



SCR Rated 90V and 180V DC Gearmotors

To provide greater flexibility and compatibility with unfiltered SCR controls, Bodine Electric Company now offers a new selection of 90V and 180VDC gearmotors with a maximum rated armature speed of 2500 rpm. These new SCR rated stock models from Bodine can replace 90V or 180VDC gearmotors sold by Baldor, Bison Gear, Leeson, or Grainger.



Type 24A-Z SCR Rated



Type 33A-Z SCR Rated



Type 33A-WX SCR Rated



Type 42A-FX SCR Rated



Type 33A-5L/H SCR Rated

Rated Speed (rpm) ¹	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

Type 24A-Z Parallel Shaft Gearmotors | Up to 120 lb-in.

14	120	0.58	0.3	1.6	1.5	1/20	1/19	180:1	139	166	24A4BEPM-Z4	1245	1236
28	77	0.58	0.3	1.6	1.5	1/20	1/19	90:1	126	193	24A4BEPM-Z4	1243	1235
42	55	0.58	0.3	1.6	1.5	1/20	1/19	60:1	137	207	24A4BEPM-Z3	1242	1234
83	27	0.58	0.3	1.6	1.5	1/20	1/19	30:1	120	225	24A4BEPM-Z3	1241	1233
139	18	0.58	0.3	1.6	1.5	1/20	1/19	18:1	48	142	24A4BEPM-Z2	1239	1232
208	12	0.58	0.3	1.6	1.5	1/20	1/19	12:1	44	145	24A4BEPM-Z2	1238	1231
417	6	0.58	0.3	1.6	1.5	1/20	1/19	6:1	20	147	24A4BEPM-Z2	1237	1230

Type 33A-Z Parallel Shaft Gearmotors | Up to 120 lb-in.

42	120	1.6	0.8	1.4	1.4	1/7	1/7	60:1	137	166	33A5BEPM-Z3	1189	1179
83	87	1.6	0.8	1.4	1.4	1/7	1/7	30:1	120	187	33A5BEPM-Z3	1188	1178
139	39	1.6	0.8	1.4	1.4	1/7	1/7	18:1	48	132	33A5BEPM-Z2	1186	1177
208	36	1.6	0.8	1.4	1.4	1/7	1/7	12:1	44	132	33A5BEPM-Z2	1185	1176
417	19	1.6	0.8	1.4	1.4	1/7	1/7	6:1	20	137	33A5BEPM-Z2	1184	1175

Type 33A-WX Parallel Shaft Gearmotors | Up to 205 lb-in.

8.0	205	1.6	0.8	1.4	1.4	1/7	1/7	312:1	350	300	33A5BEPM-WX4	1259	1172
15	200	1.6	0.8	1.4	1.4	1/7	1/7	172:1	350	300	33A5BEPM-WX4	1247	1170
26	185	1.6	0.8	1.4	1.4	1/7	1/7	98:1	350	261	33A5BEPM-WX4	1257	1168
38	190	1.6	0.8	1.4	1.4	1/7	1/7	66:1	350	223	33A5BEPM-WX3	1256	1166
46	163	1.6	0.8	1.4	1.4	1/7	1/7	55:1	350	217	33A5BEPM-WX3	1255	1164
57	131	1.6	0.8	1.4	1.4	1/7	1/7	44:1	327	213	33A5BEPM-WX3	1254	1162
84	88	1.6	0.8	1.4	1.4	1/7	1/7	30:1	220	201	33A5BEPM-WX3	1253	1169
123	64	1.6	0.8	1.4	1.4	1/7	1/7	20:1	160	185	33A5BEPM-WX2	1252	1158
181	39	1.6	0.8	1.4	1.4	1/7	1/7	14:1	97	172	33A5BEPM-WX2	1251	1154
266	26	1.6	0.8	1.4	1.4	1/7	1/7	9:1	65	156	33A5BEPM-WX2	1250	1153
455	15	1.6	0.8	1.4	1.4	1/7	1/7	6:1	37	135	33A5BEPM-WX2	1249	1152
658	9	1.6	0.8	1.4	1.4	1/7	1/7	4:1	22	122	33A5BEPM-WX2	1248	1150

Type 42A-FX Parallel Shaft Gearmotors | Up to 350 lb-in.

8.3	350	2.2	1.2	1.5	1.6	1/4	1/4	300:1	500	214	42A5BEPM-FX4	1510	5149
14	350	2.2	1.2	1.5	1.6	1/4	1/4	180:1	500	214	42A5BEPM-FX4	1509	5148
21	350	2.2	1.2	1.5	1.6	1/4	1/4	120:1	500	214	42A5BEPM-FX4	1508	5147
42	290	2.2	1.2	1.5	1.6	1/4	1/4	60:1	470	233	42A5BEPM-FX3	1507	5146
63	194	2.2	1.2	1.5	1.6	1/4	1/4	40:1	335	254	42A5BEPM-FX3	1506	5145
83	145	2.2	1.2	1.5	1.6	1/4	1/4	30:1	400	281	42A5BEPM-FX3	1505	5144
125	97	2.2	1.2	1.5	1.6	1/4	1/4	20:1	280	292	42A5BEPM-FX3	1504	5143
167	73	2.2	1.2	1.5	1.6	1/4	1/4	15:1	290	300	42A5BEPM-FX2	1503	5142
250	48	2.2	1.2	1.5	1.6	1/4	1/4	10:1	195	300	42A5BEPM-FX2	1502	5141
500	25	2.2	1.2	1.5	1.6	1/4	1/4	5:1	72	48	42A5BEPM-FX1	1501	5140

Type 33A-5L/H Hollow Shaft Gearmotors | Up to 89 lb-in.

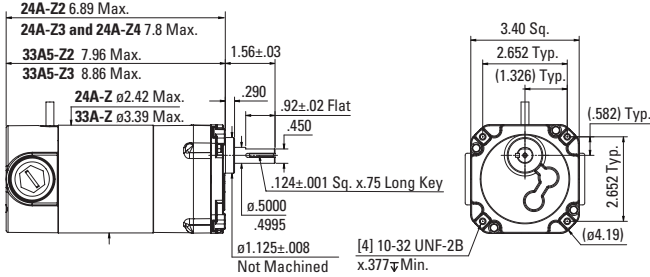
33	89	1.6	0.8	1.4	1.4	1/7	1/7	75:1	190	120	33A5BEPM-5L/H	1526	1516
63	68	1.6	0.8	1.4	1.4	1/7	1/7	40:1	177	120	33A5BEPM-5L/H	1525	1515
83	61	1.6	0.8	1.4	1.4	1/7	1/7	30:1	169	120	33A5BEPM-5L/H	1524	1514
125	47	1.6	0.8	1.4	1.4	1/7	1/7	20:1	159	120	33A5BEPM-5L/H	1523	1513
250	25	1.6	0.8	1.4	1.4	1/7	1/7	10:1	91	120	33A5BEPM-5L/H	1522	1512
500	14	1.6	0.8	1.4	1.4	1/7	1/7	5:1	49	120	33A5BEPM-5L/H	1521	1511

1. Rated speed is based on 2500 rpm armature speed at rated voltage.

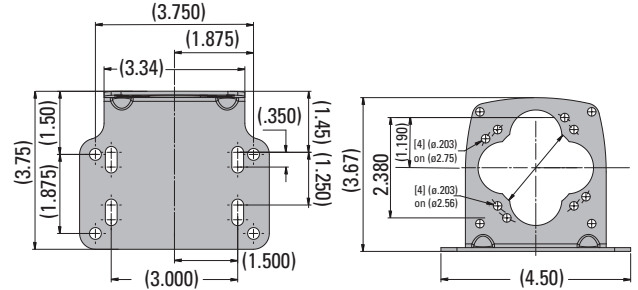


Dimensions

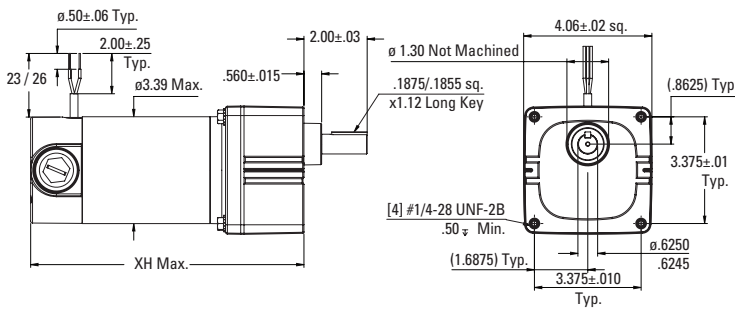
Type 24A-Z and 33A-Z Parallel Shaft Gearmotors (Dimensions in Inches)



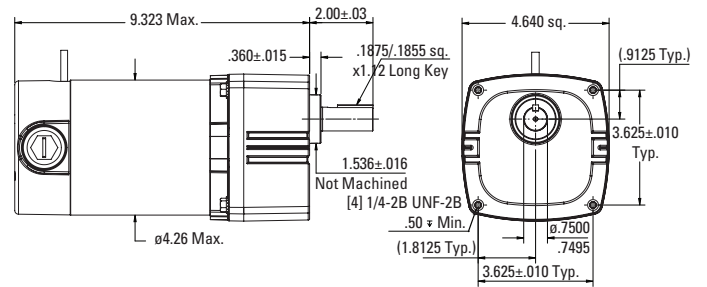
Model 5968 L-Bracket for Z Gearmotors (Dimensions in Inches)



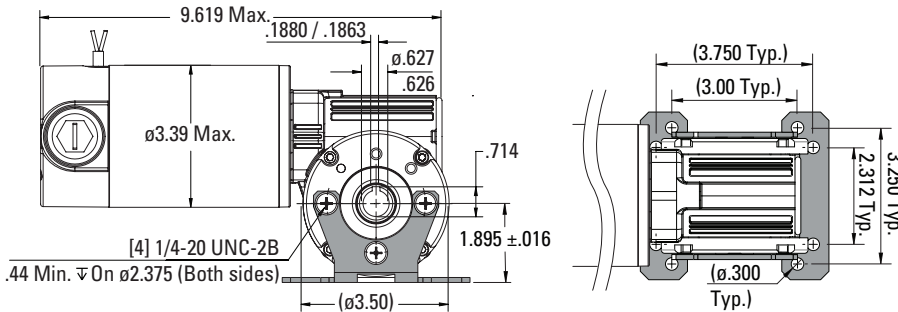
Type 33A-WX Parallel Shaft Gearmotors (Dimensions in Inches)



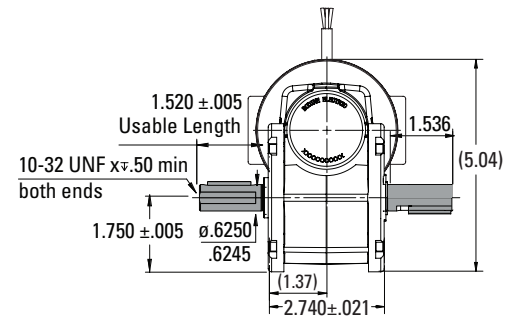
Type 42A-FX Parallel Shaft Gearmotors (Dimensions in Inches)



Type 33A-5L/H Hollow Shaft Gearmotors (Dimensions in Inches)



Model 0956 Flange Kit also available.



Shown with Optional **Model 0958** Base Kit for a Baldor & Bison mounting pattern.



Matched Bodine UPM Speed Controls

Our UPM speed controls can drive SCR rated gearmotors with power rating of up to 1/5 HP. Model 0865 or 0866 (chassis), and model 1865 (NEMA-4) provide basic speed control from either a 115VAC or 230VAC power source. Each features six DIP switches for quick system configuration to match the motor HP to the control. The chassis controls are available with either 1/2" quick connect tabs or plug-in terminal connections. Check our [web site](#) and control user manual for maximum allowable HP.

Two Year System Warranty
Purchase a Bodine gearmotor and speed control together and get our extended 2-year system warranty.



New Hollow-Shaft Hypoid PMDC Gearmotors

SCR Rated 90VDC and 180VDC

The new type 33A7-25H2 and 33A7-30H3 hypoid gearmotor combines our high-performance 33A PMDC motor with our all new hypoid gearheads. The gearmotor's high torque and efficient performance make it ideal for conveyor systems, food processing, medical equipment and factory automation.

All-New Type 25H2 and 30H3 Hypoid Gearhead

- More energy-efficient than similar worm-gear models
- Hollow shaft eliminates expensive shaft couplings, and mounting hardware
- Unvented gearhousing mounts in any orientation
- Permanently lubricated with high-performance lubricant
- Hardened steel gears for long life and maximum performance

33A Motor Features

- Totally enclosed non-ventilated
- High starting torque
- Class "F" insulation and ratings
- Pre-seated motor brushes for optimum performance and quiet operation
- Permanently lubricated, noise-tested, sealed, ball bearings
- Encoder-compatible with new optional screw-in encoder shaft kit (standard/stock models supplied with factory-installed cover over shaft opening)



Type 33A7-25H2



Type 33A7-30H3



Typical Applications

Ideal for applications that require higher torque and lower power consumption than gearheads utilizing worm gears can provide: conveyors, pumps, packaging and other industrial automation equipment.

Gearmotor Specifications and Ratings

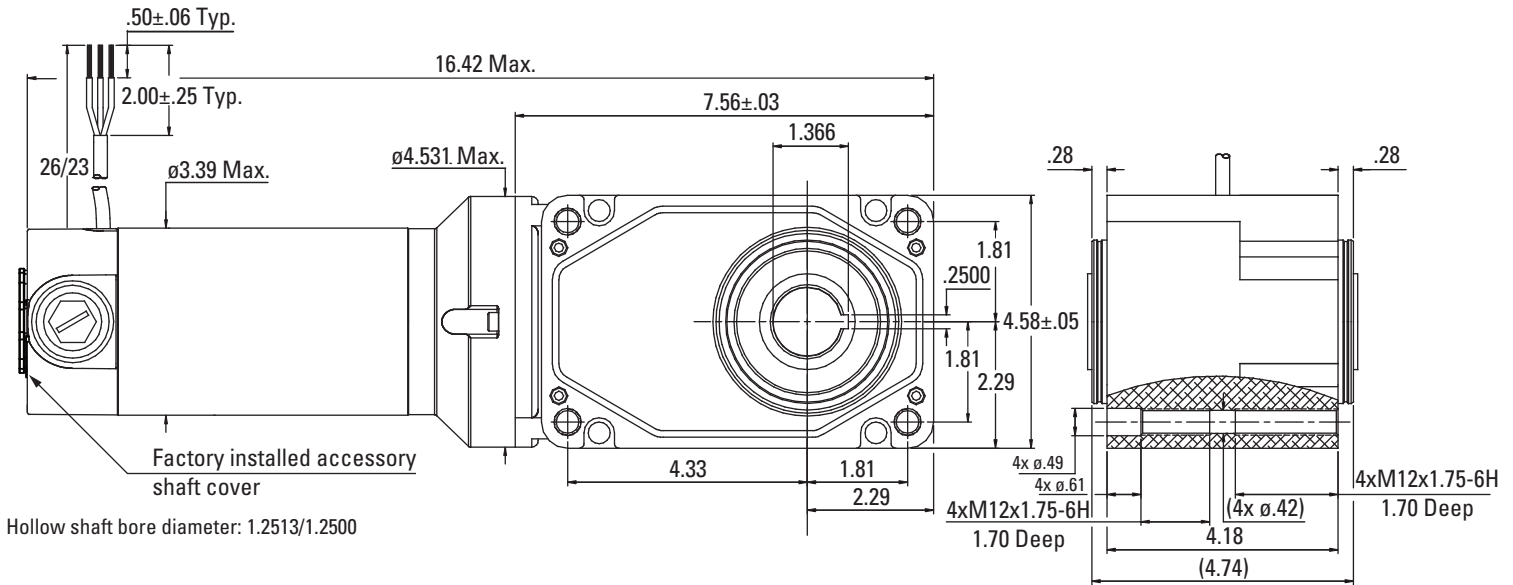
Speed (rpm)	Rated Torque (lb-in.)	Rated Current (Amps)	Peak Torque (lb-in.)	Power (HP)	Form Factor	Gear Ratio	Radial Load (lbs.)	Length (inches)	Weight (lbs.)	Product Type	Item Number
90 VDC, SCR Rated, Totally Enclosed, Non-ventilated, Class F Insulation ²											
10	1120	2.3	2374	1/4	1.4	240	708	16.37	24	33A7-30H3	3023
13	935	2.3	1979	1/4	1.4	200	708	16.37	24	33A7-30H3	3022
16	750	2.3	1583	1/4	1.4	160	708	16.37	24	33A7-30H3	3021
21	560	2.3	1187	1/4	1.4	120	708	16.37	24	33A7-30H3	3020
31	375	2.3	791	1/4	1.4	80	696	16.37	24	33A7-30H3	3019
42	285	2.3	601	1/4	1.4	60	575	14.82	20	33A7-25H2	3018
63	190	2.3	401	1/4	1.4	40	518	14.82	20	33A7-25H2	3017
83	155	2.3	325	1/4	1.4	30	475	14.82	20	33A7-25H2	3016
125	100	2.3	217	1/4	1.4	20	419	14.82	20	33A7-25H2	3015
167	75	2.3	163	1/4	1.4	15	388	14.82	20	33A7-25H2	3014
250	50	2.3	108	1/4	1.4	10	342	14.82	20	33A7-25H2	3013
500	25	2.3	54	1/4	1.4	5	277	14.82	20	33A7-25H2	3012
180 VDC, SCR Rated, Totally Enclosed, Non-ventilated, Class F Insulation ²											
10	865	1.1	1872	1/5	1.5	240	708	16.37	24	33A7-30H3	3035
13	720	1.1	1560	1/5	1.5	200	708	16.37	24	33A7-30H3	3034
16	580	1.1	1248	1/5	1.5	160	708	16.37	24	33A7-30H3	3033
21	435	1.1	936	1/5	1.5	120	708	16.37	24	33A7-30H3	3032
31	290	1.1	624	1/5	1.5	80	696	16.37	24	33A7-30H3	3031
42	220	1.1	474	1/5	1.5	60	575	14.82	20	33A7-25H2	3030
63	145	1.1	316	1/5	1.5	40	518	14.82	20	33A7-25H2	3029
83	120	1.1	257	1/5	1.5	30	475	14.82	20	33A7-25H2	3028
125	80	1.1	171	1/5	1.5	20	419	14.82	20	33A7-25H2	3027
167	60	1.1	128	1/5	1.5	15	388	14.82	20	33A7-25H2	3026
250	40	1.1	86	1/5	1.5	10	342	14.82	20	33A7-25H2	3025
500	20	1.1	43	1/5	1.5	5	277	14.82	20	33A7-25H2	3024

Ratings are based on operation from DC power. Performance may vary with a speed control. 2. Rated speed is based on 2500 rpm armature speed at rated voltage.

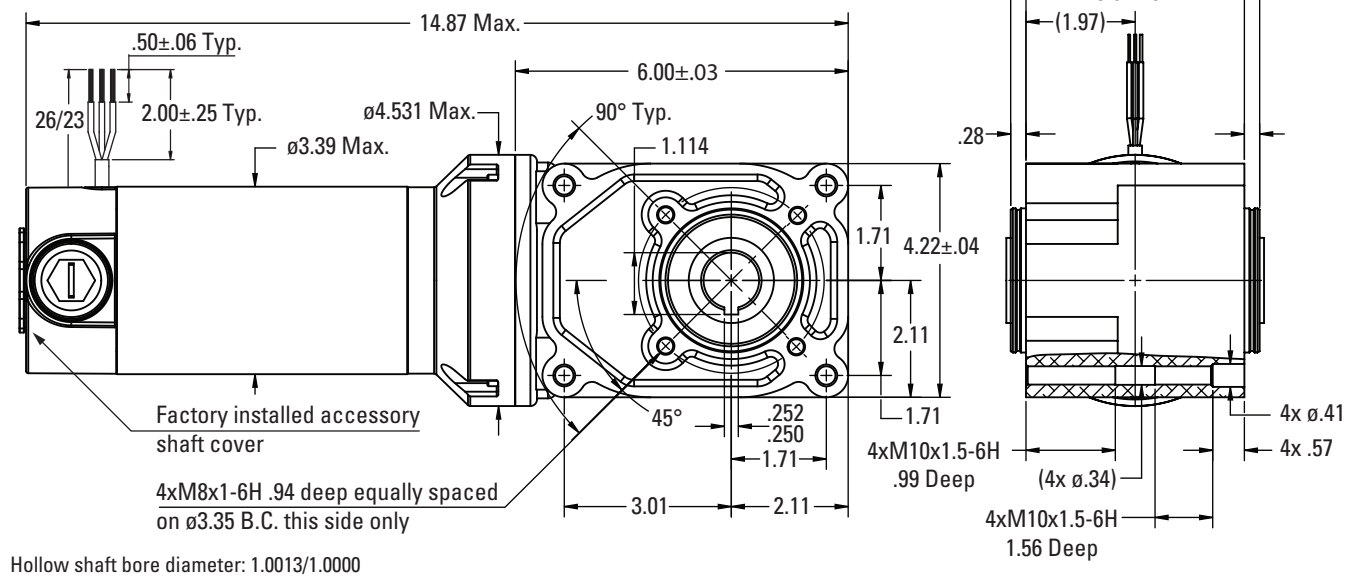


33A7-30H3 PMDC Hypoid Gearmotor (90VDC and 180VDC)

Dimensions (inches)



33A7-25H2 PMDC Hypoid Gearmotor



Hypoid Gearmotor Accessories

Bodine's optional hypoid gearmotor accessories include shaft kits for both the 25H2 and 30H3 gearheads, shaft cover kits (non-extension side), base/foot mount brackets for both gearheads, and an optional screw-in accessory shaft for field-installed encoder options.



Screw-in accessory shaft kit for encoders
Model 0964



Shaft cover kits
Model 0952 for type 25H2 gearhead
Model 0953 for type 30H3 gearhead



Shaft kits
Model 0929 for type 25H2 gearhead (1" dia.)
Model 0930 for type 30H3 gearhead (1-1/4" dia.)



Base/foot mount brackets
Model 0957 for type 25H2 gearhead
Model 0959 for type 30H3 gearhead

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