

- Quinsulation™, 5-stage insulation system designed to meet NEMA MG 1-1993, Section IV, Part 31
- Most standard models are available with either 230VAC, 60Hz, 3-phase or 230/460V, 60Hz 3-phase
- Inverter-grade magnet wire and Class F insulation system for increased protection against spikes and corona damage caused by the inverter
- UL recognized for construction, CSA certified, and in compliance with the Low Voltage Directive “CE”
- See page 34 for capacitors and terminal boxes
- See pages 41 and 42 for reference dimensions

Variable Speed— Type 30R — 1/25-1/17 HP

Fixed Speed Ratings				Variable Speed (SOA) Ratings ¹					Product Type	230V Model Number	
Speed (rpm)	Torque (oz-in.)	HP	Amps	Speed Range (rpm)	Frequency Range (Hz)	Torque Type	Torque @				
							10 Hz (oz-in.)	60 Hz (oz-in.)	140 Hz (oz-in.)		
1700	24	1/25	0.38	220-3150	10-140	variable	20	56	27	30R2BEPP	N2200
	35	1/17	0.48	133-3240			45	66	35	30R4BEPP	2201



Type 30R Pacesetter

Variable Speed— Type 34R — 1/8-1/4 HP

Fixed Speed Ratings					Variable Speed (SOA) Ratings ¹					Product Type	230V Model Number	230/460V Model Number	
Speed (rpm)	Torque (oz-in.)	HP	(230V) Amps	(230/460V) Amps	Speed Range (rpm)	Frequency Range (Hz)	Torque Type	Torque @					
								10 Hz (oz-in.)	60 Hz (oz-in.)	Max. Hz (oz-in.)			
Three-Phase, Inverter Duty, Non-synchronous Motor (TEFC)													
1700	148	1/4	1.2	1.2/0.60	220-3650	10-140	variable	120	247	90	34R6BFPP	2295	2895
Three-Phase, Inverter Duty, Synchronous Motor (TEFC)													
1800	70	1/8	1.4	—	300-2400	10-80	variable	54	103	48	34R6BFYP	2299	—



Type 34R Pacesetter

Variable Speed— Type 42R — 3/8 HP

Fixed Speed Ratings					Variable Speed (SOA) Ratings ¹					Product Type	230V Model Number	230/460V Model Number	
Speed (rpm)	Torque (oz-in.)	HP	(230V) Amps	(230/460V) Amps	Speed Range (rpm)	Frequency Range (Hz)	Torque Type	Torque @					
								10 Hz (oz-in.)	60 Hz (oz-in.)	140 Hz (oz-in.)			
Three-Phase, Inverter Duty, Non-synchronous Motor (TEFC), Base Mount													
1700	222	3/8	1.9	1.9/.95	177-3500	10-140	variable	170	281	137	42R6BFPP	2235	2835
Three-Phase, Inverter Duty, Non-synchronous Motor (TEFC), NEMA C Face Mount													
1700	222	3/8	1.9	1.9/.95	177-3500	10-140	variable	170	281	137	42R6BFPP	N2234	2834



Type 42R Pacesetter

Variable Speed— Type 48R — 1/3-3/4 HP

Fixed Speed Ratings				Variable Speed (SOA) Ratings ¹					Product Type	230/460V Model Number	
Speed (rpm)	Torque (oz-in.)	HP	(230/460V) Amps	Speed Range (rpm)	Frequency Range (Hz)	Torque Type	Torque @				
							10 Hz (oz-in.)	60 Hz (oz-in.)	Max. Hz (oz-in.)		
Three-Phase, Inverter Duty, Non-synchronous Motor (TEFC), NEMA-56C Face Mount or Base Mount											
1700	445	3/4	2.7/1.3	160-3600	10-140	variable	412	675	220	48R6BFPP	2240
Three-Phase, Inverter Duty, Synchronous Motor (TEFC), NEMA-56C Face Mount or Base Mount											
1800	185	1/3	2.4/1.2	300-2400	10-80	variable	220	262	125	48R5BFYP	2244



Type 48R Pacesetter

¹ SOA: Contact the factory for detailed speed/torque information (Safe Operating Area). See page 19. “N” model numbers require lead time and minimum quantities.

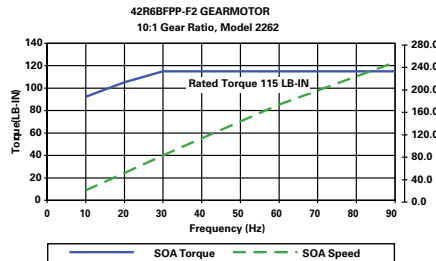
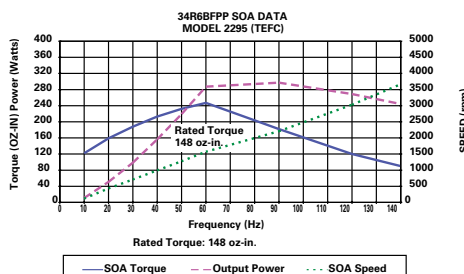
Safe Operating Torque and Speed Area (SOA)

Rated Torque is either the value of torque which corresponds to nameplate output power and speed at 60 Hz, or it is the maximum torque at gear strength limits (rated torque can be either motor limited or gear-limited).

SOA Torque is defined as the maximum torque at which the motor still operates within Class F thermal limits, or as the maximum torque of a gearmotor when it is gear-limited. Continuous duty operation must be limited to the area below the

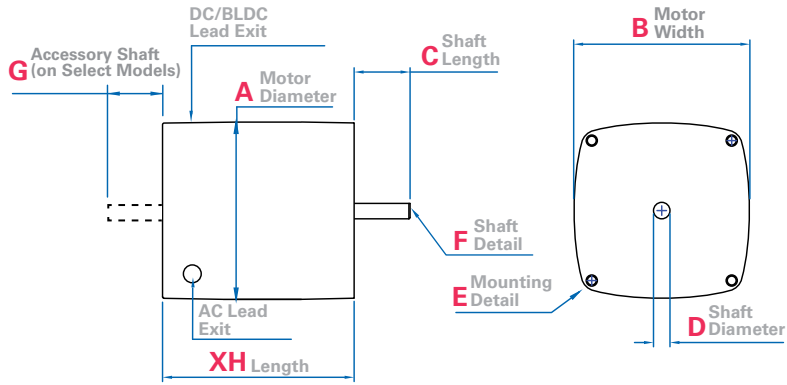
SOA or gear-limited torque curves. The SOA torque for synchronous motors is close to the pull-in torque; that is, the motor will pull out of synchronism if the required torque exceeds the SOA torque.

Examples of typical “SOA” Graphs. Contact our technical support staff for specific SOA information.



Motor Dimensions

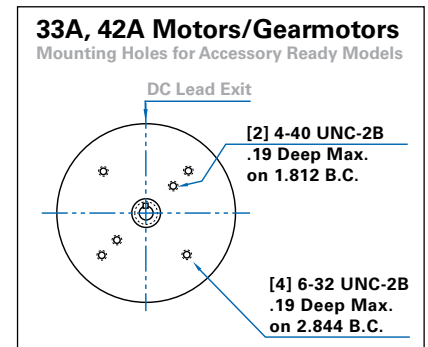
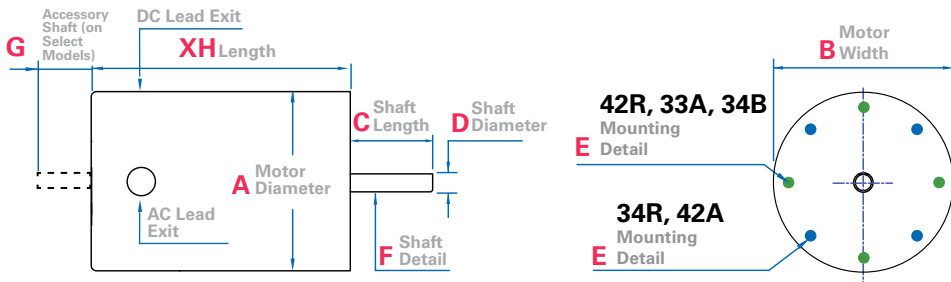
Dimensions (in inches) are for reference only. For CAD drawings and up-to-date specifications, please visit www.bodine-electric.com.



Motor Type K-2, 30R, 22B, pages 18-19, 23

	Product Type	Weight (lbs.)	XH Length	A Diameter Square	B Width	C Shaft Length	D Shaft Diameter	E Mounting Detail	F Shaft Detail	G Acc'y Shaft	Lead/Cord Length (in.)
K-2	K2-23	1.6	1.827	2.38	2.38	.62	.188	[4] 8-32 UNC-2B x .18 Deep Max. on 2.687 B.C.	Flat	No	12
	K2-24	1.9	2.20								
	K2-26	2.2	2.50								
K-2 Torque Motor	Model 0621	2.2	2.484								
30R	30R2	4.75	3.665	3.34	3.34	1.06	.313	[4]10-32 UNF-2B x .32 deep Max. on 3.75 B.C.	Flat	Yes	12
	30R4										
30R Torque Motor	Model 5625										
22B	22B2	2.5	3.610	2.378	2.378	.94	.375	[4] 8-32 UNC-2B x .35 Deep Max. on 2.625 B.C.	Flat	Yes	12 or 24
	22B4	3.5	4.570							No	None
22B INTEGRA	22B2	2.5	4.719	2.93	2.93						
	22B4	3.5	5.679								

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



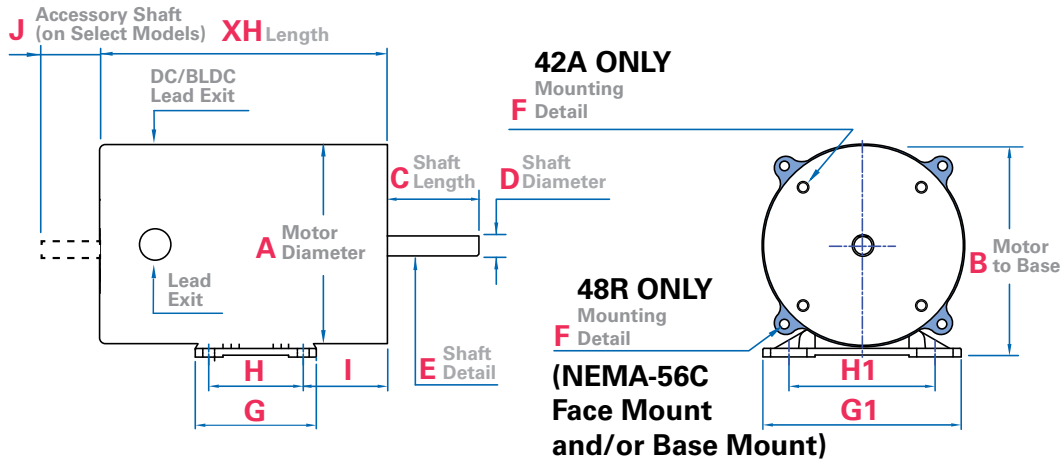
Motor Type 34R, 42R, 33A, 42A, 34B, pages 19-23 (Face Mount)

	Product Type	Weight	XH Length	A Diameter	B Width (PMDC)	C Shaft Length	D Shaft Diameter	E Mounting Detail	F Shaft Detail	G Acc'y Shaft	Lead/Cord Length (in.)
34R	34R4	9.0	5.526	4.02	—	1.25	.375	[4] 1/4-20 UNC-2B x .31 Min. Deep on 2.75 B.C.	Flat	No	12
	34R6		6.526								
42R	42R3	7.75	5.616	4.73	—	1.38	.375	[4] 1/4-20 UNC-2B x .31 Min. Deep on 3.75 B.C.	Flat	No	12
	42R5	11.0	6.679								
	42R6	13.0	7.116								
33A	33A3	5.1	5.140	3.39	3.75	1.48	.375	[4] 10-32 UNF-2B x .25 Min. Deep on 2.75 B.C.	Flat	Yes	24
	33A5	6.28	6.200	3.39	3.75	1.48	.500				
	33A7	7.45	7.401								
42A NEMA 42C	42A5	11.3	6.656	4.26	4.25	1.62	.500	[4] 1/4-20 UNC-2B x .31 Min. Deep on 3.75 B.C.	Flat	Yes	24
	42A7	14.5	7.781			1.31			Flat/Key		
42A NEMA 42CZ	42A5	11.3	6.656								
	42A7	14.5	7.781								
34B	34B3	6.0	4.043	4.02	—	1.625	.500	[4] 1/4-20 UNC-2B x .31 Min. Deep on 2.75 B.C.	Flat	Yes	12 or 24
	34B4	7.0	4.543								
	34B6	9.0	5.543								

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

Motor Dimensions

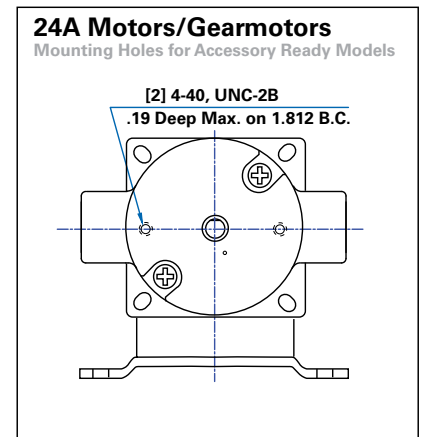
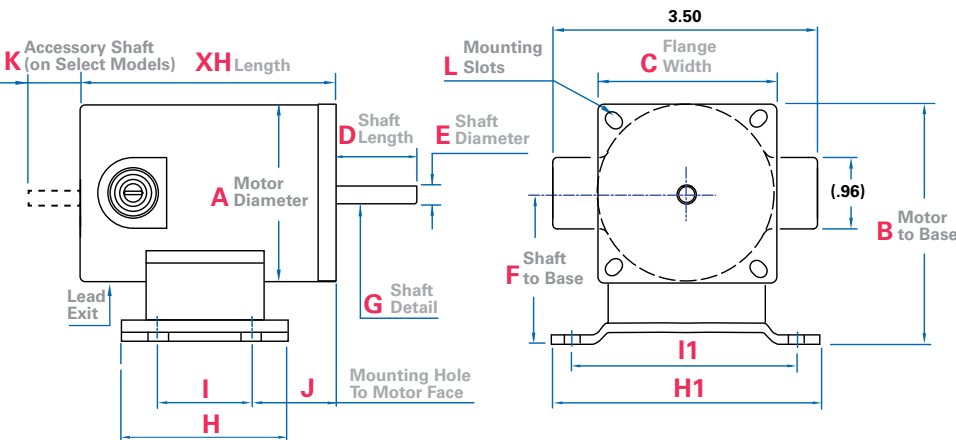
Dimensions (in inches) are for reference only. For CAD drawings and up-to-date specifications, please visit www.bodine-electric.com.



Motor Type 42R, 48R, 42A, pages 18-22 (Base Mount)

	Product Type	Weight (lbs.)	XH Length	A Diameter	B Motor to Base	C Shaft Length	D Shaft Diameter	E Shaft Detail	F Face Mount Detail	G Base Length	G1 Base Width	H Mtg. Hole Length	H1 Mtg. Hole Width	I Base Mtg. to Face	J Acc'y Shaft	Lead/Cord Length (in.)
42R	42R3	7.8	5.616	4.73	4.999	1.38	.375	Flat	Base mount 42R motors have no face mounting holes	2.88	4.75	2.25	3.50	1.572	None	12
	42R5	11	6.679													
	42R6	13	7.116													
42R Torque Motor	Model 2628	12.5	6.201	4.62	4.93	1.31	.375	Flat	[4] 1/4-20 UNC-2B x .31 Max. Deep on 3.75 B.C.	2.88	4.75	2.25	3.50	1.569	1.56	12
48R	48R5	17.0	7.329	5.90	5.85	2.06	.625	Key	[4] 3/8-16 UNC-2B x .50 Max. Deep on 5.875 B.C.	3.50	5.75	2.75	4.25	1.446	None	12
	48R6	20.0	7.797													
48R Torque Motor	Model 0632	20.5	6.676	5.73	5.85	2.06	.625	Key	[4] 3/8-16 UNC-2B x .50 Max. Deep on 5.875 B.C.	3.50	5.75	2.75	4.25	1.446	2.00	12
42A	42A5	11.3	6.656	4.26	4.77	1.62	.500	Flat	[4] 1/4-20 UNC-2B x .31 Max. Deep on 3.75 B.C.	2.88	4.75	2.25	3.50	1.471	1.28	24
	42A7	14.5	7.781													

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



Motor Type 24A, page 22 (Base/Flange Mount)

	Product Type	Wt. (lbs.)	XH Length	A Diameter	B Motor to Base	C Flange Width	D Shaft Length	E Shaft Diameter	F Shaft to Base	G Shaft Detail	H Base Length	H1 Base Width	I Base Mounting Hole Length	I1 Base Mounting Hole Width	J	K Acc'y Shaft	L Mounting Slots	Lead/Cord Length (in.)
24A	24A0	2.0	3.240	2.42	3.185	2.41	.94	0.312	1.98	Flat	2.25	3.62	1.25	3.00	.625	Yes	0.181W x 0.257L on 2.764 B.C.	24
	24A2	2.5	3.870												1.62			
	24A4	3.0	4.620												1.81			

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