2024

BODINE

GEARMOTORS | MOTORS | CONTROLS **PRODUCT OVERVIEW**

















BODINE
ELECTRIC
COMPANY

bodine-electric.com

DRIVING OUR CUSTOMER'S SUCCESS



From our first motor in 1905 to today's solar powered solutions for the energy industry, Bodine has helped customers in many industries solve application challenges, develop gearmotor and drive solutions, and deliver high-quality products.

INDUSTRIES AND APPLICATIONS



PACKAGING AND LABELING

We supply rugged, high-performance gearmotor solutions to many leading OEMs in the packaging industry. Bodine offers over 1,400 standard products with gear ratios from 4:1 to 3600:1, torque to 1535 lb-in (174Nm) and horsepower up to ¾ hp (560W). Most gear motors are available with either AC, PMDC or Brushless DC (EC) windings.



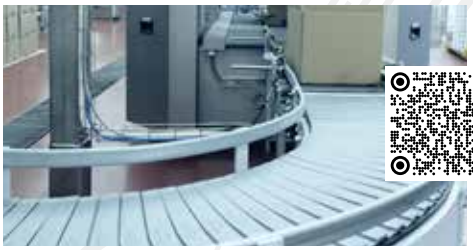
LOW VOLTAGE & SOLAR POWER

Bodine low-voltage gearmotors, motors and controls are designed with battery and solar power use in mind. Whether it is agricultural equipment, a warehouse automation robot (AGV/AMR), a portable medical device, or a chemical injection pump in a remote gas or oil field, we'll deliver the performance you need..



MEDICAL AND LABORATORY

Bodine gearmotors drive everything from complex diagnostic machinery, patient lifts and beds, to medical stirrers and centrifuges. Our gearmotors, motors and controls provide efficient and reliable power for a wide range of medical and lab applications.



INDUSTRIAL AUTOMATION / CONVEYORS

Whether you need the maintenance-free performance of variable-speed AC 3-phase, Inverter-Duty gearmotors, the high starting torque of a PMDC geared motor, or a combination of both with our brushless DC products, we have the right drive solution for your industrial automation or conveyor application.



CHEMICAL PROCESS, OIL & GAS

Bodine offers a large selection of CI/D1 (IP-66) and CI/D2 (IP-44) gearmotors and motors for hazardous locations with AC inverter-duty, PSC, and Low-Voltage Brushless DC (12V or 24V) windings, including a family of BLDC INTEGRA gearmotors with built-in speed controls for remote or off-grid operation (IP-44).



FOOD EQUIPMENT

From pizza conveyor ovens, to pita bread production, from commercial hamburger ovens to mixers, pumps and filling stations, Bodine has a long and successful history in many food processing applications. We offer several AC, BLDC and PMDC models that are IP-66 rated and can withstand moisture, grime and water jets.

STANDARD PRODUCTS — (All Ratings Are for Continuous Duty Operation)

PARALLEL SHAFT GEARMOTORS

EXPLORE ►

AC Parallel Shaft | DC Parallel Shaft | BLDC Parallel Shaft

≤40 lb-in.

Type 30R-D



Type 24A-D



Type 22B-D



TYPE D	Power (HP)	Torque (lb-in.)	Speed (rpm)
Variable Speed AC (three-phase, inverter-duty)			
30R-D	1/25-1/17	7.4-40	9-142
Fixed Speed AC (single-phase)			
30R-D	1/50-1/30	3-40	3.8-285
Permanent Magnet DC			
24A-D	1/29-1/17	3.3-40	5.6-417
Brushless DC			
22B-D	1/16	5.8-40	14-417

≤120 lb-in.

Type 34R-Z



Type 24A-Z



Type 33A-Z



Type 22B-Z



TYPE Z	Power (HP)	Torque (lb-in.)	Speed (rpm)
Variable Speed AC (three-phase, inverter-duty)			
34R-Z	1/6	21-120	9-283
Fixed Speed AC (single-phase)			
34R-Z	1/15	12-100	9.6-283
Permanent Magnet DC			
24A-Z (24/130V)	1/17	7-100	14-417
24A-Z (90V/180V)	1/19 | 1/20	6-120	14-417
33A-Z (24/130V)	1/12	10-95	42-417
33A-Z (90/130V)	1/7	19-120	42-417
Brushless DC			
22B-Z	1/16-1/11	10-100	14-417

≤210 lb-in.

Type 34R-WX



Type 34R-WX



Type 34B-WX



TYPE WX	Power (HP)	Torque (lb-in.)	Speed (rpm)
Variable Speed AC (three-phase, inverter-duty)			
34R-WX (115V)	1/7	9-210	5-447
Fixed Speed (single-phase) AC			
34R-WX	1/6	9-210	5-447
Permanent Magnet DC			
33A-WX (12V)	1/11	9-205	2.9-237
33A-WX (24V)	1/4	9-205	8-658
33A-WX (90V/180V)	1/7	9-205	8-658
33A-WX (130V)	1/7	9-205	8-658
Brushless DC			
34B-WX (24, 130V)	1/5	9-205	8-658

≤226 lb-in.

Type 24A-60P



Type 22B-60P



TYPE 60P (Planetary)	Power (HP)	Torque (lb-in.)	Speed (rpm)
Permanent Magnet DC			
24A-60P (12, 24, 90/130V)	1/23-1/11	4.6-226	11-658
Brushless DC			
22B-60P (24, 130V)	1/8	11-226	15-658

≤350 lb-in.

Type 42R-FX



Type 48R-FX



Type 42A5-FX



Type 34B-FX



TYPE E, F and FX	Power (HP)	Torque (lb-in.)	Speed (rpm)
Variable Speed AC (three-phase, inverter-duty)			
34R-FX	1/6	28-350	5.7-340
42R-F	3/8	58-270	57-340
Fixed Speed AC (single-phase)			
42R-FX	1/4	25-341	5.7-340
48R-FX	1/3	56-270	57-340
Permanent Magnet DC			
42A-FX (12/24V)	1/7-3/8	43-350	3-500
42A-FX (90/130V)	3/16-3/8	31-350	6-500
42A-FX (90/180V)	1/4	25-350	8.3-500
Brushless DC			
34B-E/F	1/5-1/4	28-350	8.3-500

≤1000 lb-in.

Type 48R-CG



Type 42A-CG



TYPE CG	Power (HP)	Torque (lb-in.)	Speed (rpm)
Variable Speed AC (three-phase, inverter-duty)			
48R-CG	3/4	220-1000	28-85
Permanent Magnet DC			
42A-CG (24V)	7/16	220-660	38-115
42A-CG (130V)	7/16	190-580	42-125

≤1020 lb-in.

Type 42R-HG/H



Type 42R-HG



Type 42A-HG/H



Type 42A-HG



TYPE HG	Power (HP)	Torque (lb-in.)	Speed (rpm)
Variable Speed AC (three-phase, inverter-duty), Hollow Shaft			
42R-HG/H	3/8	294-1020	16-63
Variable Speed AC (three-phase, inverter-duty)			
42R-HG	3/8	294-1020	16-63
Fixed Speed AC (single-phase)			
42R-HG	1/5	155-621	16-63
Permanent Magnet DC, Hollow Shaft			
33A-HG/H (12V)	1/5	104-416	23-93
33A-HG/H (24V)	1/3	176-702	23-93
33A-HG/H (90V)	1/4	131-524	23-93
33A-HG/H (130V)	1/3	176-702	23-93
33A-HG/H (180V)	1/5	104-416	23-93
Permanent Magnet DC			
33A-HG (24V)	1/3	170-680	23-93
33A-HG (90/130V)	1/6 | 1/3	120-680	16-93

GEARMOTORS FOR HAZARDOUS LOCATIONS

≤350 lb-in.

Type 34B/SR-WX



Type 34R-FX CI/D2



Types 34R-FX, 34B-FX CI/D1



Types 34R, 34B CI/D1 (motor)



TYPE WX and FX	Power (HP)	Torque (lb-in.)	Speed (rpm)
Class I Division 2 INTEGRA BLDC			
34B/SR-WX (12, 24VDC)	1/5-1/4	9-205	8-658
CI/ D2 Variable Speed AC (three-phase, inverter-duty)			
34R-FX (230/460VAC)	1/6	28-350	5.3-320
Class I Division 2 Fixed Speed AC (single-phase)			
34R-FX (115VAC)	1/7	24-350	5.7-340
CI/D1 Variable Speed AC (three-phase, inverter-duty)			
34R-FX (230, 460VAC)	1/4	46-350	5.3-320
Class I Division 1 BLDC			
34B-FX (12, 24VDC)	0.47, 0.60	58-350	7.3-560
CI/D1 Variable Speed AC (3-ph, inverter-duty) Motors w/o Gearing			
34R (230, 460VAC)	1/4	9.9	1600
Class I Division 1 BLDC Motors without Gearing			
34B (12, 24VDC)	0.47, 0.66	13.4, 14.8	2200, 2800

RIGHT ANGLE GEARMOTORS

EXPLORE ►

AC Right Angle | **DC Right Angle** | **BLDC Right Angle**

≤37 lb-in.

Type 30R-3N

Type 34R-3F

Type 34R-3F/H



TYPE 3N and 3F	Power (HP)	Torque (lb-in.)	Speed (rpm)
Variable Speed AC (three-phase, inverter-duty)			
30R-3N	1/17	8-37	28-340
Fixed Speed AC (single-phase)			
34R-3F	1/15	16-37	28-170
Permanent Magnet DC, Hollow Shaft			
24A-3F/H (24V)	1/13	6.8-14	250-500
24A-3F/H (90/130V)	1/23 | 1/11	5.5-37	29-500
Permanent Magnet DC			
24A-3F 24 or 130V	1/17	5.2-22	42-500
Brushless DC			
22B-3N	1/8	11-37	42-500

≤148 lb-in.

Type 30R-3RD

Type 24A-3RD

Type 22B-3RD



TYPE 3RD	Power (HP)	Torque (lb-in.)	Speed (rpm)
Variable Speed AC (three-phase, inverter-duty)			
30R-3RD	1/25-1/17	95-148	0.5-8.5
Fixed Speed AC (single-phase)			
30R-3RD	1/30-1/27	88-148	0.4-7.8
Permanent Magnet DC			
24A-3RD (24/130V)	1/29-1/17	92-147	0.7-12.5
Brushless DC			
22B-3RD	1/16-1/8	95-147	0.7-12.5

≤179 lb-in.

Type 42R/5L/H and 33A-5L/H

Type 42R-5L and 42A-5L

Type 34R-5R

Types 42R-5N, 42A-5N, and 34B-5N



TYPE 5N, 5R and 5L	Power (HP)	Torque (lb-in.)	Speed (rpm)
Variable Speed AC (three-phase, inverter-duty), Hollow Shaft			
42R-5L/H	3/8	54-121	23-340
Variable Speed AC (three-phase, inverter-duty)			
42R-5N	3/8	54-121	23-340
Fixed Speed AC (single-phase)			
34R-5R	1/15	18-33	28-170
42R-5N	1/6 | 1/4	23-113	38-340
42R-5L	1/8	31-77	43-170
Permanent Magnet DC, Hollow Shaft			
33A-5L/H (90/130V)	1/8 | 1/4	17/22-84/109	43/62-345/500
33A-5L/H (90/180V)	1/7	14-101	33-500
Permanent Magnet DC			
33A-5R (130V)	1/12	17-45	50-200
33A-5L (130V)	1/6	37-77	50-200
42A-5L (130V)	1/6	37-117	33-200
42A-5N (12/24V)	3/16 | 7/16	43-109	25-200
42A-5N (12/24V)	7/16	43-109	62-500
42A-5N (90/130V)	3/16 | 1/4	24-109	45-500
42A-5N (90/130V)	1/4	24-109	62-500
Brushless DC			
34B-5N (24/130V)	1/5-3/8	18.6-109	62-500
34B/FV-5N	1/4	24-104	63-500

≤296 lb-in.

Type 48R-5H

Type 42R-5H



TYPE 5H	Power (HP)	Torque (lb-in.)	Speed (rpm)
Variable Speed AC (three-phase, inverter-duty)			
48R-5H	3/4	178-296	35-170
Permanent Magnet DC			
42A-5H Single Shaft	1/3	52-189	52-189
42A-5H Single Shaft	1/2	71-264	52-250

≤121 lb-in.

Type 34R-5F

Type 33A-5F



TYPE 5F	Power (HP)	Torque (lb-in.)	Speed (rpm)
Fixed Speed AC (single-phase)			
34R-5F (50/60Hz)	1/9	19/16 to 121/102	19/23 to 280/340
Permanent Magnet DC			
33A-5F (24, 130V)	1/8	11-55	62-500

≤380 lb-in.

Type 42R-GB/H

Type 42R-GB

Type 33A-GB, 33A-GB/H

Type 42A-GB



TYPE GB	Power (HP)	Torque (lb-in.)	Speed (rpm)
Variable Speed AC (three-phase, inverter-duty), Hollow Shaft			
42R-GB/H	3/8	230-380	6-28
Variable Speed AC (three-phase, inverter-duty)			
42R-GB	3/8	230-380	6-28
Fixed Speed AC (single-phase), Hollow Shaft			
42R-GB/H	1/6	290-380	5.9-14
Fixed Speed AC (single-phase)			
42R-GB (115V)	1/6	209-380	5.9-28
42R-GB (230/460V)	1/4	230-380	5.9-28
Permanent Magnet DC, Fixed or Hollow Shaft			
33A-GB (90V)	1/4	151-380	6.2-29
33A-GB (130V)	1/8	200-380	8.9-42
Permanent Magnet DC			
42A-GB	1/4	213-380	8.9-42

≤1535 lb-in.

Type 33A7-25H2

Type 33A7-30H3



HYPOID	Power (HP)	Torque (lb-in.)	Rated/Max Speed (rpm)[1]
PMDC Hypoid Gearmotors			
33A-25H2 (12V)	1/5	20-220	42-500
33A-25H2 (24V)	1/3	35-390	42-500
33A-25H2 (130V)	1/3	35-390	42-500
33A-25H2 (90V)	1/4	25-285	42-500
33A-25H2 (180V)	1/5	20-220	42-500
33A-30H3 (12V)	1/5	290-865	10-31
33A-30H3 (24V)	1/3	510-1535	10-31
33A-30H3 (130V)	1/3	510-1535	10-31
33A-30H3 (90V)	1/4	375-1120	10-31
33A-30H3 (180V)	1/5	290-865	10-31

[1] Twelve gear ratios from 5:1 to 240:1

AC Hypoid 42R6-25H2 42R6-30H3

COMING SOON

AC inverter-duty hypoid gearmotor stock models

Up to 2325 lb-in. torque. 1/3 HP. 230/460 VAC. 60Hz. 3-phase

GENERAL INFORMATION–Winding Options

	AC Induction	PMDC	Brushless DC
Voltages	115, 230, 230/460 VAC	12, 24, 90, 130, 180 VDC	12, 24, 130 VDC

MOTORS

EXPLORE ▶

AC Motors | DC Motors | BLDC Motors

AC



PMDC



BLDC



	Power (HP)	Torque (oz-in.)	Speed (rpm)
Variable Speed AC (3-ph, inverter-duty) and PSC			
30R	1/25 - 1/17	24-35	1700
34R	1/8 - 1/4	70-148	1700, 1800
42R	3/8	222	1700
48R	1/3 - 3/4	185-445	1700, 1800
Fixed Speed AC (single-phase)			
K-2	1/1600-1/200	0.35-3.2	1200, 1550, 1800, 3600
30R	1/40 - 1/30	10-20	1700, 1800, 3400
34R	1/15-1/5	38-119	1700, 1800, 3400
42R	1/12-1/4	48-148	1700, 1400, 3450
48R	1/3-1/2	185-296	1400, 1700, 1800
Permanent Magnet DC			
24A	1/50 - 1/7	8-24	2500-11,500
33A (24V)	1/16 - 1/3	34-134	2500
33A (90/130V	1/16-1/3	36-134	1725, 2500
33A (130V)	1/12-1/8	34-50	2500
42A	1/4-1/2	101-180	2500
Brushless DC			
22B	1/16-1/5	20-50	2500-10,000
34B	1/5-3/8	33-151	2500-10,000

SPEED CONTROLS

EXPLORE ▶

AC Inverters | DC Controls | BLDC Controls

AC Enclosed



DC Enclosed



DC Chassis



BLDC Chassis



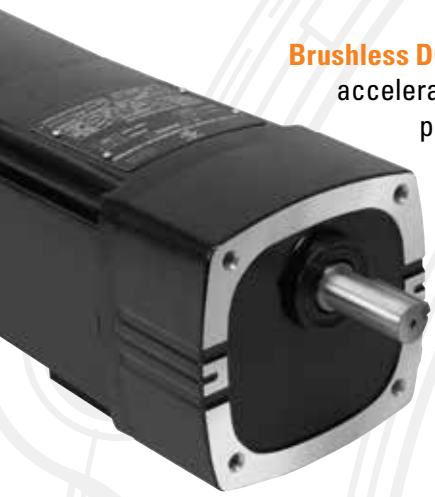
	Power (HP)	Input (VAC)	Input (VDC)	Output (VDC)	Output (Amps)
AC Inverter Speed Control					
Chassis / IP-00	1/2-1	115-230	—	230	2.4-4
NEMA-1 / IP-40	≤1	115	—	230	3.6
NEMA-4X / IP-65	≤1	115	—	230	3.6
DC Speed Controls					
Filtered PWM	7/16-1/16	115	—	≤130	1.25-5
Filtered PWM Speed / Direction	≤7/16	115	—	130	7.1
Filtered SCR	1/17-1/3	130	—	130	0.5-4.6
Filtered SCR (Remote)	1/17-1/3	115	—	130	0.5-2.3
Unfiltered SCR	≤1/5	115	—	90	≤4.2
Unfiltered SCR NEMA-4 @90V	≤1/5	115	—	0-90	≤4.2
Unfiltered SCR NEMA-4 @180V	≤1/3	230	—	0-180	≤4.2
Filtered PWM	7/16-1/6	115	—	130	1.25-5
Low-Voltage PWM	1/6-1/3	14-35	—	12-24	14-35
Unfiltered SCR	1/3	230	—	180	2.1-4.2
BLDC Speed Controls					
Low Voltage	1/4-3/8	—	12-24 or 24-35	12 or 24	18-30
Low Voltage (120° Commutation)	≤3/8	—	24-35	24	18
24V PWM	1/6-3/8	—	35	24	10-30
Enclosed Filtered SCR	1/3-3/8	115	—	130	3-6
Filtered SCR	1/3-3/8	115	—	130	3-6
Unfiltered SCR	3/8	115	—	90	3-6
12V PWM	1/4	14	—	12	20-30

OVER 1400 STANDARD GEARMOTORS, MOTORS AND CONTROLS



AC Products AC gearmotors and AC motors are an economical, efficient and simple-to-use choice for fixed speed or variable-speed (inverter-duty) velocity control applications.

DC Products Permanent magnet DC gearmotors and DC motors provide quick acceleration, deceleration, and reversing as well as high starting torque.



Brushless DC Products Brushless DC gearmotors and motors deliver quick acceleration and deceleration, high peak torque, and maintenance-free performance.

Speed Controls Bodine AC, DC and BLDC speed controls are designed to provide maximum performance from our motors and gearmotors.

FOR 2D/3D CAD DRAWINGS AND MORE, BODINE-ELECTRIC.COM

Get 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.



VARIABLE SPEED AC INVERTER-DUTY 3-PHASE GEARMOTORS

Get maintenance-free performance with our Inverter-Duty, three-phase gearmotors. Designed to drive demanding applications like conveyor systems, food processing equipment, medical equipment and factory automation. Parallel shaft, hollow shaft and right-angle gearmotors are rated from 1/25-3/4HP, with gear ratios from 5:1 to 3600:1, and rated torque up to 1000 lb-in (113 Nm). Dual voltage (230/460 VAC) stock models are available.

SIMPLIFY YOUR DESIGN WITH HOLLOW SHAFT GEARMOTORS

Hollow shaft gearmotors optimize mounting space, simplify installation, and reduce the number of component parts. They can be connected directly to the driven load eliminating expensive shaft couplings and mounting hardware that can be unsafe, bulky, and present alignment issues. Various single and dual drive insert shafts and mounting bases are also available for maximum design flexibility.

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