

- Unvented gearhousing for universal horizontal mounting
- Helical primary gear for quietness and hardened steel spur gearing
- on subsequent stages for high output torque and long life
- See page 24 for controls
- Capacitors and accessories on page 34
- See page 36 for reference dimensions

Variable Speed – Pacesetter Inverter Duty AC Gearmotors

Fixed Speed Rating					Variable Speed (SOA) Ratings ¹					Product Type	(230V) Model Number
Speed (rpm)	Torque (lb-in.)	Motor HP	A	Gear Ratio	Speed Range (rpm)	Frequency Range (Hz)	Torque Type	Torque @ 10 Hz (lb-in.)	Torque @ 60 Hz (lb-in.)		
Three-Phase, Inverter Duty, Non-synchronous (TENV)											
9	40	1/25	0.38	180	1.2-11.65	10-90	constant	40	40	40	30R2BEPP-D4 2210
19	40	1/25	0.38	90	2.5-23			40	40	40	30R2BEPP-D4 N2212
28	40	1/25	0.38	60	3.7-35			40	40	40	30R2BEPP-D3 N2214
142	19	1/17	0.48	12	19-175			19	19	19	30R4BEPP-D3 2216



Type 30R-D Pacesetter

Fixed Speed – AC Gearmotors

Speed (rpm)	Rated Torque (lb-in.)	Motor HP	V	Hz	Ph	Amps	Gear Ratio	Radial Load (lbs.)	Capacitor (µF/VAC)	Product Type	Model Number
Permanent Split Capacitor, Non-synchronous											
3.8	40	1/50	115	60	1	0.33	450	65	4.0/250	30R1BECI-D5	5463
9.4	40	1/50				0.33	180		4.0/250	30R1BECI-D4	5462
19	40	1/50				0.33	90		4.0/250	30R1BECI-D4	5461
28	40	1/30				0.45	60		5.0/250	30R2BECI-D3	5474
57	27	1/30				0.45	30		5.0/250	30R2BECI-D3	5473
94	16	1/30				0.45	18		5.0/250	30R2BECI-D3	5472
140	11	1/30				0.45	12		5.0/250	30R2BECI-D3	5471
285	5	1/30				0.45	6		5.0/250	30R2BECI-D3	5470



Type 30R-D

Permanent Magnet DC Gearmotors

Speed (rpm)	Rated Torque (lb-in.)	Rated Current (Amps)		Peak Torque (lb-in.)	Motor HP	Gear Ratio	Radial Load (lbs.)	Product Type ²	Accy Shaft	No Accy Shaft	Accy Shaft	No Accy Shaft
		24V	130V						24V	130V		
5.6	40	1.8	0.30	55	1/29	450	24A2BEPM-D5	N4999	N4799	N4499	0199	
8.3	40	1.8	0.30	55	1/29	300	24A2BEPM-D5	N4998	N4798	N4498	0198	
14	40	1.8	0.30	55	1/29	180	24A2BEPM-D4	N4997	N4797	N4497	0197	
28	40	1.8	0.30	55	1/29	90	24A2BEPM-D4	N4996	N4796	N4496	0196	
42	40	2.6	0.48	55	1/17	60	24A4BEPM-D3	—	4690	—	0190	
42	36	1.8	0.30	55	1/29	60	24A2BEPM-D3	N4995	N4795	N4495	0195	
83	29	2.6	0.48	33	1/17	30	24A4BEPM-D3	—	—	—	0189	
83	18	1.8	0.30	33	1/29	30	24A2BEPM-D3	N4994	N4794	N4494	0194	
139	17	2.6	0.48	20	1/17	18	24A4BEPM-D3	—	—	—	0188	
139	11	1.8	0.30	20	1/29	18	24A2BEPM-D3	N4993	N4793	N4493	0193	
208	12	2.6	0.48	13	1/17	12	24A4BEPM-D3	—	—	—	0187	
208	7.1	1.8	0.30	13	1/29	12	24A2BEPM-D3	N4992	N4792	N4492	0192	
417	5.4	2.6	0.48	6.2	1/17	6	24A4BEPM-D3	—	—	—	0186	
417	3.3	1.8	0.30	6.2	1/29	6	24A2BEPM-D3	N4991	N4791	N4491	0191	



Type 24A-D

Brushless DC Gearmotors

Speed (rpm)	Rated Torque (lb-in.)	Rated Current (A)		Peak Torque (lb-in.)	Motor HP	Gear Ratio	Radial Load (lbs.)	Product Type	Accy Shaft	No Accy Shaft	Accy Shaft	No Accy Shaft
		24V	130V						24V	130V		
14	40	3.3	0.53	55	1/16	180	60	22B2BEBL-D4	N3636	N3536	N3433	3333
28	40			55		90		22B2BEBL-D4	N3635	N3535	N3431	N3331
42	40			55		60		22B2BEBL-D3	N3634	N3534	N3430	N3330
83	29			33		30		22B2BEBL-D3	3629	N3529	N3429	3329
139	17			20		18		22B2BEBL-D3	N3628	N3528	N3428	N3328
208	12			13		12		22B2BEBL-D3	N3627	N3527	N3427	3327
417	5.8			6.2		6		22B2BEBL-D3	N3626	N3526	N3426	3326



Type 22B-D

INTEGRAmotor BLDC Gearmotors

Motor Output				Control Input			Product Type	Model Number	
Speed Range (rpm)		Torque (lb-in.)	Gear Ratio	HP	Volts (VDC)	Continuous Amps		Type SR	Type FV
Type SR	Type FV								
0.7-8	0.3-8	40	300	1/16	24	3.3	22B2BEBL/**-D5	N3837	N3737
1-14	0.4-14	40	180				22B2BEBL/**-D4	3836	N3736
2-28	0.8-28	40	90				22B2BEBL/**-D4	N3835	N3735
3-42	1.3-42	40	60				22B2BEBL/**-D3	N3834	N3734
7-83	2.5-83	29	30				22B2BEBL/**-D3	3829	N3729
11-139	4.2-139	17	18				22B2BEBL/**-D3	N3828	N3728
17-208	6.3-208	12	12				22B2BEBL/**-D3	3827	N3727
33-417	13-417	5.8	6				22B2BEBL/**-D3	3826	N3726



Type 22B/SR-D and 22B/FV-D 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.

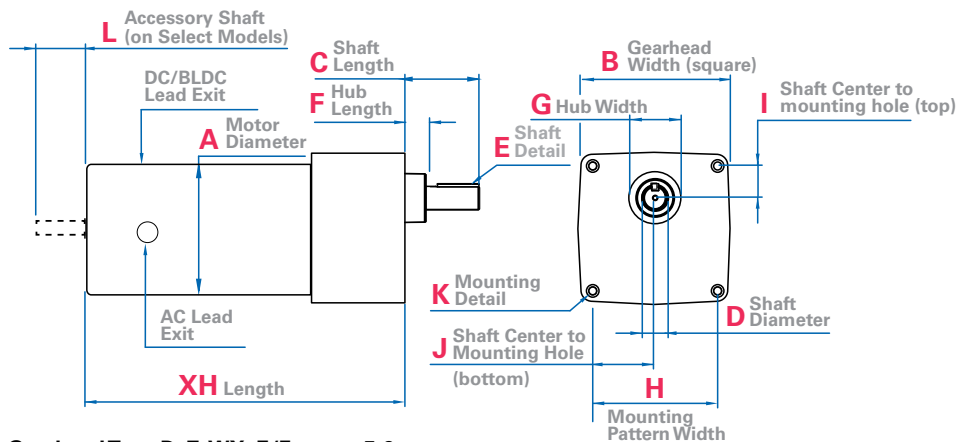
** INTEGRAmotor can be ordered with either analog (/SR) or digital (/FV) interface option.

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

Reference Drawings and Dimensions

Parallel Shaft Gearmotor Dimensions

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



Gearhead Type D, Z, WX, E/F, pages 5-9

	Product Type	Wt. (lbs.)	XH Length	A Diameter (Height)	B Width (square)	C Shaft Length	D Shaft Diameter	E Shaft Detail	F Hub Length	G Hub Width	H Mounting Pattern Width	I Shaft Center to Mounting Hole (top)	J Shaft Center to Mounting Hole (bottom)	K Mounting Detail	L Acc'y Shaft	Cord/Lead Length (in.)										
Type D Gearmotor																										
24A-D	24A2-D	4.0	5.887	2.42	3.42	1.56	.500	Flat	.554	1.125	2.652	.582	1.326	[4]10-32 UNF-2B x .38 deep on a 3.75 B.C.	Yes	24										
	24A4-D	4.5	6.637												Yes	24										
22B-D	22B2-D	3.75	5.522	2.378											Yes	12 or 24										
22B-D INTEGRA	22B2-D	5.4	6.631	2.93											No	None										
Type Z Gearmotor																										
34R-Z	34R4-Z4/3	9.3	8.328	4.02	3.40	1.56	.500	Flat/Key	.29	1.125	2.652	.582	1.326	[4]10-32 UNF-2B x .38 deep on a 3.75 B.C.	No	12										
	34R6-Z4/3		8.345																							
	34R4-Z2		7.428																							
	34R6-Z2		7.445																							
24A-Z	24A4-Z2	5.0	6.890	2.42	3.40	1.56	.500	Flat/Key	.29	1.125	2.652	.582	1.326	[4]10-32 UNF-2B x .38 deep on a 3.75 B.C.	Yes	24										
	24A4-Z3/Z4		7.790																							
33A-Z	33A3-Z2	5.8	6.895	3.39											3.42	1.56	.500	Flat/Key	.29	1.125	2.652	.582	1.326	[4]10-32 UNF-2B x .46 deep on a 3.75 B.C.	Yes	12 or 24
	33A3-Z3		7.795																							
22B-Z	22B3-Z2	5.25	6.326	2.378	3.42	1.56	.500	Flat/Key	.29	1.125	2.652	.582	1.326	[4]10-32 UNF-2B x .46 deep on a 3.75 B.C.											No	12 or 24
	22B2-Z4	4.75	6.746																							
	22B3-Z4	5.25	7.226																							
22B-Z INTEGRA	22B3-Z2	5.3	7.435	2.93											3.42	1.56	.500	Flat/Key	.29	1.125	2.652	.582	1.326	[4]10-32 UNF-2B x .46 deep on a 3.75 B.C.	Yes	12 or 24
	22B3-Z3	5.3	8.335																							
	22B2-Z4	4.8	7.885																							
Type WX Gearmotor																										
34R-WX	34R6-WX	12.0	8.956	4.02	4.06	2.0	.625	Key	.56	1.31	3.375	.863	1.688	[4]1/4 -28 UNF-2B x .50 deep on a 4.78 B.C.	No	12										
33A-WX	33A5-WX	9.7	8.665	3.385											Yes	24										
34B-WX	34B3-WX	4.8	6.473	4.02											Yes	12 or 24										
Type E/F & FX Gearmotor																										
34R-FX	34R4-FX	11.0	8.112	4.02	4.64	2.0	.750	Key	.37	1.536	3.625	.913	1.813	[4]1/4 -28 UNF-2B x .50 deep on a 5.13 B.C.	No	12										
42R-FX	42R5-FX	14.5	9.128	4.73																						
	42R6-FX	16.5	9.565																							
48R-FX	48R6-FX	26.0	10.487	5.90																				No	24	
42A-FX	42A5-FX	14.9	9.323	4.26																				Yes	24	
	34B3-E	11.0	6.629	4.02																				No	12 or 24	
	34B4-E/F	12.0	7.129		Yes																					
34B-E/F	34B6-F	14.0	8.129											Yes												

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