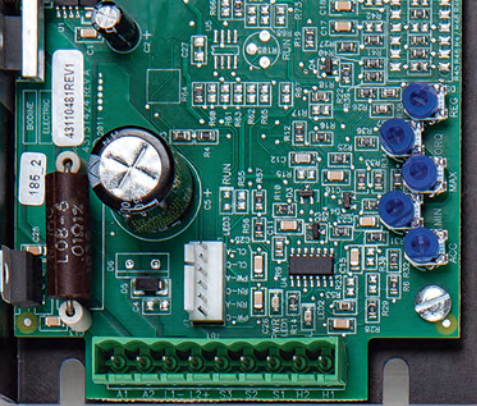
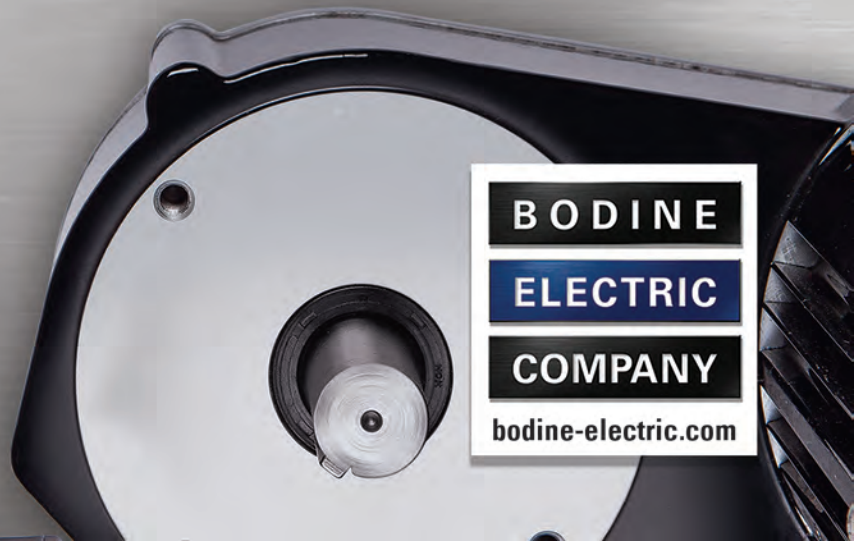
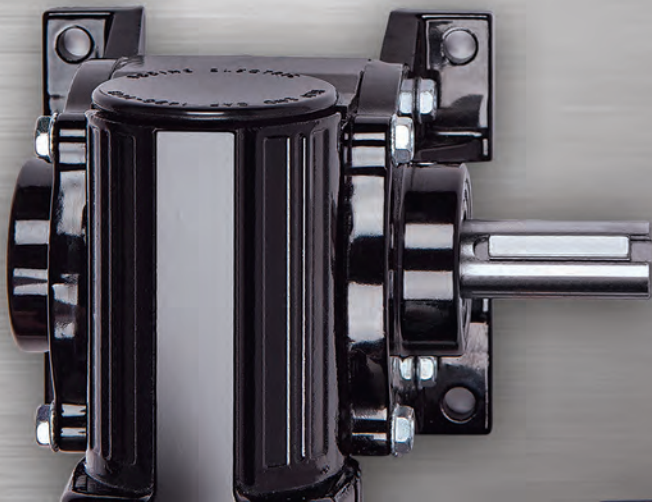
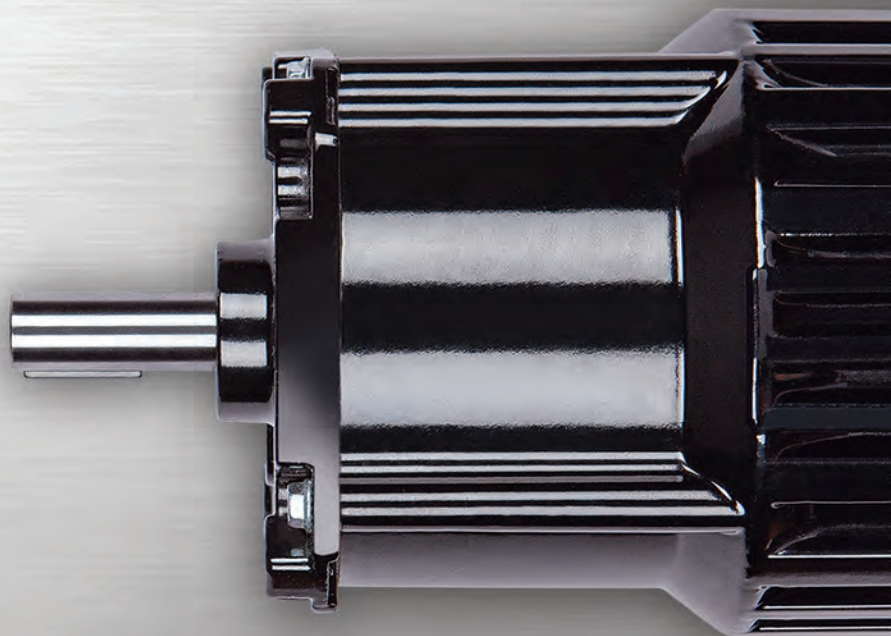




STANDARD PRODUCTS

PARALLEL SHAFT GEARMOTORS

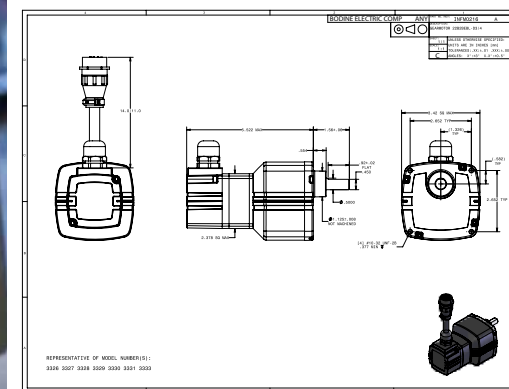
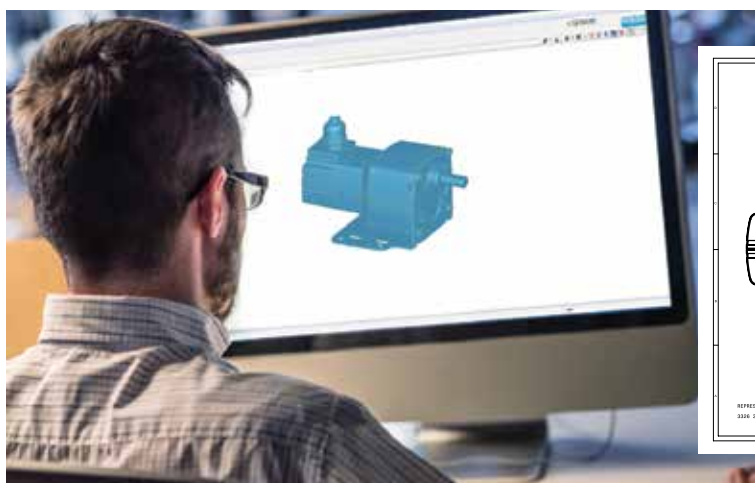
AC
PMDC
BLDC



**BODINE
ELECTRIC
COMPANY**
bodine-electric.com

For 2D/3D CAD drawings and distributor locations, go to www.bodine-electric.com

Our website features the latest product specifications, technical documents, connection diagrams and instruction manuals. Dimension drawings and 3D models can be imported from the website directly into most CAD software programs. You will also find information about Bodine's newest products, our distributor locator, and helpful Tech Tools designed to answer the most commonly asked motion control questions.



UL/CSA Safety Compliance

Products are marked cURus or UR/CSA, and most products meet CE. All products are also



RoHS compliant.

Motors and gearmotors

conform to UL standard 1004 and CSA standard C22.2 No. 100. They are documented in UL file number E47177 and CSA file number LR2797.

Electronic controls conform to UL standard 508 and CSA standard C22.2 No. 14. They are documented in UL file number E44529 and CSA file number LR26397.

Motor Options

For the comparative advantages of AC motors and gearmotors, see page 21.

Variable speed

Pacesetter AC motors

- Voltage ratings are 230 VAC, 60 Hz (3-phase) or 230/460 VAC, 60 Hz (3-phase)

Fixed-speed AC motors

- Voltage ratings are 115 VAC, 60 Hz (single-phase) or 230 VAC, 60 Hz (3-phase)
- Metric voltage ratings are 230 VAC, 50 Hz (1- or 3-phase)

Permanent Magnet DC motors

- Voltage ratings are 12/24 VDC, 24 VDC, 90/130 VDC or 130 VDC
- Metric voltage rating is 180 VDC
- Compatible with 90 V controls (90/130 VDC and 130 VDC only)

Brushless DC (ECM) motors

- Voltage ratings are 24 or 130 VDC

	Variable Speed Pacesetter Inverter Duty AC				Fixed-Speed AC				Permanent Magnet DC			Brushless DC		INTEGRA BLDC		
	30R	34R	42R	48R	K-2	30R	34R	42R	48R	24A	33A	42A	22B	34B	22B	34B
Power (HP)	1/25-1/17	1/8-1/4	3/8	1/3-3/4	1/1600- 1/200	1/40-1/30	1/15-1/5	1/12-1/4	1/5-1/2	1/50-1/7	1/16-1/3	1/4-1/2	1/16-1/5	1/5-3/8	1/16-1/8	1/4
Torque (oz-in.)	24-35	70-148	222	185-445	0.35-3.2	10-20	38-119	48-148	112-296	8-24	34-134	101-180	20-50	33-151	25-50	100
Rated Speed (rpm)	1700	1700, 1800	1700	1700, 1800	1200, 1550, 1800, 3600	1700, 1800, 3400	1700, 1800, 3400	1700, 3450	1700, 1800	2500, 11,500	2500	2500	2500, 10,000	2500, 10,000	2500	2500

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2 Year
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Most products are marked as  US



Gearmotors

Bodine Electric Company offers a wide selection of standard gearmotors, ranging from 1/200 to 3/4 HP (4 to 560 Watts). Our standard product line includes AC fixed speed and variable speed, as well as an extensive selection of permanent magnet DC, and brushless DC gearmotors, motors and controls. We offer parallel shaft, right angle, hollow shaft and planetary gearmotors, with torque ratings ranging from 1 to 1,000 lb-in. (0.1-113 Nm).



Inline and Parallel Shaft Gearmotors

60P

Inline / Planetary Gearmotors | up to 226 lb-in.

- Twice the torque of conventional helical/spur parallel shaft gearboxes of similar size
- Lower-cost alternative to high-end servo systems
- Unvented gearhousing mounts in any orientation
- Environmental protection: IP-66 (with seal kit installed)
- Permanently lubricated with high-performance lubricant
- Hardened steel gears for long life and maximum performance
- See page 36 for reference dimensions
- Contact Bodine for models with accessory shafts and mounting options for **encoders**

APPLICATION SUPPORT:
info@bodine-electric.com
 or call 773.478.3515

Permanent Magnet DC Gearmotors



Type 24A-60P

All New
PLANETARY
GEARMOTORS

U.S./Imperial Models								
Speed (rpm)	Rated Torque (lb-in.)	Rate Current (Amps)	Peak Torque (lb-in.)	Power (HP)	Gear Ratio	Radial Load (lbs.)	Product Type	Item Number
90/130VDC, Totally Enclosed, Non-ventilated, Class F Insulation								
11/15	176/226	0.56 / 0.81	315	1/23 / 1/11	162:1	145	24A4BEPM-60P3	7011
19/28	96/151		278		89:1	120	24A4BEPM-60P3	7009
27/39	72/113		254		64:1	107	24A4BEPM-60P2	7008
57/83	34/54		245		30:1	86	24A4BEPM-60P2	7006
101/147	19/30		182		17:1	72	24A4BEPM-60P2	7004
136/197	14/22		136		13:1	66	24A4BEPM-60P2	7003
216/313	10/15		91		8:1	56	24A4BEPM-60P1	7002
454/658	4.6/7.1		43		4:1	44	24A4BEPM-60P1	7001

Metric Models								
Speed (1/min)	Rated Torque (Nm)	Rate Current (Amps)	Peak Torque (Nm)	Power (Watts)	Gear Ratio (i)	Radial Load (N)	Product Type	Item Number
24VDC, Totally Enclosed, Non-ventilated, Class F Insulation								
15	26	4.1	36	63	162:1	645	24A4BEPM-60P3	7411
28	16		31		89:1	538	24A4BEPM-60P3	7409
39	12		29		64:1	480	24A4BEPM-60P2	7408
82	5.5		28		30:1	387	24A4BEPM-60P2	7406
146	3.1		20		17:1	320	24A4BEPM-60P2	7404
197	2.3		15		13:1	294	24A4BEPM-60P2	7403
313	1.5		10		8:1	249	24A4BEPM-60P1	7402
658	0.7		5		4:1	196	24A4BEPM-60P1	7401

12VDC, Totally Enclosed, Non-ventilated, Class F Insulation								
15	19	6.9	36	46	162:1	658	24A4BEPM-60P3	7211
28	11		31		89:1	547	24A4BEPM-60P3	7209
39	8		29		64:1	489	24A4BEPM-60P2	7208
82	4		19		30:1	391	24A4BEPM-60P2	7206
146	2		10		17:1	325	24A4BEPM-60P2	7204
197	1.6		8		13:1	294	24A4BEPM-60P2	7203
313	1.1		5		8:1	254	24A4BEPM-60P1	7202
658	0.5		2		4:1	196	24A4BEPM-60P1	7201

Ratings are based on operation from DC power. Performance may vary with a speed control.

- 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) Ratings¹						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.)	Torque @ 90 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	24V	130V
5.6	40	1.8	0.30	55	1/29	450	65	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	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							Analog Interface	Digital Interface³
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.

- Unvented gearhousing for universal horizontal mounting
- Permanently lubricated with high-performance lubricant
- Helical primary gear for quietness and hardened steel spur gearing on subsequent stages for high output torque and long life
- Models with accessory shafts are ideal for mounting encoders or brakes
- See page 34 for capacitors and accessories
- See page 36 for reference dimensions

Variable Speed—Pacesetter Inverter Duty AC Gearmotors



Type 34R-Z Pacesetter

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.)	Torque @ 90 Hz (lb-in.)		
9	120	1/6	0.73	180	0.9-13	10-90	constant	120	120	120	34R6BEPP-Z4	2220
19	120			90	1.8-26			120	120	120	34R6BEPP-Z4	N2222
28	120			60	2.8-39			120	120	120	34R6BEPP-Z3	N2224
57	96			30	5.5-78			96	96	96	34R6BEPP-Z3	2226
94	39			18	16-143			39	39	39	34R6BEPP-Z2	N2227
283	21			6	28-391			21	21	21	34R6BEPP-Z2	N2228

Three-Phase, Inverter Duty, Non-synchronous, 230 VAC (TENV)

Fixed Speed—AC Gearmotors



Type 34R-Z

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											
9.6	100	1/15	115	60	1	1.0	180	125	10.0/250	34R4BFCI-Z4	0449
19	100						90	125		34R4BFCI-Z4	0448
28	100						60	125		34R4BFCI-Z3	0455
57	57						30	125		34R4BFCI-Z3	0454
94	36						18	100		34R4BFCI-Z2	0453
142	24						12	100		34R4BFCI-Z2	0452
283	12						6	100		34R4BFCI-Z2	0451

CAPACITOR IS REQUIRED

Permanent Magnet DC Gearmotors



Type 24A-Z

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	
24A-Z PMDC Gearmotor												
14	100	2.6	0.48	115	1/17	180	125	24A4BEPM-Z4	N4963	4663	N4563	0163
28	92			115		90	125	24A4BEPM-Z4	N4962	N4662	N4562	0162
42	65			115		60	125	24A4BEPM-Z3	N4961	4661	N4561	0161
83	33			59		30	125	24A4BEPM-Z3	N4960	4660	N4560	0160
139	21			38		18	100	24A4BEPM-Z2	N4959	N4659	N4559	0159
208	14			25		12	100	24A4BEPM-Z2	N4958	N4658	N4558	0158
417	7			13		6	100	24A4BEPM-Z2	N4957	4657	N4557	N0157
33A-Z PMDC Gearmotor												
42	95	3.7	0.74	115	1/12	60	125	33A3BEPM-Z3	N6969	N6669	N6569	6169
83	47			59		30	125	33A3BEPM-Z3	N6968	N6668	N6568	6168
139	31			38		18	100	33A3BEPM-Z2	N6967	N6667	N6567	6167
208	20			25		12	100	33A3BEPM-Z2	N6966	N6666	N6566	6166
417	10			13		6	100	33A3BEPM-Z2	N6965	N6665	N6565	6165



Type 33A-Z

Brushless DC Gearmotors



Type 22B-Z

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	
14	100	—	0.72	115	1/11	180	110	22B3BEBL-Z4	—	—	N3463	3363
14	100	3.3	0.53	115	1/16	180	110	22B2BEBL-Z4	—	N3563	—	—
21	100	3.3	0.53	115	1/16	120	110	22B2BEBL-Z4	—	N3564	—	N3364
28	100	4.4	0.72	115	1/11	90	110	22B3BEBL-Z4	—	—	N3462	N3362
28	97	3.3	0.53	115	1/16	90	110	22B2BEBL-Z4	—	N3562	—	—
42	95	4.4	0.72	115	1/11	60	110	22B3BEBL-Z3	3661	N3561	N3461	N3361
83	52	4.4	0.72	59	1/11	30	125	22B3BEBL-Z3	N3660	N3560	N3460	N3360
139	31	4.4	0.72	38	1/11	18	125	22B3BEBL-Z2	N3659	N3559	N3459	N3359
208	20	4.4	0.72	25	1/11	12	120	22B3BEBL-Z2	N3658	N3558	N3458	3358
417	10	4.4	0.72	13	1/11	6	100	22B3BEBL-Z2	N3657	N3557	N3457	3357

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 (VSR) or digital (FV) interface option.

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

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							Analog Interface	Digital Interface
0.7-8	0.3-8	100	300	1/16	24	3.3	22B2BEBL/**-Z4	N3864	N3764
1-14	0.4-14	100	180	1/16		3.3	22B2BEBL/**-Z4	3863	N3723
2-28	0.8-28	97	90	1/16		3.3	22B2BEBL/**-Z4	N3862	N3762
3-42	1.3-42	95	60	1/11		4.4	22B3BEBL/**-Z3	N3861	N3761
7-83	2.5-83	52	30	1/11		4.4	22B3BEBL/**-Z3	3860	N3760
11-139	4.2-139	31	18	1/11		4.4	22B3BEBL/**-Z2	N3859	N3759
17-208	6.3-208	20	12	1/11		4.4	22B3BEBL/**-Z2	N3858	N3758
33-417	13-417	10	6	1/11		4.4	22B3BEBL/**-Z2	3857	N3757



Type 22B/SR-Z and 22B/FV-Z
INTEGRAMotor

up to 210 lb-in. | Parallel Shaft Gearmotors

WX

- Up to 65% more torque than previous models
- Unvented gearhousing
- Selectively hardened steel helical gears
- Synthetic lubricant
- Models with accessory shafts are ideal for mounting encoders or brakes
- Adaptor plate, model 0995, allows for 3-hole mounting configuration. See page 34
- See page 34 for capacitors and accessories
- See page 36 for reference dimensions

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-Wire-Reversible (TEFC)											
5	210	1/7	115	60	1	1.7	312	130	27.5/250	34R6BFCI-WX4	1034
10	200						172	130		34R6BFCI-WX4	1032
17	195						98	130		34R6BFCI-WX4	1029
26	195						66	130		34R6BFCI-WX3	1027
31	190						55	130		34R6BFCI-WX3	1025
39	157						44	130		34R6BFCI-WX3	1023
57	106						30	130		34R6BFCI-WX3	1021
83	77						20	65		34R6BFCI-WX2	1019
123	46						14	65		34R6BFCI-WX2	1016
181	31						9	65		34R6BFCI-WX2	1014
309	18						6	65		34R6BFCI-WX2	1012
447	9						4	65		34R6BFCI-WX2	1010



Type 34R-WX

Permanent Magnet DC Gearmotors

Speed (rpm)		Rated Torque (lb-in.)	Amps		HP		FF	Gear Ratio	Radial Load (lbs.)	Product Type ²	Accy		No Accy	
12/24V	90/130V		12/24V	90/130V	12/24V	90/130V					12/24V	90/130V	12/24V	90/130V
2.9 / 8.0	5 / 8	205	10.2	1.3 / 1.7	1/11 / 1/4	1/8 / 1/4	1.4 / 1.0	312	130	33A5BEPM-WX4	1422	1222	1452	1072
5 / 15	10 / 15	200						172	130	33A5BEPM-WX4	1420	1220	1450	1070
9 / 26	17 / 26	185						98	130	33A5BEPM-WX4	1418	1218	1448	1068
14 / 38	26 / 38	190						66	130	33A5BEPM-WX3	1416	1216	1446	1066
16 / 46	31 / 46	185						55	130	33A5BEPM-WX3	1414	1214	1444	1064
21 / 57	39 / 57	157						44	130	33A5BEPM-WX3	1412	1212	1442	1062
30 / 84	57 / 84	106						30	130	33A5BEPM-WX3	1410	1210	1440	1060
44 / 123	83 / 123	77						20	65	33A5BEPM-WX2	1408	1208	1438	1058
65 / 181	123 / 181	46						14	65	33A5BEPM-WX2	1406	1206	1436	1056
96 / 266	181 / 266	31						9	65	33A5BEPM-WX2	1404	1204	1434	1054
164 / 455	309 / 455	18						6	65	33A5BEPM-WX2	1402	1202	1432	1052
237 / 658	447 / 658	9						4	65	33A5BEPM-WX2	1400	1200	1430	1050



Type 33A-WX

Brushless DC Gearmotors

Speed (rpm)	Rated Torque (lb-in.)	Rated Current (Amps)		Motor HP	Gear Ratio	Radial Load (lbs.)	Product Type ²	Accy Shaft	No Accy Shaft	Accy Shaft	No Accy Shaft
		24V	130V					24V	130V	24V	130V
8	205	9.0	1.4	1/5	312	130	34B3BEBL-WX4	1323	1293	1123	1093
15	200				172	130	34B3BEBL-WX4	1322	1292	1122	1092
26	185				98	140	34B3BEBL-WX4	1320	1290	1120	1090
38	190				66	140	34B3BEBL-WX3	1318	1288	1118	1088
46	185				55	130	34B3BEBL-WX3	1317	1287	1117	1087
57	157				44	130	34B3BEBL-WX3	1316	1286	1116	1086
84	106				30	160	34B3BEBL-WX3	1315	1285	1115	1085
123	77				20	60	34B3BEBL-WX2	1314	1284	1114	1084
181	46				14	65	34B3BEBL-WX2	1313	1283	1113	1083
266	31				9	80	34B3BEBL-WX2	1312	1282	1112	1082
455	18				6	90	34B3BEBL-WX2	1310	1280	1110	1080
658	9				4	65	34B3BEBL-WX2	1309	1279	1109	1079



Type 34B-WX

INTEGRAmotor BLDC Gearmotors



Type 34B/SR-WX INTEGRA

Designed for Class I/Division 2
and remote & mobile applications

Speed (rpm)	Torque (lb-in.)	HP		Gear Ratio	Radial Load (lbs)	Control Input Cont. Amps		Product Type	12 VDC Model No.	24 VDC Model No.
		12 VDC	24 VDC			12 VDC	24 VDC			
8	205	1/5	1/4	312	130	19.0	11.0	34B4BEBL/SR-WX4	B3293	B3893
15	200			172	130			34B4BEBL/SR-WX4	B3292	B3892
26	185			98	140			34B4BEBL/SR-WX4	B3290	B3890
38	190			66	140			34B4BEBL/SR-WX3	M3288	M3888
46	185			55	130			34B4BEBL/SR-WX3	B3287	B3887
57	157			44	130			34B4BEBL/SR-WX3	M3286	M3886
84	106			30	160			34B4BEBL/SR-WX3	B3285	B3885
123	77			20	60			34B4BEBL/SR-WX2	B3284	B3884
181	46			14	65			34B4BEBL/SR-WX2	B3283	B3883
266	31			9	80			34B4BEBL/SR-WX2	B3282	B3882
455	18			6	90			34B4BEBL/SR-WX2	B3280	B3880
658	9			4	65			34B4BEBL/SR-WX2	B3279	M3879

"M" model numbers require a 5-piece minimum order, 20-day lead-time; "B" model numbers require a 25-piece minimum order, 25-day lead-time.



Type 34R-FX Pacesetter



Type 42R-FX Pacesetter

- FX and F-type: hardened helical gearing for quietness and high output to size ratio
- Unvented gearhousing for universal horizontal mounting
- Models with accessory shafts are ideal for mounting encoders or brakes
- See page 34 for capacitors and accessories
- See page 36 for reference dimensions

Variable Speed—Pacesetter Inverter Duty AC Gearmotors

Fixed Speed Rating						Variable Speed (SOA) Ratings¹						Product Type	230V Model No.	230/460V Model No.
Speed (rpm)	Torque (lb-in.)	HP	(230V) Amps	(230/460V) Amps	Gear Ratio	Speed Range (rpm)	Frequency Range (Hz)	Torque Type	Torque @ 10 Hz (lb-in.)	Torque @ 60 Hz (lb-in.)	Torque @ 90 Hz (lb-in.)			
34R-FX Pacesetter Gearmotor														
Three-Phase, Inverter Duty, Non-synchronous (TEFC)														
5.7	350	1/6	1.0	1.0/0.5	300	0.4-7.3	10-90	constant	350	350	350	34R4BFPP-FX4	N2256	2856
9.4	350				180	0.7-12		constant	350	350	350	34R4BFPP-FX4	2250	2850
19	350				90	1.3-24		constant	350	350	350	34R4BFPP-FX4	2251	2851
28	321				60	2.0-36		variable	256	350	350	34R4BFPP-FX3	2252	2852
57	160				30	4.0-73		variable	128	255	221	34R4BFPP-FX3	2253	2853
170	53				10	12-218		variable	43	85	74	34R4BFPP-FX2	N2254	2854
340	28				5	24-436		variable	22	44	38	34R4BFPP-FX1	N2255	2855
42R-FX Pacesetter Gearmotor														
Three-Phase, Inverter Duty, Non-synchronous (TEFC)														
5.7	270	3/8	1.9	1.9/0.95	30	5.9-77	10-90	constant	270	270	270	42R6BFPP-FX3	2260	2860
85	240				20	8.8-115		variable	187	240	240	42R6BFPP-FX3	2261	2861
113	184				15	12-153		variable	140	186	186	42R6BFPP-FX2	N2264	2864
170	123				10	18-229		variable	93	124	124	42R6BFPP-FX2	2262	2862
340	58				5	35-459		variable	48	58	58	42R6BFPP-FX1	2263	2863

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
42R-FX Fixed Speed AC Gearmotors											
Permanent Split Capacitor, Three-Wire Reversible, Non-Synchronous							CAPACITOR IS REQUIRED				
5.7	350	1/4	115	60	1	2.9	300	200	45.0/250	42R6BFCI-FX4	5671
9.4	350						180	200		42R6BFCI-FX4	5669
14	350						120	200		42R6BFCI-FX4	5668
28	350						60	200		42R6BFCI-FX3	5685
57	243						30	300		42R6BFCI-FX3	5683
85	162						20	300		42R6BFCI-FX3	5681
115	122						15	300		42R6BFCI-FX2	5682
170	81						10	300		42R6BFCI-FX2	5680
340	42						5	60		42R6BFCI-FX1	5679
Split Phase (with centrifugal switch), Non-synchronous											
5.7	350	1/6	115	60	1	3.6	300	200	—	42R5BFSI-FX4	5639
9.4	350						180	200	—	42R5BFSI-FX4	5637
14	350						120	200	—	42R5BFSI-FX4	5636
19	350						90	200	—	42R5BFSI-FX4	5635
28	321						60	200	—	42R5BFSI-FX3	0655
42	214						40	200	—	42R5BFSI-FX3	0654
57	160						30	300	—	42R5BFSI-FX3	0653
85	107						20	300	—	42R5BFSI-FX3	0652
115	80						15	300	—	42R5BFSI-FX2	0651
170	53						10	300	—	42R5BFSI-FX2	0650
340	28						5	60	—	42R5BFSI-FX1	0649



Type 42R-FX

Fixed Speed—AC Geomotors, continued

Speed (rpm)	Rated Torque (lb-in.)	Motor HP	V	Hz	Ph	Amps	Gear Ratio	Radial Load (lbs.)	Capacitor (µF/VAC)	Product Type	Model Number
48R-FX Fixed Speed AC Geomotor											
Permanent Split Capacitor, Non-synchronous						CAPACITOR IS REQUIRED					
57	270	1/3	115/230	60	1	4.0/2.0	30	300	115V=20.0/370 230V=12.5/370	48R6BFCI-FX3	N5694
85	218						20	300		48R6BFCI-FX3	N5693
113	164						15	300		48R6BFCI-FX2	N5695
170	109						10	300		48R6BFCI-FX2	N5692
340	56						5	60		48R6BFCI-FX1	N5691
Split Phase (with centrifugal switch), Non-synchronous											
57	270	1/3	115/230	60	1	4.8/2.4	30	300	—	48R6BFSI-FX3	0664
85	218						20	300	—	48R6BFSI-FX3	0663
170	109						10	300	—	48R6BFSI-FX2	0662
340	56						5	60	—	48R6BFSI-FX1	0661



Type 48R-FX

Permanent Magnet DC Geomotors

Speed (rpm)	Rated Torque (lb-in.)	Rated Current (Amps)	Peak Torque (lb-in.)	Motor HP	FF	Gear Ratio	Radial Load (lbs.)	Product Type ²	Accy Shaft	No Accy Shaft	Accy Shaft	No Accy Shaft
									12/24V		90/130V	
42A-FX Geomotor												
90/130V Class F Temperature Rating												
6 / 8	350 / 350	2.1/2.8	500	3/16 / 3/8	1.4 / 1.0	300	200	42A5BEPM-FX4	—	—	5059	5049
10 / 14	350 / 350		500			180	200	42A5BEPM-FX4	—	—	5058	5048
14 / 21	350 / 350		500			120	200	42A5BEPM-FX4	—	—	5057	5047
29 / 42	350 / 350		450			60	200	42A5BEPM-FX3	—	—	5056	5046
43 / 63	239 / 265		320			40	300	42A5BEPM-FX3	—	—	5055	5045
58 / 83	179 / 248		400			30	300	42A5BEPM-FX3	—	—	5054	5044
86 / 125	119 / 165		270			20	300	42A5BEPM-FX3	—	—	5053	5043
115 / 167	89 / 124		290			15	300	42A5BEPM-FX2	—	—	5052	5042
173 / 250	60 / 83		195			10	300	42A5BEPM-FX2	—	—	5051	5041
345 / 500	31 / 43		72			5	60	42A5BEPM-FX1	—	—	5050	5040
12/24V Class F Temperature Rating												
3 / 8	350	14	500	1/7 / 3/8	1.0	300	200	42A5BEPM-FX4	5079	5069	—	—
6 / 14	350		500			180	200	42A5BEPM-FX4	5078	5068	—	—
8 / 21	350		500			120	200	42A5BEPM-FX4	5077	5067	—	—
17 / 42	350		450			60	200	42A5BEPM-FX3	5076	5066	—	—
25 / 63	265		320			40	300	42A5BEPM-FX3	5075	5065	—	—
33 / 83	248		400			30	300	42A5BEPM-FX3	5074	5064	—	—
50 / 125	165		270			20	300	42A5BEPM-FX3	5073	5063	—	—
67 / 167	124		290			15	300	42A5BEPM-FX2	5072	5062	—	—
100 / 250	83		195			10	300	42A5BEPM-FX2	5071	5061	—	—
200 / 500	43		72			5	60	42A5BEPM-FX1	5070	5060	—	—



Type 42A5-FX

Brushless DC Geomotors

Speed (rpm)	Rated Torque (lb-in.)	Rated Current (Amps)		Peak Torque (lb-in.)	Motor HP	Gear Ratio	Radial Load (lbs.)	Product Type ^{2,3}	Accy Shaft	No Accy Shaft	Accy Shaft	No Accy Shaft
		24V	130V						24V	130V		
8.3	310	9.6	1.6	475	1/5	300	220	34B3BEBL-E4	—	N3575	—	N3375
14	341	9.6	1.6	475	1/5	180	200	34B3BEBL-E4	—	N3574	—	3374
21	350	9.6	1.6	475	1/5	120	195	34B3BEBL-E4	—	N3573	—	3373
42	270	12	2.0	421	1/4	60	240	34B4BEBL-E3	N3685	3585	N3485	3385
83	245	—	2.6	475	3/8	30	250	34B6BEBL-F3	—	—	—	N3372
83	135	12	2.0	318	1/4	30	300	34B4BEBL-E3	N3683	N3583	3483	3383
125	163	—	2.6	333	3/8	20	290	34B6BEBL-F3	—	—	—	N3371
125	90	12	2.0	220	1/4	20	300	34B4BEBL-E3	N3682	N3582	3482	3382
250	82	—	2.6	166	3/8	10	300	34B6BEBL-F2	—	—	N3470	N3370
250	45	12	2.0	106	1/4	10	300	34B4BEBL-E2	N3680	N3580	N3480	3380
500	42	—	2.6	66	3/8	5	60	34B6BEBL-F1	—	—	—	3369
500	25	12	2.0	55	1/4	5	60	34B4BEBL-E1	—	N3579	—	3379



Type 34B-E/F

INTEGRAmotor BLDC Geomotors

Speed (rpm)	Rated Torque (lb-in.)	24V Rated Current (Amps)	Peak Torque (lb-in.)	Motor HP	Gear Ratio	Radial Load (lbs.)	Product Type	Model Number ⁴
14	341	12	475	1/4	180	200	34B4FEBL/FV-F4	N3771
42	327		421		60	240	34B4FEBL/FV-F3	N3773
63	218		350		40	240	34B4FEBL/FV-F3	3774
83	163		318		30	300	34B4FEBL/FV-F3	N3775
125	109		220		20	300	34B4FEBL/FV-F3	N3776
250	54		106		10	300	34B4FEBL/FV-F2	N3778
500	28		55		5	60	34B4FEBL/FV-F1	N3779



Type 34B/FV-F
INTEGRAmotor

¹ SQA: 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 E-type only: selectively hardened all steel helical gears for long life.
⁴ Type FV INTEGRAmotors require a PWM signal from a motion controller or PLC to operate.
"N" model numbers require lead time and minimum quantities. Most FX models ship within 2-5 business days.

- Unvented gearhousing
- Flexible mounting and high torque in a compact package
- Face-mount from drive shaft side
- Models with accessory shafts are ideal for mounting encoders or brakes
- See page 34 for capacitors and terminal boxes
- See page 37 for reference dimensions

Variable Speed—Pacesetter Inverter Duty AC Gearmotors



Type 42R-HG Pacesetter

Fixed Speed Rating					Variable Speed (SOA) Ratings ¹						Radial Load (lbs.)	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.)	Torque @ 90 Hz (lb-in.)			
Three -Phase, Inverter duty, Non-synchronous (TEFC)													
16	1,000	3/8	1.9	108	2-21	10-90	variable	896	1,000	896	350	42R6BFPP-HG	2245
30	600			56	3-41			464	776	464			N2247
38	480			45	4-51			373	623	373			N2248
63	289			27	7-85			224	368	224			2249

Three-Phase, Inverter duty, Non-synchronous (TEFC)

Fixed Speed—AC Gearmotors



Type 42R-HG

Speed (rpm)	Rated Torque (lb-in.)	Motor HP	V	Hz	Ph	Amps	Gear Ratio	Radial Load (lbs.)	Capacitor (μF/VAC)	Product Type	Model Number
16	599	1/5	115	60	1	2.7	108	350	30.0/250	42R6BFCI-HG	N5255
30	310						56				5257
38	250						45				N5258
63	150						27				N5259

Permanent Split Capacitor, Non-synchronous (TEFC)

CAPACITOR IS REQUIRED

Permanent Magnet DC Gearmotors



Type 33A-HG

Speed (rpm)	Rated Torque (lb-in.)	Rated Current (Amps)		Motor HP	Gear Ratio	Radial Load (lbs.)	Product Type ²	Accy Shaft	No Accy Shaft	Accy Shaft	No Accy Shaft
		24V	90/130V					24V		90/130V	
23	680	12	—	1/3	108	350	33A7BEPH-HG	N6823	N6423	—	—
45	353							6845	N6445	—	—
56	284							N6856	6456	—	—
93	170							N6893	N6493	—	—
16 / 23	481 / 680	—	1.8 / 2.4	1/6 / 1/3	108	350	33A7BEPH-HG	—	—	N6323	6023
31 / 45	249 / 353							—	—	6345	N6045
38 / 56	200 / 284							—	—	N6356	N6056
64 / 93	120 / 170							—	—	N6393	6093

24V Models With Class F Temperature Rating

90/130V Models With Class F Temperature Rating

- Unvented gearhousing for universal horizontal mounting
- Selectively hardened steel gears for quietness and hardened steel spur gearing on subsequent stages for high output torque and long life
- Extra heavy-duty bearings and seals
- Face or base mounting
- Oversize drive shaft
- Models with accessory shafts are ideal for mounting encoders or brakes
- See page 34 for accessories
- See page 37 for reference dimensions

Variable Speed—Pacesetter Inverter Duty AC Gearmotors



Type 48R-CG Pacesetter

Fixed Speed Rating					Variable Speed (SOA) Ratings¹						Radial Load (lbs.)	Product Type	230/460V Model Number
Speed (rpm)	Torque (lb-in.)	Motor HP	(230/460V) Amps	Gear Ratio	Speed Range (rpm)	Frequency Range (Hz)	Torque Type	Torque @ 10 Hz (lb-in.)	Torque @ 60 Hz (lb-in.)	Torque @ 90 Hz (lb-in.)			
Three-Phase, Inverter duty, Non-synchronous (TEFC)													
28	1000	3/4	2.7/1.3	60	2.7-38	10-90	Constant	1,000	1,000	1,000	250	48R6BFPP-CG	9360
34	850			50	3.2-46			850	850	850			9350
47	650			36	4.4-63			650	650	650			9336
57	540			30	5.3-76			540	540	540			9330
85	360			20	8.0-114			360	360	360			9320

¹ SOA: Contact the factory for detailed speed/torque information (Safe Operating Area). See page 19.² The fifth digit of the product type changes from "B" to "F" for accessory ready models.

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

Permanent Magnet DC Gearmotors

Speed (rpm)	Rated Torque (lb-in.)	Rated Current (Amps)	Motor HP	Gear Ratio	Radial Load (lbs.)	Product Type ²	Accy Shaft	No Accy Shaft	Accy Shaft	No Accy Shaft
							24V		130V	
24V Models With Class F Temperature Rating										
38	660	18	7/16	60	250	42A7BEPM-CG	4886	4486	—	—
46	550			50			4885	4485	—	—
64	400			36			4884	4484	—	—
77	330			30			4883	4483	—	—
115	220			20			4882	4482	—	—
130V Models with Class F Temperature Rating										
42	580	3.3	7/16	60	250	42A7BEPM-CG	—	—	4786	4086
50	480			50			—	—	4785	4085
69	350			36			—	—	4784	4084
83	290			30			—	—	4783	4083
125	190			20			—	—	4782	4082



Type 42A-CG

up to 120 oz-in. | Parallel Shaft Gearmotors

A/T

- Totally enclosed, non-ventilated IP-20 rating
- Permanently lubricated, noise tested ball bearings
- Three-wire winding simplifies reversing
- Impedance protected to prevent current overload (gearmotor should not be stalled when powered up)
- Capacitor is included with gearmotor
- See page 37 for reference dimensions

Fixed Speed—AC Gearmotors

Speed (rpm)	Rated Torque (oz-in.)	Motor HP	V	Hz	Ph	Amps	Gear Ratio	Radial Load (oz.)	Capacitor (μF/VAC)	Product Type	Model Number
Permanent Split Capacitor Normal Slip, Non-synchronous									CAPACITOR IS INCLUDED		
0.9	120	1/700	115	60	1	0.07	1800	20	0.9/250	KCI-22T5	N0727
1.9	100	1/700				0.07	900		0.9/250	KCI-22T5	0726
5.6	95	1/700				0.07	300		0.9/250	KCI-22T4	0724
9	95	1/700				0.07	180		0.9/250	KCI-22T4	0723
13	95	1/450				0.083	120		1.0/250	KCI-23T4	0722
22	95	1/300				0.11	72		1.3/250	KCI-24T4	0733
26	80	1/300				0.11	60		1.3/250	KCI-24T3	0732
52	34	1/450				0.083	30		1.0/250	KCI-23A2	0719
52	59	1/300				0.11	30		1.3/250	KCI-24A2	0731
86	21	1/450				0.083	18		1.0/250	KCI-23A2	0718
86	35	1/300				0.11	18		1.3/250	KCI-24A2	0730
130	24	1/300				0.11	12		1.3/250	KCI-24A2	0729
260	12	1/300				0.11	6		1.3/250	KCI-24A2	0728
Permanent Split Capacitor High Slip, Non-synchronous									CAPACITOR IS INCLUDED		
0.9	120	1/1000	115	60	1	0.072	1800	20	0.9/250	KCI-22T5	N0746
2.3	95	1/1000				0.072	600		0.9/250	KCI-22T5	0744
4.9	95	1/1000				0.072	300		0.9/250	KCI-22T4	0743
10	88	1/800				0.083	120		1.0/250	KCI-23T4	0741
20	80	1/450				0.1	60		1.2/250	KCI-24T3	0750
40	44	1/450				0.1	30		1.2/250	KCI-24A2	0749
67	16	1/800				0.083	18		1.0/250	KCI-23A2	0737
67	27	1/450				0.1	18		1.2/250	KCI-24A2	0748
200	8.9	1/450				0.1	6		1.2/250	KCI-24A2	0747
Permanent Split Capacitor, Synchronous									CAPACITOR IS INCLUDED		
1	120	1/2000	115	60	1	0.069	1800	20	0.9/250	KYC-22T5	N0767
2	100	1/2000				0.069	900		0.9/250	KYC-22T5	N0766
3	88	1/2000				0.069	600		0.9/250	KYC-22T5	0765
10	72	1/900				0.093	180		1.3/250	KYC-24T4	0776
15	20	1/2000				0.069	120		.09/250	KYC-22T4	N0762
15	48	1/900				0.093	120		1.3/250	KYC-24T4	N0775
25	29	1/900				0.093	72		1.3/250	KYC-24T4	0774
60	15	1/900				0.093	30		1.3/250	KYC-24A2	0772
100	8.9	1/900				0.093	18		1.3/250	KYC-24A2	0771



Type K-2A/T

"L" Brackets



Model No.	Description
A 0969	Kit for E, F and FX gearmotors (will not fit 48R-F or 48R-FX)
B 0970	Kit for WX gearmotors
C 0979	Kit for 34R and 34B motors
D 0980	Kit for 34R-Z gearmotors
E 0990	Kit for 24A motors
F 5968	Kit for 30R and 33A motors; 30R-D, 24A-D, 22B-D, 24A-Z, 33A-Z and 22B-Z gearmotors

AC | DC Motor and Gearmotor Accessory Kits



Model No.	Description
A 0967	Base plate kit for 3F gearmotors
B 0977	IP-44 protection kit for 33A gearmotors and motors
C 0978	IP-44 protection kit for 42A gearmotors and motors
D 0984	Die cast terminal box kit for 34R, 42R, 48R, and 33A, 42A motors and gearmotors (<i>DC: does not fit on 12 or 24VDC models</i>)
E 0985	Oversized die cast t-box kit. Fits capacitor for use with 42R-FX gearmotors. Also fits 42R, 48R, 33A and 42A motors/gearmotors.
— 1982	Die cast terminal box with terminal block for 30R motors and gearmotors
— 1984	Die cast terminal box kit with terminal block for 34R, 42R, 48R, 33A and 42A motors/gmtrs. <i>90/130, 130V and 180VDC models only.</i>
— 5982	Die cast terminal box for 30R motors and gearmotors
F 0992	Adaptor plate for mounting brakes or encoders for 33A/42A gearmotors/motors with accy. ready shaft extensions
G 0993	Adaptor plate for mounting brakes or encoders for 22B/34B gearmotors/motors with accy. ready shaft extensions
H 0995	3-hole adaptor plate for E, F, WX and FX gearmotors. Provides drop-in replacement for competitive gearmotors.
I 0996	Base kit for 34R motors and gearmotors
J 0960	Mounting Flange for 60P planetary gearmotors (U.S.)
K 0961	Mounting Flange for 60P planetary gearmotors (Metric)
L 0962	IP-66 Seal Kit for 60P planetary gearmotors (U.S.)
M 0963	IP-66 Seal Kit for 60P planetary gearmotors (Metric)

AC Capacitors



Box-Type Capacitor



Metal Can-Type Capacitor



A, B

Select a run capacitor based on the specifications found on pages 4-21 (29-33 for metric models) and in the tables below. The AC gearmotor or motor nameplate states the required capacitance of the run capacitor, but it is also critical to specify a capacitor that has the voltage ratings as shown in these tables. When using a run capacitor that is not supplied by Bodine Electric, please make sure the voltage rating is equal to or higher than the voltage rating specified on this page. Different motor sizes might require a different minimum voltage rating for the run capacitor.

Capacitors					
Part No.	µF /VAC	Part No.	µF /VAC	Part No.	µF /VAC
Box-Type Metalized Film Capacitor (Plastic Case)		49426812 ¹	4.0/250	49401123 ¹	3.75/370
49400045 ¹	0.9/250	49401015	5.0/250	49401068 ¹	5.0/400
49400046 ¹	1.0/250	49401154 ^{1,3}	7.5/370	49401107 ¹	12.5/370
49400047 ¹	1.2/250	49401054	10.0/250	49401075 ¹	15.0/350
49400048 ¹	1.3/250	49401115 ¹	6.0/450	49401057	20.0/350
49400050 ¹	1.5/250	49401106	9.0/250	Round Metal Can-Type Capacitor	
49400051 ¹	1.6/250	49401006	12.5/250	49401124	25.0/370
49401049	0.4/440	49401156 ³	15.0/250	49401145 ²	45.0/250
49400091	1.3/440	49401113 ¹	20.0/250	49401147 ²	40.0/250
49401047	2.3/250	49401112 ¹	27.5/250	49401148 ²	10.0/450
		49401090 ¹	30.0/250		

¹ Capacitor fits inside terminal box kit model 0984. ² Capacitor fits inside oversized terminal box model number 0985. ³ New capacitor part number effective 06/2016.

Capacitor Mounting Clamps

Model No.	Description
A 54701013	Mounting clamp for round, metal can type capacitor model 49401124
B 54701029	Mounting clamp for round, metal can type capacitors: models 49401145, 49401147, and 49401148

For mounting details and dimensions, visit www.bodine-electric.com

Shaft kits for type 3F/H, 5L/H and GB/H gearmotors



Cover kits type 3F/H (left), types 5L/H and GB/H (right)



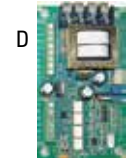
Flange mount kits type 3F/H (left), types 5L/H and GB/H (right)

Item	Model No.	Description
—	0910	Shaft kit for type 3F/H gearmotors, 1/2 inch diameter, single shaft
—	0920	Shaft kit for type 3F/H gearmotors, 1/2 inch diameter, double shaft
—	0912	Shaft kit for type 5L/H gearmotors, 5/8 inch diameter, single shaft
—	0922	Shaft kit for type 5L/H gearmotors, 5/8 inch diameter, double shaft
—	0917	Shaft kit for type GB/H gearmotors, 3/4 inch diameter, single shaft
—	0927	Shaft kit for type GB/H gearmotors, 3/4 inch diameter, double shaft
—	0950	Cover kit for type 3F/H gearmotors
—	0951	Cover kit for type 5L/H and GB/H gearmotors
—	0955	Flange mount kit for 3F/H gearmotors
—	0956	Flange mount kit for 5L/H and GB/H gearmotors

Control Accessories

BLDC
PMDC

Item	Model No.	Description
—	0888	Analog Interface Board for use with model 0810, 0830, and 0850 controls. Allows control to accept a variable voltage or current signal from user's host controller to automatically control motor speed. Inputs are optically isolated.
—	0890	Electronic Direction and Braking Board, F-B-R Kit , for use with model 0810, 0830, and 0850 controls. Allows user to change motor direction and to dynamically brake motor to a quick stop. Inputs are not optically isolated. This kit includes one F-B-R board, one cable and connector, mounting hardware, and two additional braking resistors.
—	0893	Local/Remote Switch for use with model 0810, 0830, and 0850 controls when used with accessory model 0888. Allows user to switch between automatic and manual operation.
—	0895	Switch Sealing Kit upgrades NEMA-12 brushless DC and PMDC enclosed controls to IP-44 rating.
A	3981	Cable Kit for stock 34B/FV INTEGRAMotors. Length: six feet (3 cables: power, logic and encoder).
B	3982	Extension Cable for model 3910, 3911, 3921 and 3912 controls. Extends the cable between the motor and control by six feet. Both ends are equipped with circular connections for easy connection between model 3983 cable assembly or encased control and the motor. Length: six feet.
C	3983	Connection Cable Assembly for connecting model 3910, 3921 and 3911 chassis controls to stock 130 V motors. One end of the cable is equipped with a circular connector, the other end is equipped with quick disconnects for phase leads, and a molded connector for the commutation leads. Length: 6 feet.
D	3984	Analog Interface And Isolation Module for model 3910, 3911, 3921 and 3912 controls. Provides Analog interface and isolates controls from system controller input signals which may be at different potentials.
—	43300260	Speed Potentiometer Kit for use with FPM controls. Contains 10k Ohm potentiometer, hardware, wire and connector for manually regulating motor speed.
—	43300270	Fuse and Speed Potentiometer Kit for use with model 3910 control. Contains potentiometer for manually regulating motor speed and various fuses to cover the range of motors and gearmotors which can be used with the control.



Metric Accessories



Metric "L" Brackets

Item	Model No.	Description
A	0990	Metric Kit for 24A
B	1968	Metric Kit for 33A motors, and type D and Z gearmotors
C	1970	Metric Kit for type W gearmotors
D	1969	Metric Kit for E, F and FX gearmotors (will not fit 48R-F or 48R-FX)
—	—	no "L" bracket kits are available for 34R and 34R-Z gearmotors

A



B



Metric Motor and Gearmotor Kits

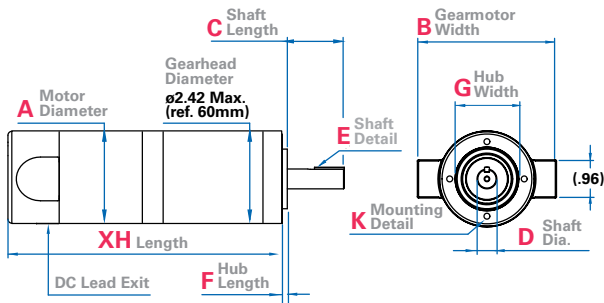
Item	Model No.	Description
A	1982	Metric die cast terminal box kit for 30R motors and gearmotors
A	1984	Metric die cast terminal kit with terminal block for 33A, 34R, 42A and 42R motors and gearmotors. For 90/130, 130V and 180VDC models only.
B	0991	Metric die cast base kit for 42A motors and gearmotors
—	0992	Metric adaptor plate for 33A and 42A motors and gearmotors

Reference Drawings and Dimensions

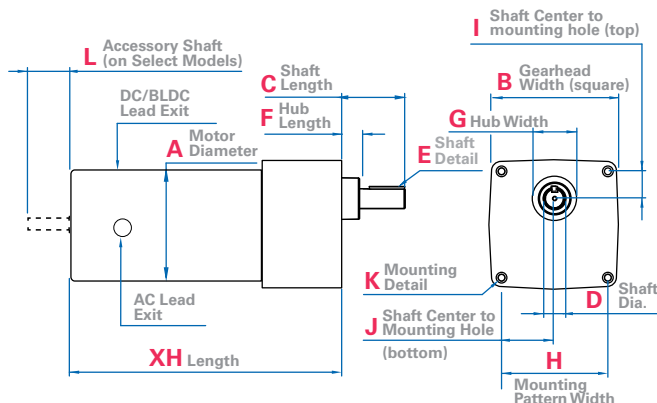
Parallel Shaft Gearmotor Dimensions

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

Inline/Planetary Gearhead Type 60P, page 4



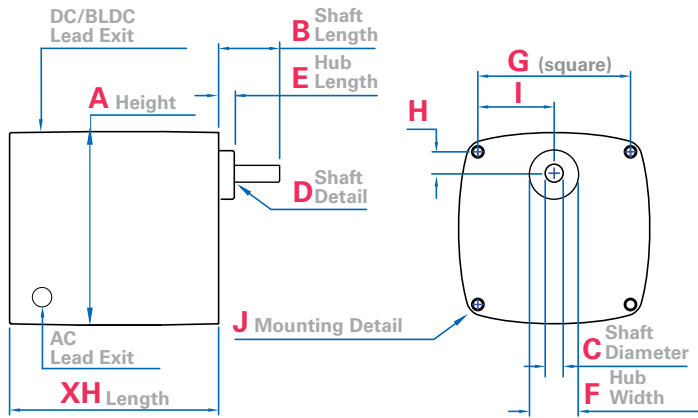
Parallel Shaft Gearhead Type D, Z, WX, E/F, pages 5-9



Gearhead Type P, D, Z, WX, FX pages 4-9

	Product Type	Wt. (lbs.)	XH Length	A Diameter (Height)	B Width	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 60P Gearmotor																												
24A-60P	24A4-60P1	4.5	7.083	2.42	3.57 Max.	1.56	.500 tapped end hole	Key	.125	1.5	90° on a ø2.000 BC	—	—	[4] #10-32 UNF-2B	No	24												
	24A4-60P2	5.0	7.693																									
	24A4-60P3	5.5	8.303																									
24A-60P Metric	24A4-60P1	2.0kg	180mm	61.5mm	91mm Max.	35mm	14mm h6	Key	3mm	40mm h7	90° on a ø52mm BC	—	—	[4] M5x0.8-6h	No	—												
	24A4-60P2	2.3kg	195mm																									
	24A4-60P3	2.5kg	211mm																									
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																								
	33A3-Z3		7.795																									
22B-Z	22B3-Z2	5.25	6.326	2.378										[4]10-32 UNF-2B x .46 deep on a 3.75 B.C.	Yes	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										[4]10-32 UNF-2B x .46 deep on a 3.75 B.C.	Yes	None												
	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	4.73																								
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										
34B-E/F	34B4-E/F	12.0	7.129														Yes											
	34B6-F	14.0	8.129														Yes											

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



Gearhead Type K-2A/T, 30R-D, pages 4-5

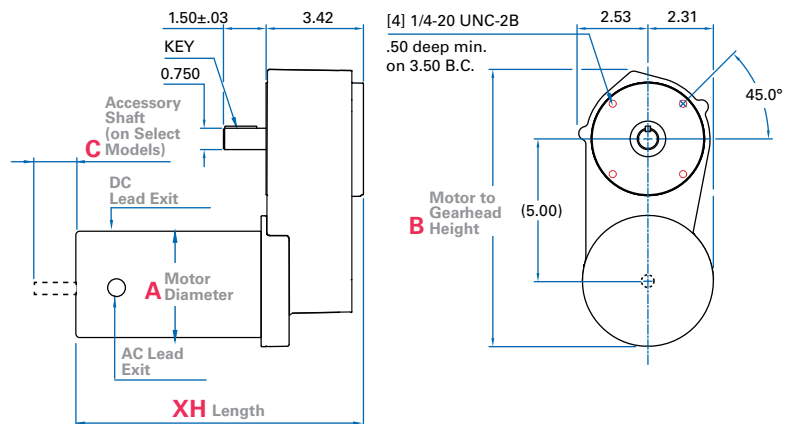
	Product Type	Wt. (lbs.)	XH Length (square)	A Height (square)	B Shaft Length	C Shaft Diameter	D Shaft Detail	E Hub Length	F Hub Width	G Mounting Pattern Width	H Shaft Center to Mounting Hole	I Shaft Center to Mounting Hole	J Mounting Detail	Lead/ Cord Length (in.)
Type K-2 Gearmotor														
K-2T	22	2.2	2.539	2.38	1.00	.250	Flat	.255	.52	1.900	.356	.950	[2]8-32 UNC-2A	12
	23	2.4	2.664											
	24	2.7	3.023											
K-2A	23	2.3	2.507	2.38	1.00	.250	Flat	.255	.52	1.900	.356	.950	[2]8-32 UNC-2A	12
	24	2.6	2.866											
Type 30R-D Gearmotor														
30R-D	30R1	5.8	5.242	3.45	1.56	.500	Flat	.554	1.125	2.652	.582	1.326	[4]10-32 UNF-2B x .38 deep Max.	12
	30R2	6.3	5.492											
	30R4	7.5	6.000											

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

Gearhead Type HG, page 10

	Product Type	Weight (lbs.)	XH Length	A Diameter	B Height	C Acc'y Shaft	Lead/Cord Length (in.)
42R-HG	42R6-HG	9.5	9.855	4.73	9.85	No	12
33A-HG	33A7-HG	10.5	10.547	3.39	9.80	Yes	24

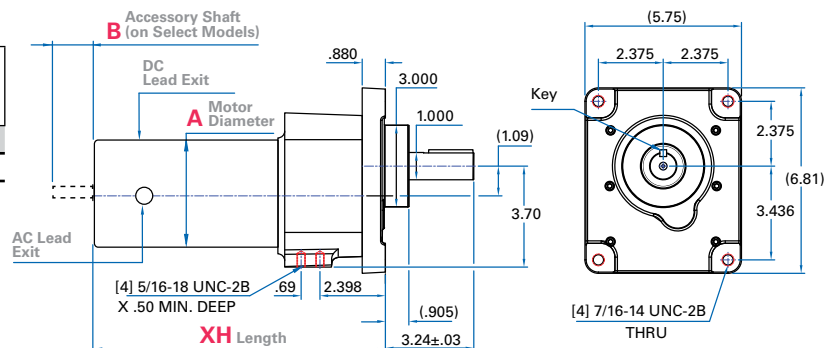
Only the first four characters of the product type are relevant to dimensions



Gearhead Type CG, page 11

	Product Type	Weight (lbs.)	XH Length	A Diameter	B Acc'y Shaft	Lead/Cord Length (in.)
48R-CG	48R6-CG	34	12.849	5.917	No	12
42A-CG	42A7-CG	29	12.07	4.262	Yes	24

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



Standard products for demanding applications



Hollow Shaft Gearmotors and Accessories

Hollow shaft gearmotors connect directly to the driven load, reducing the overall space required by the gearmotor. Get the flexibility of Bodine's hollow shaft gearmotors without expensive couplings and mounting hardware.

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- Single- or double-output stainless steel shaft kits
- Face-mounting flanges
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Bodine filtered and unfiltered speed controls provide optimized performance for a wide range of gearmotors and motors. Match a Bodine gearmotor and control and get an extended two-year system warranty. Chassis and enclosed models are available.

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