Fixed Speed—Type 42R 1/12-1/4 HP

Speed (rpm)	Rated Torque (oz-in.)	HP	V	Hz	Ph	Amps	Radial Load (lbs.)	Capacitor (µF/VAC)	Product Type	Model with NEMA-C Face and Base Mount	Model with NEMA-C Face Mount	Model with Base Mount
Permanent Split Capacitor, Three-Wire Reversible, Non-Synchronous										*CAPACITOR IS REQUIRED*		
1700	148	1/4	115	60	1	2.9	50	45.0/250[1]	42R6BFCI	0267	—	—
1400/1700	144/119	1/5	230	50/60		1.1 / 1.2		10.0/450		0268	—	—
Permanent Split Capacitor, Non-synchronous										*CAPACITOR IS REQUIRED*		
1700	101	1/6	115	60	1	1.9	50	15.0/350	42R5BFCI	—	0260	0258
Split phase (with centrifugal switch), Non-synchronous												
1700	48	1/12	115	60	1	2.4	50	—	42R3BFSI	—	N0261	0251
1700	101	1/6				3.6			42R5BFSI	—	0254	0253
3450	50	1/6				3.3			42R5BFSI	—	N0265	0255
Three-phase, Non-synchronous												
1700	148	1/4	230	60	3	1.2	50	—	42R5BFPP	—	N0263	0273
			230/460			1.2/0.6				—	N0264	0274

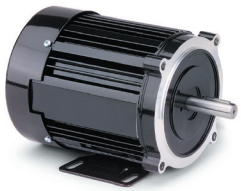
[1] Run capacitor 45µF/250 VAC for 60Hz operation (p/n 49401145). Use 40µF/250 VAC capacitor (p/n 49401147) for 50 Hz operation (motor derated to 1/6 HP at 50 Hz).

Type 42R (Base Mount shown)

Fixed Speed—Type 48R 1/3-1/2 HP

Speed (rpm)	Rated Torque (oz-in.)	HP	V	Hz	Ph	Amps	Radial Load (lbs.)	Capacitor (µF/VAC)	Product Type	Model Number
Permanent Split Capacitor, Non-synchronous										*CAPACITOR IS REQUIRED*
1700	196	1/3	115	60	1	4.0/2.0	205	20.0/370	48R6BFCI	0283
			230					12.5/370		
Split Phase, Non-Synchronous (With Centrifugal Switch)										
1700	196	1/3	115/230	60	1	4.8/2.4	205	—	48R6BFSI	0284
Three-phase, Non-Synchronous										
1400	296	1/2	230	50	3	2.0	205	—	48R6BFPP	0286
1700			230	60		1.7				
1400			460	50		1.0				
1700			460	60		0.85				
Three-phase, Synchronous										
1800	185	1/3	230/460	60	3	2.5/1.3	205	—	48R5BFYP	0281

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



Type 48R (NEMA-56C Face Mount, and/or Base Mount)

Comparative Advantages of AC Motors and Gearmotors

This table illustrates some of the capabilities, advantages, and disadvantages of common AC motor and gearmotors designs.

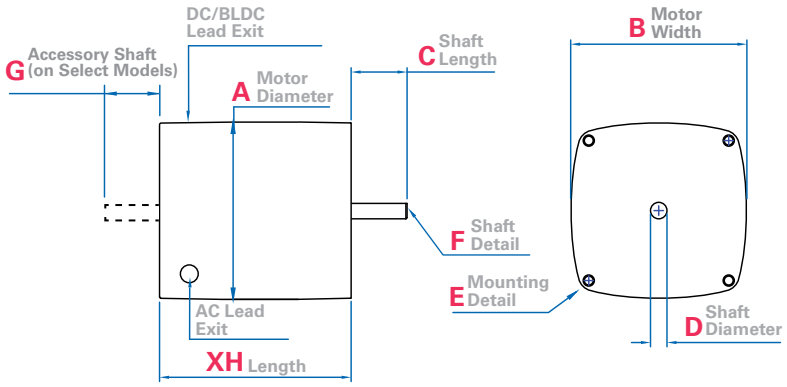
Motor Winding	Speed Tolerance	Typical Rated Speeds at 60Hz	Start/Stop Frequency	Coast without Brake	Coast with Dynamic Braking	Starting Torque (% of Rated Torque)	Pros	Cons
Split Phase (SI)	±3%	1700-1750 (4-pole) 3450 (2-pole)	Up to 6/hour	20-600 rev.	0.5-6 rev.	175% and up	No capacitors	Switch life 50k to 250k starts
Permanent Split Capacitor (CI)	±3%	1700-1750 (4-pole) 3450 (2-pole)	Up to 10/min.	20-600 rev.	0.5-6 rev.	90-100%	Very reliable, Low starting current	Low starting torque
Three Phase (PP, Non-synchronous)	±3%	1700-1750 (4-pole) 3450 (2-pole)	Up to 10/min.	20-600 rev.	0.5-6 rev.	200-400%	Most reliable and efficient, No cap/switch	Requires three-phase power supply

Variable Speed Drive Systems

	Requires Brushes	High Torque at Speeds Above and Below Rated	Noise Level	Performance	Speed Range
Variable Speed AC	No	No	Higher	Limited	Limited
PMDC System	Yes	Yes	Highest	Good	Widest
BLDC System	No	Yes	Lowest	Best	Widest

Motor Dimensions

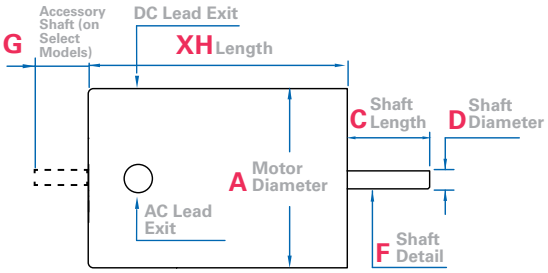
Dimensions (in inches) are for reference only. For CAD drawings and up-to-date specifications, please visit **www.bodine-electric.com**.

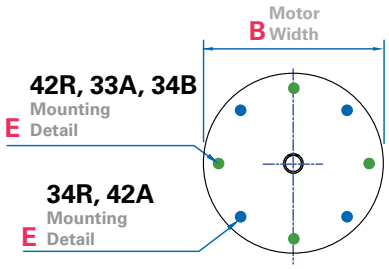


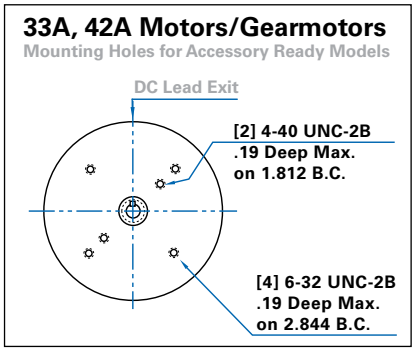
Motor Type K-2, 30R, 22B, pages 18-19, 23

	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								
22B INTEGRA	22B2	2.5	4.719	2.93	2.93					No	None
	22B4	3.5	5.679								

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







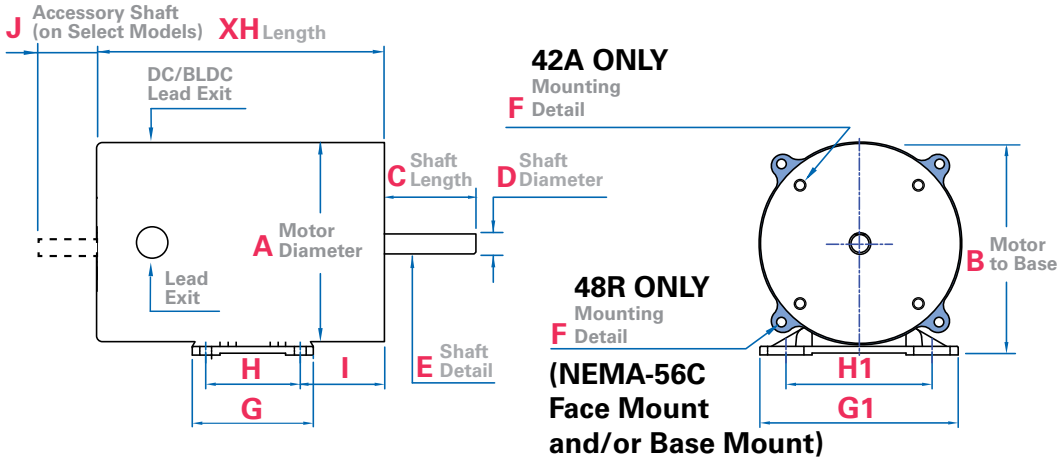
Motor Type 34R, 42R, 33A, 42A, 34B, pages 19-23 (Face Mount)

	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			1.125	.347				
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								
42A NEMA 42CZ	42A5	11.3	6.656			1.31			Flat/Key		
	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

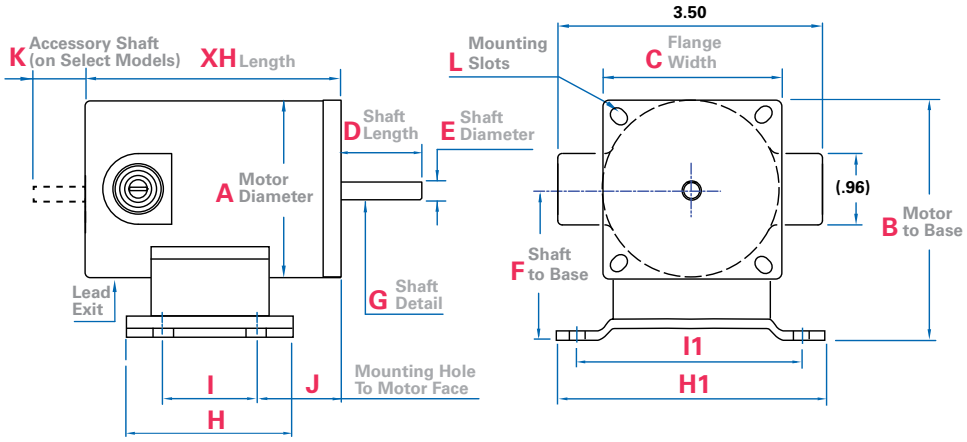
Dimensions (in inches) are for reference only. For CAD drawings and up-to-date specifications, please visit **www.bodine-electric.com**.

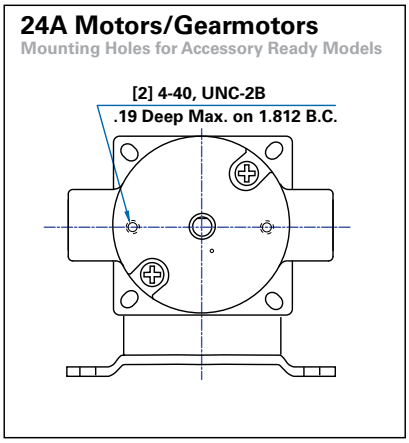


Motor Type 42R, 48R, 42A, pages 18-22 (Base Mount)

	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 Dia-meter	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