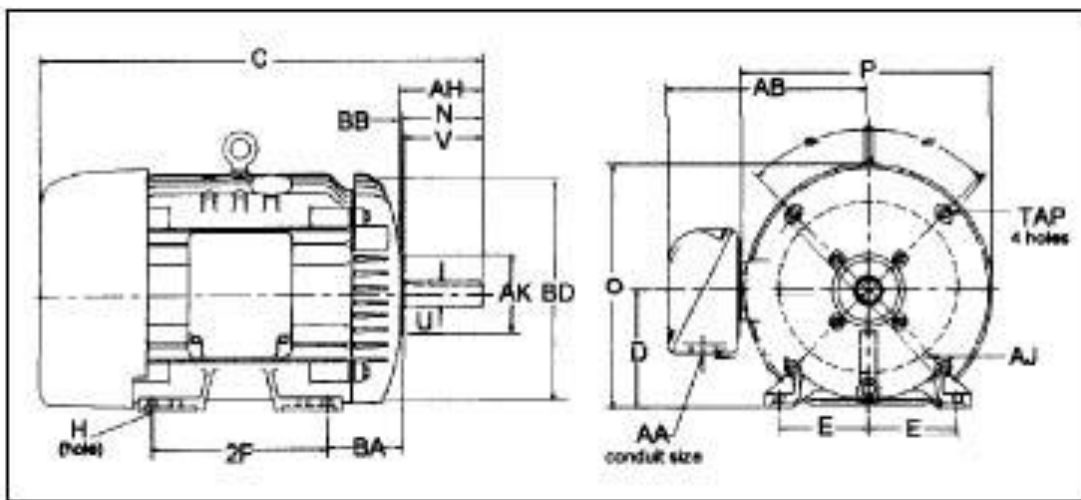


Understanding Motor Frame Sizing

The purpose of the motor frame system is to allow you to substitute one manufacturer's motor for another brand, if it's not a custom OEM frame. In order for a motor to list a specific motor frame on its nameplate, it must have mounting dimensions common to that frame. Notice I said mounting dimensions. That doesn't mean every 184T frame motor is exactly alike, just that they will mount in the same location as other 184T frames. So, what are the mounting dimensions?

The most common mounting dimensions are as follows (the dimension designations are in parentheses - NEMA first, then IEC):



Shaft height (D), (U)	;	Front-to-back mounting holes (2F), (B)
Shaft length (N-W), (E)	;	Side-to-side mounting holes (2E), (A)
Shaft diameter (U), (D)	;	C or D flange mounting hole diameter (AJ), (M)
Distance from front mounting to back of shaft (BA), (C)	;	C or D flange mounting lip (AK), (N)

Frame	D	E	2F	H	U	BA	N-W	V min.	R	ES min.	S
48	3	2.12	2.75	0.3	0.5	2.5	1.5	-	0.453	-	Flat
56	3.5	2.44	3	0.3	0.63	2.8	1.88	-	0.517	1.41	0.19
143	3.5	2.75	4	0.3	0.75	2.3	2	1.75	0.643	1.41	0.19
143T	3.5	2.75	4	0.3	0.88	2.3	2.25	2	0.771	1.41	0.19
145	3.5	2.75	5	0.3	0.75	2.3	2	1.75	0.643	1.41	0.19
145T	3.5	2.75	5	0.3	0.88	2.3	2.25	2	0.771	1.41	0.19
182	4.5	3.75	4.5	0.4	0.88	2.8	2.25	2	0.771	1.41	0.19
182T	4.5	3.75	4.5	0.4	1.13	2.8	2.75	2.5	0.986	1.78	0.25

184	4.5	3.75	5.5	0.4	0.88	2.8	2.25	2	0.771	1.41	0.19
184T	4.5	3.75	5.5	0.4	1.13	2.8	2.75	2.5	0.986	1.78	0.25
203	5	4	5.5	0.4	0.75	3.1	2.25	2	0.643	1.53	0.19
204	5	4	6.5	0.4	0.75	3.1	2.25	2	0.643	1.53	0.19
213	5.3	4.25	5.5	0.4	1.13	3.5	3	2.75	0.986	2.03	0.25
213T	5.3	4.25	5.5	0.4	1.38	3.5	3.38	3.12	1.201	2.41	0.31
215	5.3	4.25	7	0.4	1.13	3.5	3	2.75	0.986	2.03	0.25
215T	5.3	4.25	7	0.4	1.38	3.5	3.38	3.12	1.201	2.41	0.31
224	5.5	4.5	6.75	0.4	1	3.5	3	2.75	0.857	2.03	0.25
225	5.5	4.5	7.5	0.4	1	3.5	3	2.75	0.857	2.03	0.25
254	6.3	5	8.25	0.5	1.13	4.3	3.37	3.12	0.986	2.03	0.25
254U	6.3	5	8.25	0.5	1.38	4.3	3.75	3.5	1.201	2.78	0.31
254T	6.3	5	8.25	0.5	1.63	4.3	4	3.75	1.416	2.91	0.38
256U	6.3	5	10	0.5	1.38	4.3	3.75	3.5	1.201	2.78	0.31
256T	6.3	5	10	0.5	1.63	4.3	4	3.75	1.416	2.91	0.38
284	7	5.5	9.5	0.5	1.25	4.8	3.75	3.5	0.986	2.03	0.25
284U	7	5.5	9.5	0.5	1.63	4.8	4.88	4.62	1.416	3.78	0.38
284T	7	5.5	9.5	0.5	1.88	4.8	4.62	4.38	1.591	3.28	0.5
284TS	7	5.5	9.5	0.5	1.63	4.8	3.25	3	1.416	1.91	0.38
286U	7	5.5	11	0.5	1.63	4.8	4.88	4.62	1.416	3.78	0.38
286T	7	5.5	11	0.5	1.88	4.8	4.62	4.38	1.591	3.28	0.5
286TS	7	5.5	11	0.5	1.63	4.8	3.25	3	1.416	1.91	3.75
324	8	6.25	10.5	0.7	1.63	5.3	4.87	4.62	1.416	3.78	0.38
324U	8	6.25	10.5	0.7	1.88	5.3	5.62	5.38	1.591	4.28	0.5
324S	8	6.25	10.5	0.7	1.63	5.3	3.25	3	1.416	1.91	0.38
324T	8	6.25	10.5	0.7	2.13	5.3	5.25	5	1.845	3.91	0.5
324TS	8	6.25	10.5	0.7	1.88	5.3	3.75	3.5	1.591	2.03	0.5
326	8	6.25	12	0.7	1.63	5.3	4.87	4.62	1.416	3.78	0.38
326U	8	6.25	12	0.7	1.88	5.3	5.62	5.38	1.591	4.28	0.5
326S	8	6.25	12	0.7	1.63	5.3	3.25	3	1.416	1.91	0.38
326T	8	6.25	12	0.7	2.13	5.3	5.25	5	1.845	3.91	0.5
326TS	8	6.25	12	0.7	1.88	5.3	3.75	3.5	1.591	2.03	0.5
364	9	7	11.3	0.7	1.88	5.9	5.62	5.38	1.591	4.28	0.5
364S	9	7	11.3	0.7	1.63	5.9	3.25	3	1.416	1.91	0.38
364U	9	7	11.3	0.7	2.13	5.9	6.37	6.12	1.845	5.03	0.5
364US	9	7	11.3	0.7	1.88	5.9	3.75	3.5	1.591	2.03	0.5
364T	9	7	11.3	0.7	2.38	5.9	5.88	5.62	2.01	4.28	0.63
364TS	9	7	11.3	0.7	1.88	5.9	3.75	3.5	1.591	2.03	0.5
365	9	7	12.3	0.7	1.88	5.9	5.62	5.38	1.591	4.28	0.5
365S	9	7	12.3	0.7	1.63	5.9	3.25	3	1.416	1.91	0.38
365U	9	7	12.3	0.7	2.13	5.9	6.37	6.12	1.845	5.03	0.5
365US	9	7	12.3	0.7	1.88	5.9	3.75	3.5	1.591	2.03	0.5
365T	9	7	12.3	0.7	2.38	5.9	5.88	5.62	2.021	4.28	0.63

365TS	9	7	12.3	0.7	1.88	5.9	3.75	3.5	1.591	2.03	0.5
404	10	8	12.3	0.8	2.13	6.6	6.37	6.12	1.845	5.03	0.5
404S	10	8	12.3	0.8	1.88	6.6	3.75	3.5	1.591	2.03	0.5
404U	10	8	12.3	0.8	2.38	6.6	7.12	6.88	2.021	5.53	0.63
404US	10	8	12.3	0.8	2.13	6.6	4.25	4	1.845	2.78	0.5
404T	10	8	12.3	0.8	2.88	6.6	7.25	7	2.45	5.65	0.75
404TS	10	8	12.3	0.8	2.13	6.6	4.25	4	1.845	2.78	0.5
405	10	8	13.8	0.8	2.13	6.6	6.37	6.12	1.845	5.03	0.5
405S	10	8	13.8	0.8	1.88	6.6	3.75	3.5	1.591	2.03	0.5
405U	10	8	13.8	0.8	2.38	6.6	7.12	6.88	2.021	5.53	0.63
405US	10	8	13.8	0.8	2.13	6.6	4.25	4	1.845	2.78	0.5
405T	10	8	13.8	0.8	2.88	6.6	7.25	7	2.45	5.65	0.75
405TS	10	8	13.8	0.8	2.13	6.6	4.25	4	1.845	2.78	0.5
444	11	9	14.5	0.8	2.38	7.5	7.12	6.88	2.021	5.53	0.63
444S	11	9	14.5	0.8	2.13	7.5	4.25	4	1.845	2.78	0.5
444U	11	9	14.5	0.8	2.88	7.5	8.62	8.38	2.45	7.03	0.75
444US	11	9	14.5	0.8	2.13	7.5	4.25	4	1.845	2.78	0.5
444T	11	9	14.5	0.8	3.38	7.5	8.5	8.25	2.88	6.91	0.88
444TS	11	9	14.5	0.8	2.38	7.5	4.75	4.5	2.021	3.03	0.63
445	11	9	16.5	0.8	2.38	7.5	7.12	6.88	2.021	5.53	0.63
445S	11	9	16.5	0.8	2.13	7.5	4.25	4	1.845	2.78	0.5
445U	11	9	16.5	0.8	2.88	7.5	8.62	8.38	2.45	7.03	0.75
445US	11	9	16.5	0.8	2.13	7.5	4.25	4	1.845	2.78	0.5
445T	11	9	16.5	0.8	3.38	7.5	8.5	8.25	2.88	6.91	0.88
445TS	11	9	16.5	0.8	2.38	7.5	4.75	4.5	2.021	3.03	0.63
447TS	11	9	20	MF	MF	MF	MF	MF	MF	MF	MF
449TS	11	9	25	MF	MF	MF	MF	MF	MF	MF	MF
504U	13	10	16	0.9	2.88	8.5	8.62	8.38	2.45	7.28	0.75
505	13	10	18	0.9	2.88	8.5	8.62	8.38	2.45	7.28	0.75
505S	13	10	18	0.9	2.13	8.5	4.25	4	1.845	2.78	0.5

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