

Brushless DC Gearmotors



Type 22B-3N

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			
		42	37						5.9	1.0	147	1/8	60	100
62	37	123	40	90	3666	3566	3422	3322						
125	35	74	20	80	3667	3567	3423	3323						
250	22	46	10	70	3668	3568	3424	3324						
500	11	23	5	60	3669	3569	3425	3325						

INTEGRAmotor BLDC Gearmotors



Type 22B/SR-3N INTEGRAmotor

Motor Output				Control Input			Product Type ²	Model Number	
Speed Range (rpm)		Torque (lb-in.)	Gear Ratio	Motor HP	Volts (VDC)	Continuous Amps		Type SR	Type FV
Type SR	Type FV							Analog Interface	Digital Interface ³
3-42	1.3-42	37	60	1/8	24	5.9	22B4BEBL/**-3N	3865	3765
5-62	2-62	37	40					3866	3766
10-125	4-125	35	20					3867	3767
20-250	7.5-250	22	10					3868	3768
40-500	15-500	11	5					3869	3769

Hollow Shaft



Type 22B/SR-3F/H INTEGRAmotor Hollow Shaft

3-42	1.3-42	37	60	1/8	24	5.9	22B4BEBL/**-3F/H	8865	8765
5-62	2-62	37	40					8866	8766
10-125	4-125	35	20					8867	8767
20-250	7.5-250	22	10					8868	8768
40-500	15-500	11	5					8869	8769

- Unvented gearhousing for universal horizontal mounting
- Permanently lubricated with high-performance lubricant
- Bronze gear for high shock load capability
- Hardened and ground worm for high strength and long life
- See Page 36 for capacitors and terminal boxes
- See page 42 for reference dimensions

Fixed Speed—AC Gearmotors



Type 34R-5R



Type 42R-5L

Speed (rpm)	Rated Torque (lb-in.)	Motor HP	V	Hz	Ph	Amps	Gear Ratio	Radial Load (lbs.)	Capacitor (μF/VAC)	Product Type	Model Number
34R-5R Permanent Split Capacitor, Non-synchronous, Class B Temperature Rating (TEFC)										CAPACITOR IS REQUIRED	
28	33	1/15	115	60	1	1.0	60	50	10.0/250	34R4BFCI-5R	0469
43	49						40	50			0468
85	32						20	50			0466
170	18						10	30			0465
42R-5L Permanent Split Capacitor, Non-synchronous, Class B Temperature Rating (TEFC)										CAPACITOR IS REQUIRED	
43	77	1/8	115	60	1	1.7	40	80	12.5/250	42R4BFCI-5L	0627
57	75						30	80			0626
85	54						20	80			0624
170	31						10	10			0623
42R4-5L Split Phase, Non-synchronous, Class B Temperature Rating (TEFC)											
43	77	1/8	115	60	1	3.0	40	80	—	42R4BFSI-5L	0620
57	75						30	80			0619
85	54						20	80			0618
170	31						10	10			0617

Permanent Magnet DC Gearmotors

Speed (rpm)	Rated Torque (lb-in.)	130V Rated Current (Amps)	Peak Torque (lb-in.)	Motor HP	FF	Gear Ratio	Radial Load (lbs.)	Product Type	Model Number
33A-5R 130V Models With Class B Temperature Rating, Grease Lubrication									
50	45	0.71	118	1/12	1.0	40	80	33A3BEPM-5R	6128
67	41		83			30	80		6127
100	29		44			20	80		6126
200	17		23			10	80		6125
33A-5L 130V Models With Class F Temperature Rating, Oil Lubrication									
50	77	1.4	179	1/6	1.0	40	80	33A5BEPM-5L	6119
67	75		169			30	80		6118
100	63		159			20	80		6117
200	37		91			10	80		6116
42A-5L 130V Models With Class F Temperature Rating, Oil Lubrication									
33	117	1.3	185	1/6	1.0	60	80	42A4BEPM-5L	4120
50	77		177			40	80		4119
67	75		169			30	80		4118
100	63		159			20	80		4117
200	37		91			10	80		4116



Type 33A-5R



Type 42A-5L

up to 121 lb-in. | Right Angle Gearmotors

5N/5L

- *Type 5N only:* Needle bearings on driveshaft for high radial load capacity and long life
- *Type 5L/H only:* Ball bearings for high radial load and long life
- Unvented gearhousing for universal horizontal mounting
- Bronze worm gear for high shock load capability
- Hardened and ground worm for strength and long life
- See Page 36 for capacitors and terminal boxes
- See pages 42 and 44 for reference dimensions

Variable Speed—Pacesetter Inverter Duty AC Gearmotors

Fixed Speed Rating						Variable Speed (SOA) Ratings ¹						Product Type	230V Model No.	230/460V Model No.
Speed (rpm)	Torque (lb-in.)	HP	(230V) A	(230/460V) 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.)			
42R-5N Gearmotor														
<i>Three-Phase, Inverter Duty, Non-synchronous (TEFC)</i>														
23	121	3/8	1.90	1.90/0.95	75	2.4-31	10-90	constant	116	116	116	42R6BFPP-5N	2270	2870
43	113				40	4.4-57		constant	109	109	109		2271	2871
57	109				30	5.9-77		constant	104	104	104		2275	2875
85	103				20	8.9-115		constant	98	98	98		2272	2872
170	101				10	18-229		variable	66	105	101		2273	2873
340	54				5	35-458		variable	38	68	59		2274	2874
42R-5L/H Hollow Shaft Gearmotor														
<i>Three-Phase, Inverter Duty, Non-Synchronous (TEFC)</i>														
23	121	3/8	1.90	1.90/0.95	75	2.4-31	10-90	variable	121	121	116	42R6BFPP-5L/H	2470	2670
43	113				40	4.4-57		constant	109	109	109		2471	2671
57	109				30	5.9-77		constant	104	104	104		2475	2675
85	103				20	8.9-115		constant	98	98	98		2472	2676
170	101				10	18-229		variable	66	105	101		2473	2673
340	54				5	35-458		variable	38	68	59		2474	2674



Type 42R-5N Inverter Duty



Type 42R-5L/H

¹ SOA: Contact the factory for detailed speed/torque information (Safe Operating Area). See page 21; ² The fifth character of the product type changes from "B" to "F" for accessory ready models; ³ Type FV INTEGRMotors require a PWM signal from a motion controller or PLC to operate

Fixed Speed—AC Gearmotors



Type 42R-5N

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											
CAPACITOR IS REQUIRED											
38	113	1/6	115	60	1	2.1	40	180	15.0/350	42R5BFCI-5N	0678
75	81						20				0677
150	47						10				0672
300	25						5				0670
Split Phase (with centrifugal switch), Non-synchronous											
43	113	1/6	115	60	1	3.6	40	180	—	42R5BFSI-5N	0648
85	75						20		0647		
170	43						10		0646		
340	23						5		0645		
Three-phase, Non-synchronous											
43	113	1/4	230	60	3	1.3	40	180	—	42R5BFPP-5N	0634
85	103						20		0633		
170	67						10		0630		
340	36						5		0629		

Permanent Magnet DC Gearmotors



Type 42A-5N

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							12/24V	90/130V		
42A-5N Gearmotor													
12/24V Models With Class F Temperature Rating													
25/62	109	—	—	177	3/16 / 7/16	1.0	40	120	42A5FEPM-5N	5838	5738	—	—
33/83	104	—	—	169			30			5837	5737	—	—
50/125	98	—	—	159			20			5836	5736	—	—
100/250	80	—	—	91			10			5835	5735	—	—
200/500	43	—	—	49	5	5834	5734	—	—				
90/130V Models With Class F Temperature Rating													
45/62	109	—	—	177	3/16 / 1/4	1.4 / 1.0	40	120	42A5BEPM-5N	—	—	4538	4138
60/83	104	—	—	169			30			—	—	4537	4137
90/125	83	—	1.9/1.8	159			20			—	—	4536	4136
180/250	44	—	—	91			10			—	—	4535	4135
360/500	24	—	—	49	5	—	—	4534	4134				



Type 33A-5L/H Hollow Shaft

33A-5L/H Hollow Shaft Gearmotor													
90/130V Models With Class F Temperature Rating													
43 / 62	84 / 109	—	—	177	1/8 / 1/4	1.4 / 1.0	40	120	33A5BEPM-5L/H	—	—	—	6738
58 / 83	75 / 100	—	—	169			30			—	—	—	6737
86 / 125	54 / 78	—	1.4 / 1.8	159			20			—	—	—	6736
173 / 250	31 / 42	—	—	91			10			—	—	—	6735
345 / 500	17 / 22	—	—	49	5	—	—	—	6734				

SCR Rated—Permanent Magnet DC Gearmotors



Type 33A-5L/H / SCR Rated

90V and 180VDC gearmotors with a maximum rated armature speed of 2500 rpm.

Speed (rpm)	Rated Torque (lb-in.)	Rated Current (Amps)		Form Factor		Motor HP		Gear Ratio	Peak Torque (lb-in.)	Radial Load (lbs.)	Product Type	Model Number	
		90V	180V	90V	180V	90V	180V					90V	180V
33	89	1.6	0.8	1.4	1.4	1/7	1/7	75	190	120	33A5BEPM-5L/H	1526	1516
63	68							40	177	120	33A5BEPM-5L/H	1525	1515
83	61							30	169	120	33A5BEPM-5L/H	1524	1514
125	47							20	159	120	33A5BEPM-5L/H	1523	1513
250	25							10	91	120	33A5BEPM-5L/H	1522	1512
500	14							5	49	120	33A5BEPM-5L/H	1521	1511

SCR Rated Permanent Magnet DC Gearmotors

We define “SCR Rated” as a permanent magnet DC gearmotor that is designed to operate with an unfiltered SCR speed control while delivering similar speed and torque performance as a PMDC gearmotor that is designed to be operated from a filtered DC speed control or from a PWM speed control. SCR rated PMDC gearmotors or motors are designed to remain within their safe operating temperature range while delivering full rated torque over the entire speed range (when operated with an unfiltered SCR speed control). This is in contrast to PWM-rated PMDC gearmotors or motors which would need to be operated at reduced torque if they were operated with an unfiltered SCR speed control.

Brushless 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	
34B-5N Right Angle Gearmotor												
62	109	—	2.7	174	3/8	40	220	34B6BEBL-5N	—	—	—	3396
62	79	12	2.0	174	1/4	40	230	34B4BEBL-5N	3691	3591	3491	3391
62	74	9.6	1.5	174	1/5	40	230	34B3BEBL-5N	—	3586	—	3386
83	104	—	2.6	166	3/8	30	210	34B6BEBL-5N	—	—	—	3397
83	75	12	2.0	166	1/4	30	210	34B4BEBL-5N	3692	3592	3492	3392
83	70	9.6	1.6	166	1/5	30	210	34B3BEBL-5N	—	3587	—	3387
125	98	—	2.6	156	3/8	20	180	34B6BEBL-5N	—	—	—	3398
125	75	12	2.0	156	1/4	20	180	34B4BEBL-5N	3693	3593	3493	3393
125	59	9.6	1.5	156	1/5	20	180	34B3BEBL-5N	—	3588	—	3388
250	64	—	2.7	161	3/8	10	140	34B6BEBL-5N	—	—	—	3399
250	42	12	2.0	161	1/4	10	140	34B4BEBL-5N	3694	3594	3494	3394
250	33	9.6	1.6	140	1/5	10	150	34B3BEBL-5N	—	3589	—	3389
500	36	—	2.6	142	3/8	5	120	34B6BEBL-5N	—	—	—	3378
500	24	12	2.0	94	1/4	5	120	34B4BEBL-5N	3695	3595	3495	3395
500	18.6	9.6	1.6	74	1/5	5	120	34B3BEBL-5N	—	3590	—	3390



Type 34B-5N

INTEGRAmotor BLDC Gearmotors

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 ³
63	104	12	—	1/4	40	230	34B4FEBL/FV-5N	3780
83	95		—		30	210	34B4FEBL/FV-5N	3781
125	73		—		20	180	34B4BEBL/FV-5N	3782
250	44		—		10	140	34B4BEBL/FV-5N	3783
500	24		—		5	120	34B4BEBL/FV-5N	3784



Type 34B/FV-5N INTEGRAmotor

up to 121 lb-in. | Right Angle Gearmotors

5F

- Unvented gearhousing for universal horizontal mounting
- Bronze worm gear for high shock load capability
- Hardened and ground worm for strength and long life
- Models with accessory shafts are ideal for mounting encoders or brakes
- See Page 36 for capacitors and terminal boxes
- See page 42 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											
19 / 23	121 / 102	1/9	115	50 / 60	1	1.8 / 1.4	75	80	12.5 / 250	34R6BFCL-5F	0524
23 / 28	111 / 93						60				0523
28 / 34	104 / 87						50				0522
35 / 43	93 / 78						40				0521
47 / 57	83 / 70						30				0519
70 / 85	60 / 50						20				0518
93 / 113	49 / 41						15				0514
140 / 170	35 / 29						10				0513
280 / 340	19 / 16						5				0511



Type 34R-5F

Permanent Magnet DC Gearmotors

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
		24V	130V							24V		130V	
62	55	5.3	0.91	118	1/8	1.0	40	80	33A5BEPM-5F	6824	6124	6544	6144
125	38			83			20			6825	6115	6542	6142
250	21			44			10			6822	6122	6541	6141
500	11			23			5			6820	6121	6540	6140

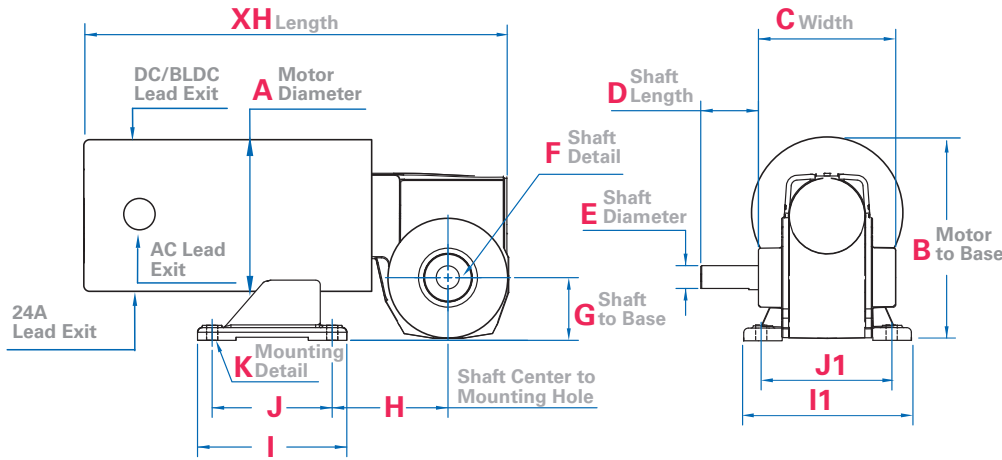


Type 33A-5F

These models feature sleeve bearings on the driveshaft.

¹ SOA: Contact the factory for detailed speed/torque information (Safe Operating Area). See page 21; 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

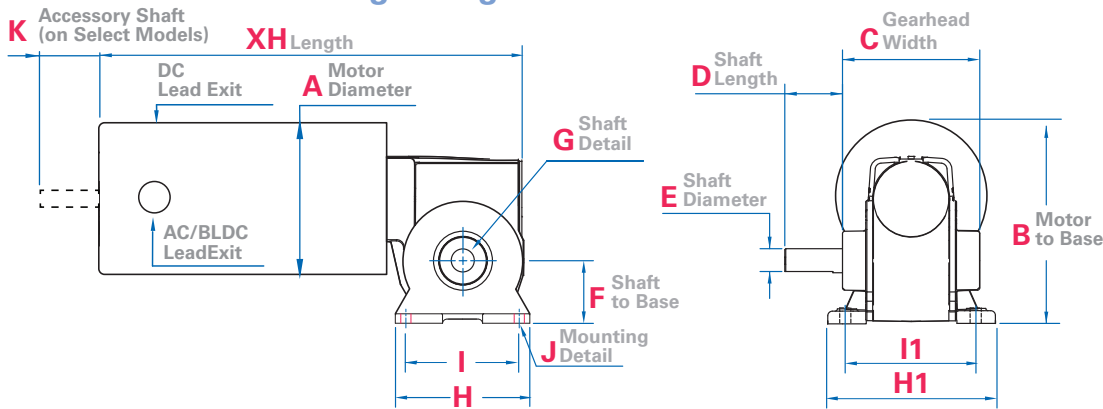
Right Angle Gearmotor Dimensions



Gearhead Type 3F, 5R/5L, pages 14-16 (Mounts from Motor)

	Weight (lbs.)	XH Length	A Dia-meter	B Motor to Base	C Width	D Shaft Length	E Shaft Diameter	F Shaft Detail	G Shaft to Base	H Shaft Center To Mounting Hole	I Base Length	I1 Base Width	J Mounting Hole Length	J1 Mounting Hole Width	K Mounting Detail	Cord/Lead Length (in.)
Type 3F Gearmotor																
24A4-3F	5.3	7.422	2.42	3.57	2.871	1.00	.500	Flat	1.28	3.14	2.50	3.62	1.25	2.94	[4] ø.28	24
Type 5R Gearmotor																
34R4-5R	11.5	9.206	4.02	5.24	3.568	1.50	.625	Key/Flat	1.63	3.01	3.88	4.38	3.12	3.38	[4] ø.29	12
33A3-5R	9.0	8.651	3.39	4.92												24
Type 5L Gearmotor																
42R4-5L	13.5	9.54	4.73	5.57	3.568	1.50	.625	Key/Flat	1.56	2.856	4.38	5.02	3.62	4.00	[4] ø.30	12
42A4-5L	14.1	9.635	4.26	5.54												24

Right Angle Gearmotor Dimensions



Gearmotor Type 5N, 5F, 5H, pages 15, 17, 18 (Mounts from Gearhead with Feet)

	Product Type	Wt. (lbs.)	XH Length	A Dia-meter	B Motor to Base	C Gearhead Width	D Shaft Length	E Shaft Diameter	F Shaft to Base	G Shaft Detail	H Base Length	H1 Base Width	I Mounting Hole Length	I1 Mounting Hole Width	J Mounting Detail	K Acc'y Shaft	Cord/Lead Length (in.)
Type 5N Gearmotor																	
42R-5N	42R5-5N	15.5	10.103	4.73	5.64	3.568	1.50	.625	1.67	Key/Flat	3.56	3.81	3.00	3.25	[4]ø .271/.266 Holes	No	12
	42A-5N	42A5-5N	14.3													10.198	4.62
34B-5N	34B3-5N	9.0	7.723	4.02	5.26	3.568	1.50	.625	1.67	Key/Flat	3.56	3.81	3.00	3.25	[4]ø .271/.266 Holes	No	12 or 24
	34B4-5N	10.0	8.223													Yes	
	34B6-5N	12.0	9.233													No	
Type 5F Gearmotor																	
34R-5F	34R6-5F	12.0	10.206	4.02	5.28	3.568	1.50	.625	1.67	Key/Flat	3.56	3.81	3.00	3.25	[4]ø .271/.266 Holes	No	12
33A-5F	33A5B-5F	9.9	9.711	3.39	4.96											Yes	24
	33A5F-5F	9.9	9.701													No	
Type 5H Gearmotor																	
48R-5H	48R6-5H	40.0	12.928	5.90	8.07	4.723	2.38	.750	3.000	Key	5.62	6.263	3.875	5.373	[4]ø.41/.44 Holes	No	12
42A-5H	42A7-5H	24.4	12.947	4.26	7.25											Yes	24

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