

- Quiet operation, low electromagnetic interference (EMI)
- No brush maintenance or contamination from brush dust
- Wire harness differs between 24V and 130V models. Check online CAD drawings for details.
- See page 34 for accessories
- See page 41 for reference dimensions

Brushless DC—Type 22B | 1/16-1/5 HP

Speed (rpm)	Rated Torque (oz-in.)	HP	Torque Constant (oz-in./A)	Voltage Constant (V/krpm)	Winding		Rotor Inertia (oz-in.-sec. ²)	Radial Load (lb.)	Product Type ²	Accy Shaft	No Accy Shaft	Accy Shaft	No Accy Shaft
					Res. (Ohms)	Induct. (mH)				24V		130V	
2500	25	1/16	8.4	5.8	1.2	2.1	0.0036	25	22B2BEBL	N3602	3502	—	—
2500	25	1/16	47	35	40	70	0.0036		22B2BEBL	—	—	—	3302
2500	50	1/8	9	6.7	0.52	1.1	0.0072		22B4BEBL	3604	N3504	—	—
2500	50	1/8	50	37	15	40	0.0072		22B4BEBL	—	—	3404	3304
10,000	20	1/5	14	9.8	4.8	10	0.0072		22B4BEBL	—	—	—	3314



Type 22B

Brushless DC—Type 34B | 1/5-3/8 HP

Speed (rpm)	Rated Torque (oz-in.)	HP	Torque Constant (oz-in./A)	Voltage Constant (V/krpm)	Winding		Rotor Inertia (oz-in.-sec. ²)	Radial Load (lb.)	Product Type ²	Accy Shaft	No Accy Shaft	Accy Shaft	No Accy Shaft
					Res. (Ohms)	Induct. (mH)				24V		130V	
2500	81	1/5	8.8	6.6	0.3	0.54	0.0115	42	34B3BEBL	3600	3500	—	—
2500	81	1/5	51	38	9.2	24	0.0115		34B3BEBL	—	—	3406	3306
2500	101	1/4	9.0	6.7	0.17	0.40	0.0154		34B4BEBL	—	N3507	—	—
2500	101	1/4	51	38	5.8	14	0.0154		34B4BEBL	—	—	—	3307
2500	151	3/8	9.0	6.7	0.099	0.246	0.0215		34B6BEBL	N3609	N3509	—	—
2500	151	3/8	57	42	3.4	11	0.0215	34B6BEBL	—	—	3409	3309	
10,000	33	1/3	14.5	10.7	1.7	4.6	0.0154	34B4BEBL	—	—	—	3317	



Type 34B

INTEGRAmotor BLDC—Type 22B | 1/16-1/4 HP

Motor Output		Torque Constant (oz-in./A)	Voltage Constant (V/krpm)	Winding		Rotor Inertia (oz-in.-sec. ²)	Control Input			Product Type	Model Number		
Speed Range (rpm)	Torque (oz-in.)			Res. (Ohms)	Induct. (mH)		HP	Volts (VDC)	Continuous Amps		Type SR Analog Interface	Type FV Digital Interface ³	
22B INTEGRAmotor													
200-2500	75-2500	25	47	35	40	70	0.004	1/16	24	3.3	22B2BEBL/**	3802	N3702
		50	50	37	15	40	0.007	1/8			22B4BEBL/**	3804	3704
34B INTEGRAmotor													
—	60-2500	100	9.6	7.1	0.18	0.43	0.0154	1/4	24	12	34B4FEBL/FV	—	3708



Type 22B/SR and 22B/FV INTEGRAmotor



Type 34B/FV INTEGRAmotor

¹ SOA: Contact the factory for detailed speed/torque information (Safe Operating Area). See page 19.
² The fifth character of the product type changes from "B" to "F" for accessory ready models.
³ Type FV INTEGRAmotors require a PWM signal from a motion controller or PLC to operate.
 ** INTEGRAmotor can be ordered with either analog (/SR) or digital (/FV) interface option.
 "N" model numbers require lead time and minimum quantities.

High-Performance Direct Drive Brushless DC System

The e-TORQ motors employ a unique electromagnetic design to improve efficiency, minimize size, and maximize torque. They are ideal for OEM applications where high torque, very compact design, enclosed construction, and economy are necessary.

- Zero cogging over full speed range
- Maximum torque linearity
- Very high efficiency
- Ten times peak torque is available
- Supplied with encoder
- See page 43 for reference dimensions

DC Bus Voltage (VDC)	Continuous Rating				Peak Ratings			Motor Constants				Model Number
	Speed (rpm)	Torque (lb-in.)	Current (Amps)	Power Output (Watts)	Speed (rpm)	Torque (lb-in.)	Current (A-rms)	Ke (V/krpm)	Kt (lb-in./Amp)	Resistance (Ohms)	Inductance (mH)	
7 in. e-TORQ Motor, Flange Mount												
130/260	2500/5000	20/19	5.5/5.3	590/1230	6000	200	45	42.5	3.88	2.16	1.5	N9411
7 in. e-TORQ Motor, Face Mount												
130/260	2500/5000	20/16	5.5/4.6	590/1040	6000	200	45	42.5	3.88	2.16	1.5	N9410
14 in. e-TORQ Motor, Face Mount												
130/260	1150	200	21	2700	2000	2000	200	96.1	8.22	0.119	0.09	N9430

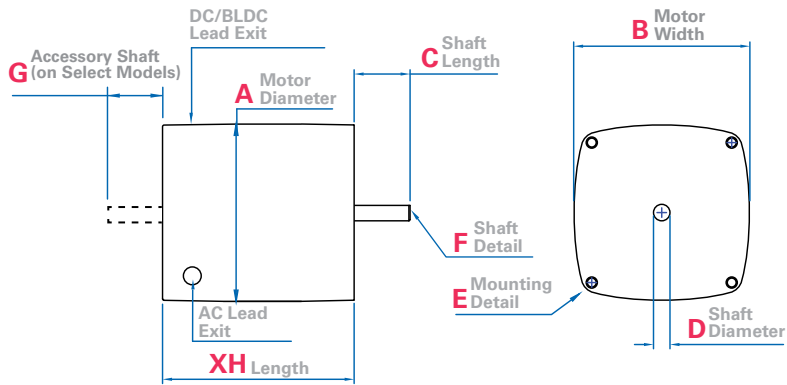
"N" model numbers require lead time and minimum quantities.



e-TORQ
Flange mount shown

Motor Dimensions

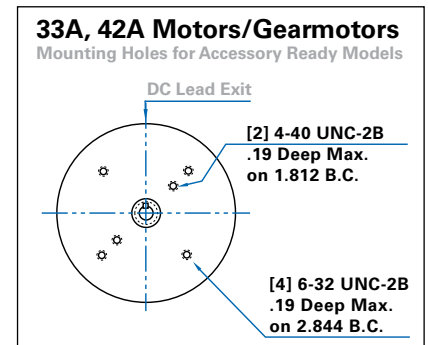
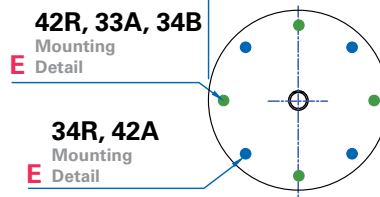
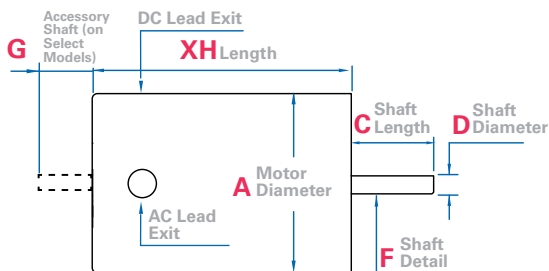
Dimensions (in inches) are for reference only. For CAD drawings and up-to-date specifications, please visit www.bodine-electric.com.



Motor Type K-2, 30R, 22B, pages 18-19, 23

	Product Type	Weight (lbs.)	XH Length	A Diameter Square	B Width	C Shaft Length	D Shaft Diameter	E Mounting Detail	F Shaft Detail	G Acc'y Shaft	Lead/Cord Length (in.)
K-2	K2-23	1.6	1.827	2.38	2.38	.62	.188	[4] 8-32 UNC-2B x .18 Deep Max. on 2.687 B.C.	Flat	No	12
	K2-24	1.9	2.20								
	K2-26	2.2	2.50								
K-2 Torque Motor	Model 0621	2.2	2.484								
30R	30R2	4.75	3.665	3.34	3.34	1.06	.313	[4]10-32 UNF-2B x .32 deep Max. on 3.75 B.C.	Flat	Yes	12
	30R4										
30R Torque Motor	Model 5625										
22B	22B2	2.5	3.610	2.378	2.378	.94	.375	[4] 8-32 UNC-2B x .35 Deep Max. on 2.625 B.C.	Flat	Yes	12 or 24
	22B4	3.5	4.570							No	None
22B INTEGRA	22B2	2.5	4.719	2.93	2.93						
	22B4	3.5	5.679								

Only the first four characters of the product type are relevant to dimensions



Motor Type 34R, 42R, 33A, 42A, 34B, pages 19-23 (Face Mount)

	Product Type	Weight	XH Length	A Diameter	B Width (PMDC)	C Shaft Length	D Shaft Diameter	E Mounting Detail	F Shaft Detail	G Acc'y Shaft	Lead/Cord Length (in.)
34R	34R4	9.0	5.526	4.02	—	1.25	.375	[4] 1/4-20 UNC-2B x .31 Min. Deep on 2.75 B.C.	Flat	No	12
	34R6		6.526								
42R	42R3	7.75	5.616	4.73	—	1.38	.375	[4] 1/4-20 UNC-2B x .31 Min. Deep on 3.75 B.C.	Flat	No	12
	42R5	11.0	6.679								
	42R6	13.0	7.116								
33A	33A3	5.1	5.140	3.39	3.75	1.48	.375	[4] 10-32 UNF-2B x .25 Min. Deep on 2.75 B.C.	Flat	Yes	24
	33A5	6.28	6.200	3.39	3.75	1.48	.500				
	33A7	7.45	7.401								
42A NEMA 42C	42A5	11.3	6.656	4.26	4.25	1.62	.500	[4] 1/4-20 UNC-2B x .31 Min. Deep on 3.75 B.C.	Flat	Yes	24
	42A7	14.5	7.781			1.31			Flat/Key		
42A NEMA 42CZ	42A5	11.3	6.656								
	42A7	14.5	7.781								
34B	34B3	6.0	4.043	4.02	—	1.625	.500	[4] 1/4-20 UNC-2B x .31 Min. Deep on 2.75 B.C.	Flat	Yes	12 or 24
	34B4	7.0	4.543								
	34B6	9.0	5.543								

Only the first four characters of the product type are relevant to dimensions