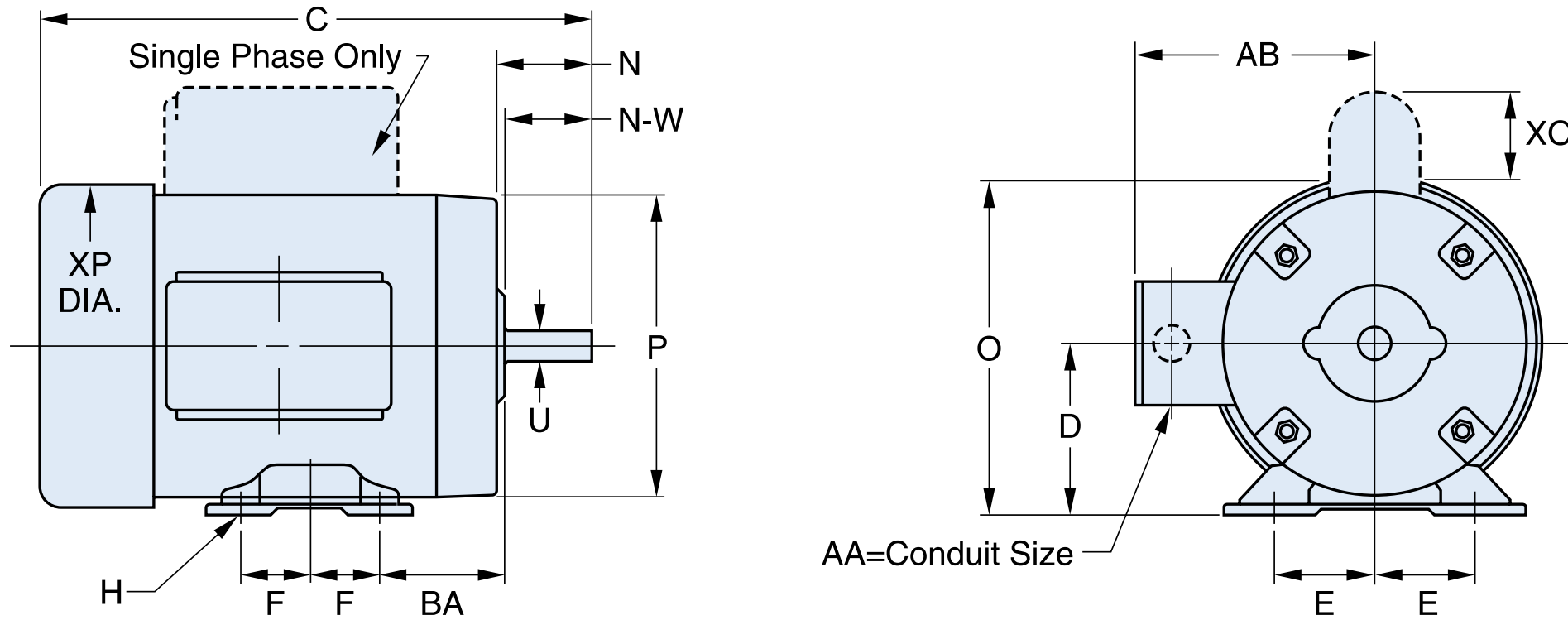


# QUICK REFERENCE MOTOR DIMENSIONS

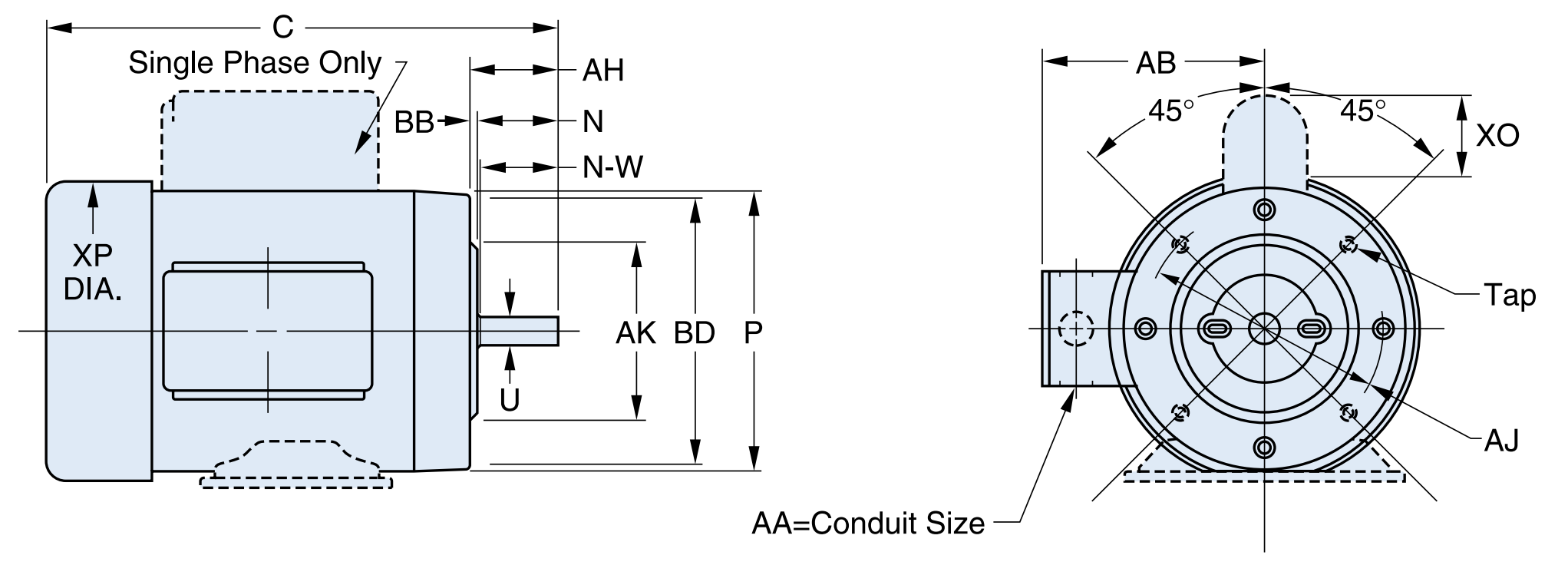
MOTOR DATA



## RIGID MOUNT



## C-FACE



## NEMA T FRAME DIMENSIONS

NEMA Series	D	E	F	H	N	O	P	U	N-W	AA Size	AB	AH	AJ	AK	BA*	BB	BD	XO/T <sup>A</sup>	XP	Tap	Key Size Sq.
42	2 5/8	1 3/4	27/32	9/32 Slot	1 1/4	5 1/16	4 7/8	3/8	1 1/8	3/8	4 1/2	1 5/16	3 3/4	3	2 1/16	1/8	4 7/8	1 5/8	5 1/8	1/4-20(4)	3/64 Flat
48	3	2 1/8	1 3/8	11/32 Slot	1 5/8	5 7/8	5 5/8	1/2	1 1/2	1/2	4 7/8	1 11/16	3 3/4	3	2 1/2	1/8	5	2 1/4	5 7/8	1/4-20(4)	3/64 Flat
56	3 1/2	2 7/16	1 1/2	11/32 Slot	2	6 7/8	6 5/8	5/8	1 7/8	1/2	5 3/8	2 1/16	5 7/8	4 1/2	2 3/4	1/8	6 1/2	2 1/4	7 1/4	3/8-16(4)	3/16
143T	3 1/2	2 3/4	2	11/32	2 3/8	6 7/8	6 5/8	7/8	2 1/4	3/4	5 3/8	2 1/8	5 7/8	4 1/2	2 1/4*	1/8	6 1/2	2 1/4	7 1/4	3/8-16(4)	3/16
145T	3 1/2	2 3/4	2 1/2	11/32	2 3/8	6 7/8	6 5/8	7/8	2 1/4	3/4	5 3/8	2 1/8	5 7/8	4 1/2	2 1/4*	1/8	6 1/2	2 1/4	7 1/4	3/8-16(4)	3/16
182T	4 1/2	3 3/4	2 1/4	13/32	-	8 3/4	8 1/2	1 1/8	2 3/4	3/4	6 3/8	2 5/8	7 1/4	8 1/2	2 3/4*	1/4	8 7/8	2 1/2	9 1/8	1/2-13(4)	1/4
184T	4 1/2	3 3/4	2 3/4	13/32	-	8 3/4	8 1/2	1 1/8	2 3/4	3/4	6 3/8	2 5/8	7 1/4	8 1/2	2 3/4*	1/4	8 7/8	2 1/2	9 1/8	1/2-13(4)	1/4
213T	5 1/4	4 1/4	2 3/4	13/32	-	10 5/8	9 3/4	1 3/8	3 3/8	3/4	8 3/8	3 1/8	7 1/4	8 1/2	3 1/2*	1/4	9	1 3/4	10 3/4	1/2-13(4)	5/16
215T	5 1/4	4 1/4	2 3/4	13/32	-	10 5/8	9 3/4	1 3/8	3 3/8	3/4	8 3/8	3 1/8	7 1/4	8 1/2	3 1/2*	1/4	9	1 3/4	10 3/4	1/2-13(4)	5/16
254T	6 1/4	5	4 1/8	17/32	-	13	13	1 5/8	4	1 1/4	10 1/2	3 3/4	7 1/4	8 1/2	4 1/4*	1/4	10	2 1/4	13	1/2-13(4)	3/8
256T	6 1/4	5	4 1/8	17/32	-	13	13	1 5/8	4	1 1/4	10 1/2	3 3/4	7 1/4	8 1/2	4 1/4*	1/4	10	2 1/4	13	1/2-13(4)	3/8
284T	7	5 1/2	4 3/4	17/32	-	14 1/2	13 3/8	1 7/8	4 5/8	1 1/2	11 7/8	4 3/8	9	10 1/2	4 3/4	1/4	11 1/4	2 1/4	14 1/2	1/2-13(4)	1/2
284TS	7	5 1/2	4 3/4	17/32	-	14 1/2	13 3/8	1 7/8	4 5/8	1 1/2	11 7/8	4 3/8	9	10 1/2	4 3/4	1/4	11 1/4	2 1/4	14 1/2	1/2-13(4)	1/2
286T	7	5 1/2	5 1/2	17/32	-	14 1/2	13 3/8	1 7/8	4 5/8	1 1/2	11 7/8	4 3/8	9	10 1/2	4 3/4	1/4	11 1/4	2 1/4	14 1/2	1/2-13(4)	1/2
286TS	7	5 1/2	5 1/2	17/32	-	14 1/2	13 3/8	1 7/8	4 5/8	1 1/2	11 7/8	4 3/8	9	10 1/2	4 3/4	1/4	11 1/4	2 1/4	14 1/2	1/2-13(4)	1/2
324T	8	6 1/4	5 1/4	21/32	-	16 1/8	15 7/8	2 1/8	5 1/4	2	13	5	11	12 1/2	5 1/4	1/4	14	2 5/8	16 1/8	5/8-11(4)	5/8
324TS	8	6 1/4	5 1/4	21/32	-	16 1/8	15 7/8	2 1/8	5 1/4	2	13	5	11	12 1/2	5 1/4	1/4	14	2 5/8	16 1/8	5/8-11(4)	5/8
326T	8	6 1/4	6	21/32	-	16 1/8	15 7/8	2 1/8	5 1/4	2	13	5	11	12 1/2	5 1/4	1/4	14	2 5/8	16 1/8	5/8-11(4)	5/8
326TS	8	6 1/4	6	21/32	-	16 1/8	15 7/8	2 1/8	5 1/4	2	13	5	11	12 1/2	5 1/4	1/4	14	2 5/8	16 1/8	5/8-11(4)	5/8
364T	9	7	5 5/8	21/32	-	18 3/8	17 7/8	2 3/8	5 7/8	3	14	5 5/8	11	12 1/2	5 7/8	1/4	14	2 5/8	18 3/8	5/8-11(8)	1/2
364TS	9	7	5 5/8	21/32	-	18 3/8	17 7/8	2 3/8	5 7/8	3	14	5 5/8	11	12 1/2	5 7/8	1/4	14	2 5/8	18 3/8	5/8-11(8)	1/2
365T	9	7	6 1/8	21/32	-	18 3/8	17 7/8	2 3/8	5 7/8	3	14	5 5/8	11	12 1/2	5 7/8	1/4	14	2 5/8	18 3/8	5/8-11(8)	1/2
365TS	9	7	6 1/8	21/32	-	18 3/8	17 7/8	2 3/8	5 7/8	3	14	5 5/8	11	12 1/2	5 7/8	1/4	14	2 5/8	18 3/8	5/8-11(8)	1/2
404T	10	8	6 1/8	13/16	-	20	19 5/8	2 7/8	7 1/4	3	16	7	11	12 1/2	6 5/8	1/4	14	2 5/8	20	5/8-11(8)	1/2
404TS	10	8	6 1/8	13/16	-	20	19 5/8	2 7/8	7 1/4	3	16	7	11	12 1/2	6 5/8	1/4	14	2 5/8	20	5/8-11(8)	1/2
405T	10	8	6 7/8	13/16	-	20	19 5/8	2 7/8	7 1/4	3	16	7	11	12 1/2	6 5/8	1/4	14	2 5/8	20	5/8-11(8)	1/2
405TS	10	8	6 7/8	13/16	-	20	19 5/8	2 7/8	7 1/4	3	16	7	11	12 1/2	6 5/8	1/4	14	2 5/8	20	5/8-11(8)	1/2
444T	11	9	7 1/4	13/16	-	21 3/4	21 3/8	3 3/8	8 1/2	3	20	8 1/4	14	16	7 1/2	1/4	18	3	21 1/2	5/8-11(8)	1/2
444TS	11	9	7 1/4	13/16	-	21 3/4	21 3/8	3 3/8	8 1/2	3	20	8 1/4	14	16	7 1/2	1/4	18	3	21 1/2	5/8-11(8)	1/2
445T	11	9	8 1/4	13/16	-	21 3/4	21 3/8	3 3/8	8 1/2	3	20	8 1/4	14	16	7 1/2	1/4	18	3	21 1/2	5/8-11(8)	1/2
445TS	11	9	8 1/4	13/16	-	21 3/4	21 3/8	3 3/8	8 1/2	3	20	8 1/4	14	16	7 1/2	1/4	18	3	21 1/2	5/8-11(8)	1/2
447T	11	9	10	13/16	-	23	22 3/4	3 3/8	8 1/2	3	20	8 1/4	14	16	7 1/2	1/4	18	3 1/4	24	5/8-11(8)	5/8
447TS	11	9	10	13/16	-	23	22 3/4	3 3/8	8 1/2	3	20	8 1/4	14	16	7 1/2	1/4	18	3 1/4	24	5/8-11(8)	5/8
449T	12 1/2	10	12 1/2	13/16	-	23	23 3/8	3 3/8	8 1/2	3	20	8 1/4	14	16	7 1/2	1/4	18	3 1/4	24	5/8-11(8)	5/8
449TS	12 1/2	10	12 1/2	13/16	-	23	23 3/8	3 3/8	8 1/2	3	20	8 1/4	14	16	7 1/2	1/4	18	3 1/4	24	5/8-11(8)	5/8

## PRIOR NEMA FRAME MTG. DIMENSIONS

	D	E	F	H	U	BA	N-W	Key
66	4 1/8	2 15/16	2 1/2	13/32	3/4	3 1/8	2 1/4	3/16
143	3 1/2	2 3/4	2 1/2	11/32	3/4	2 1/4	2	3/16
145	3 1/2	2 3/4	2 2	11/32	3/4	2 1/4	2	3/16
182	4 1/2	3 3/4	2 1/4	13/32	7/8	2 3/4	2 1/4	3/16
184	4 1/2	3 3/4	2 3/4	13/32	7/8	2 3/4	2 1/4	3/16
203	5	4	2 3/4	13/32	3/4	3 1/8	2 1/4	3/16
204	5	4	3 1/4	13/32	3/4	3 1/8	2 1/4	3/16
213	5 1/4	4 1/4	2 3/4	13/32	1 1/8	3 1/2	3	1/4
215	5 1/4	4 1/4	3 1/2	13/32	1 1/8	3 1/2	3	1/4
224	5 1/2	4 1/2	3 3/8	13/32	1	3 1/2	3	1/4
225	5 1/2	4 1/2	3 3/4	13/32	1	3 1/2	3	1/4
254	6 1/4	5	4 1/8	17/32	1 1/8	4 1/4	3 3/8	1/4
254U	6 1/4	5	4 1/8	17/32	1 1/8	4 1/4	3 3/8	1/4
256U	6 1/4	5	5	17/32	1 1/8	4 1/4	3 3/8	1/4
284	7	5 1/2	4 3/4	17/32	1 1/4	4 3/4	3 3/4	1/4
284U	7	5 1/2	4 3/4	17/32	1 1/4	4 3/4	3 3/4	1/4
286U	7	5 1/2	5 1/2	17/32	1 1/4	4 3/4	3 3/4	1/4
324	8	6 1/4	5 1/4	21/32	1 5/8	5 1/4	4 7/8	3/8
324U	8	6 1/4	5 1/4	21/32	1 5/8	5 1/4	4 7/8	3/8
326	8	6 1/4	6	21/32	1 5/8	5 1/4	4 7/8	3/8
326U	8	6 1/4	6	21/32	1 5/8	5 1/4	4 7/8	3/8
364	9	7	5 5/8	21/32	1 7/8	5 7/8	5 5/8	1/2
364U	9	7	5 5/8	21/32	1 7/8	5 7/8	5 5/8	1/2
365	9	7	6 1/8	21/32	1 7/8	5 7/8	5 5/8	1/2
365U	9	7	6 1/8	21/32	1 7/8	5 7/8	5 5/8	1/2
404	10	8	6 1/8	13/16	2 1/8	6 3/8	6 3/8	1/2
404U	10	8	6 1/8	13/16	2 1/8	6 3/8	6 3/8	1/2
405	10	8	6 7/8	13/16	2 1/8	6 3/8	6 3/8	1/2
405U	10	8	6 7/8	13/16	2 1/8	6 3/8	6 3/8	1/2
444	11	9	7 1/4	13/16	2 3/8	7 1/8	7 1/8	5/8
444U	11	9	7 1/4	13/16	2 3/8	7 1/8	7 1/8	5/8
445	11	9	8 1/4	13/16	2 3/8	7 1/8	7 1/8	5/8
445U	11	9	8 1/4	13/16	2 3/8	7 1/8	7 1/8	5/8
504U	12 1/2	10	8	15/16	2 7/8	8 1/2	8 5/8	3/4
505	12 1/2	10	8	15/16	2 7/8	8 1/2	8 5/8	3/4

The dimensions listed here are intended for reference purposes only. Dimensions shown in the shaded areas will not change from one brand to another for motors built to NEMA rigid base or "C" face mounted dimensional standards. Other dimensions shown are determined by the manufacturer rather than NEMA standards. Those listed are for LEESON® motors and may differ from other brands. Beware of NEMA frame suffix letters other than those listed above as they denote different mounting or shaft dimensions. For example, suffix letter Y denotes special mounting provisions and Z denotes special shaft dimensions (as in 184TYZ for example). Motors having no suffix letters (other than NEMA frames 42, 48 and 56) are built to prior NEMA standards.

Prefix letters are often used by manufacturers (as in G184T) to indicate the overall length of a motor but do not denote differences in the NEMA standardized mounting dimensions. The overall length ("C" dimension) will change with the enclosure, horsepower and speed for the same brand and will vary from one brand to another for motors of the same HP, speed or enclosure. For detailed dimensions of all LEESON motors, go to "products" then "product catalog" on www.leeson.com

\* NEMA C face motors also having a rigid base have different BA dimensions in the following instances:  
 143TC & 145TC - 2 3/4" instead of 2 1/4"  
 182TC & 184TC - 3 1/2" instead of 2 3/4"  
 213TC & 215TC - 4 1/4" instead of 3 1/2"  
 254TC & 256TC - 4 3/4" instead of 4 1/4"

<sup>A</sup> XO denotes clearance for the capacitors for single phase motors through the 215T frame. On three phase 254T frame and large motors, T denotes clearance for the lifting eyebolt.

## IEC/NEMA COMPARISON

IEC NEMA	DIMENSIONS IN MILLIMETERS								KW/HP- FRAME ASSIGNMENTS		
	D	E	F	H	U	BA	N-W	2 Pole	4 Pole	6 Pole	
56	56	45	35.5	5.8	9	36	20	-	-	-	
N/A	-	-	-	-	-	-	-	-	-	-	
63	63	50	40	7	11	40	23	.25 KW	.18 KW	-	
42	66.7	44.5	21.4	7.1	9.5	52.4	-	1/3 HP	1/4 HP	-	
71	71	56	45	7	14	45	30	.55	.37	-	
48	76.2	54	34.9	8.7	12.7	63.5	38.1	3/4	1/2	-	
80	80	62.5	50	10	19	50	40	1.1	.75	.55 KW	
56	88.9	61.9	38.1	8.7	15.9	69.9	47.				