance (line-to-line)	L	mH	3.2-0.8	3.5-1.0	4.8-1.1	5.5-1.6	6.7-1.9	8.4-4.3
Typical Rated Speed @ 36 VAC, 48 VDC bus	W_R	rpm	700-5,800	600-3,300	n/a-2,450	n/a-1,100	n/a-700	n/a-n/a
Typical Rated Torque @ 36 VAC, 48 VDC bus	T_{CR}	N-m (lb-in)	0.22 (1.95)-0.20 (1.77)	0.40 (3.5)-0.38 (3.4)	n/a (n/a)-0.50 (4.4)	n/a (n/a)-0.59 (5.2)	n/a (n/a)-1.10 (9.7)	n/a (n/a)-n/a (n/a)
Typical Rated Speed @ 240 VAC, 320 VDC bus	W_R	rpm	n/a	n/a	11,500-n/a	9500-n/a	6,000-n/a	4,100-6,350
Typical Rated Torque @ 240 VAC, 320 VDC bus	T_{CR}	N-m (lb-in)	n/a (n/a)	n/a	0.37 (3.27)-n/a (n/a)	0.42 (3.7)-n/a (n/a)	0.9 (8.0)-n/a (n/a)	1.33 (11.8)-1.17 (10.4)

PMB3 SERIES MOTORS

PARAMETER	SYMBOL	UNITS	PMB31	PMB32	PMB33
Continuous stall torque ① ②	T_{CS}	N-m (lb-in)	2.03 (18)	3.8 (33.6)	5.3 (46.9)
Peak torque ③ ④	T_{PK}	N-m (lb-in)	6.1 (53.9)	11.4 (101)	15.9 (141)
Inertia ⑤ ⑥	J_M	kgm^2x10^{-3} ($lb\text{-}in\text{-}sec^2x10^{-3}$)	0.137 (1.21)	0.272 (2.41)	0.408 (3.61)
Static friction (max.)	T_f	N-m (lb-in)	0.09 (0.80)	0.12 (1.10)	0.169 (1.50)
Viscous damping coefficient	K_{DV}	N-m/krpm (lb-in/krpm)	0.0124 (0.110)	0.026 (0.23)	0.038 (0.34)
Thermal resistance	R_{TH}	deg. C/watt	1.1	0.9	0.78
Thermal time constant	τ_{TH}	min	28	30	32
Weight (motor only)	W	kg (lbs)	2.5 (5.5)	4.4 (9.7)	6.3 (13.8)
WINDING DATA			B-D	C-D-E	C-E-F
Torque constant (RMS)	K_r	$N\text{-}m/A_{RMS}$ ($lb\text{-}in/A_{RMS}$)	0.77 (6.83)-0.40 (3.51)	1.32 (11.7)-0.75 (6.62)-0.57 (5.06)	1.85 (16.4)-0.92 (8.2)-0.59 (5.3)
Voltage constant (RMS) (l-l)	K_E	V_{RMS}/rad/sec (V_{RMS}/krpm)	0.49 (51.3)-0.25 (26.4)	0.838 (87.7)-0.475 (49.7)-0.363 (38.0)	1.17 (123)-0.586 (61.4)-0.377 (39.5)
Continuous stall current ① ②	I_{CS}	A_{RMS}	2.64-5.1	2.88-5.1-6.7	2.9-5.8-9.0
Current at peak torque ④	I_{PK}	A_{RMS}	7.9-15.3	8.64-15.3-20.1	8.6-17.3-27.0
Resistance (line-to-line)	R_C	ohms	7.5-2.0	7.7-2.4-1.46	8.4-2.1-0.86
Inductance (line-to-line)	L	mH	16-4.2	19.3-6.2-3.6	23.4-5.8-2.4
Typical Rated Speed @ 240 VAC, 320 VDC bus	WR	rpm	3,100-6,550	1,900-3,600-4,650	1,350-3,050-4,850
Typical Rated Torque @ 240 VAC, 320 VDC bus	T_{CR}	N-m (lb-in)	1.94 (17.2)-1.53 (13.5)	3.6 (31.9)-3.4 (30.1)-3.1 (27.4)	4.9 (43.3)-4.6 (40.7)-3.75 (33.3)

Note: All values at 25°C unless otherwise noted. All Inertias are shown with a Resolver.
① Motor operated at rated winding temperature rise of Δt = 100°C above ambient at 25°C ambient. Ratings result of average rating between free air and cold plate mounting. Equivalent to mounting to a 10" x 10" x 1/4" aluminum heat sink. | ② All tests performed with sinusoidal commutation. | ③ Theoretical motor maximum. | ④ Caution: For peak torques or peak currents greater than 4x the continuous rating, consult the factory for thermal considerations. | ⑤ Motor with resolver feedback.

www.DanaherMotion.com • 815-226-2222

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP