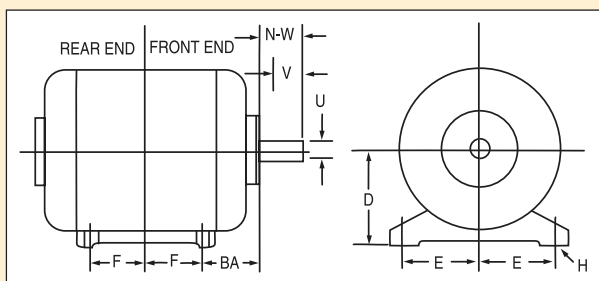


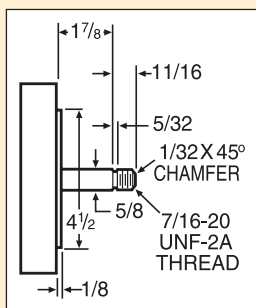
## Motor Dimensional Chart

Standardized motor dimensions—established by the National Electrical Manufacturers Association (NEMA)—are tabulated below and apply to all base-mounted motors listed herein that carry a NEMA frame designation.

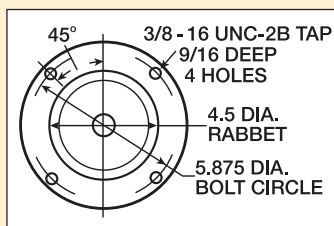


### NEMA C- AND J-FACE MOUNTING DIMENSIONS

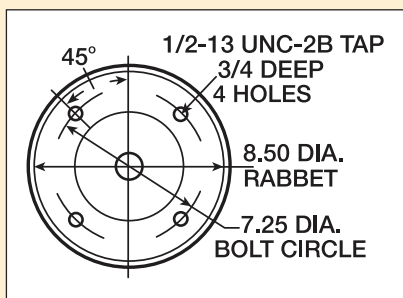
Mounting dimensions of the 56J-Face are exactly the same as the NEMA 56C. 56J-Face has a threaded shaft of stainless steel while all others have a keyed steel shaft. See illustrations and table below for specifics.



**56J SHAFT**



**56C, 56HC, 56J, 143TC AND 145TC - FACE DIMENSIONS**



**182TC THRU 256TC - FACE DIMENSIONS**

NEMA Face	Dia. (U)	Shaft Long (N-W)	Rabbit Dia.	Bolt Circle Dia.
42C	3/8	1 1/8	3	3 3/4
48C	1/2	1 1/2	3	3 3/4
56C	3/4	1 3/4	4 1/8	5 1/8
56HC†	3/4	1 3/4	4 1/8	5 1/8
56J	3/4	2 1/8	4 1/8	5 1/8
143TC & 145TC	3/4	2 1/8	4 1/8	5 1/8
146ATC & 1412ATC	3/4	2 1/8	4 1/8	5 1/8
L182ACY & 186ACY	3/4	2 1/8	4 1/8	5 1/8
182TC & 184TC	3/4	2 3/8	8 1/8	7 1/4
186ATC & 189ATC	3/4	2 1/8	8 1/8	7 1/4
213TC & 215TC	3/4	3 3/8	8 1/8	7 1/4
219ATC & 2110ATC	3/4	2 3/8	8 1/8	7 1/4
254TC & 256TC	3/4	4	8 1/8	7 1/4
284TC & 286TC	3/4	4 3/8	10 1/8	9

NEMA Frame	D*	2E	2F	BA	H	N-W	U	V\$ Min.	Wide	Key Thick	Long
42	2 5/8	3 1/2	1 1/16	2 1/16	9/32 slot	1 1/2	3/8	—	—	3/64 flat	—
48	3	4 1/4	2 3/4	2 1/2	1 1/32 slot	1 1/2	1/2	—	—	3/64 flat	—
48H	3	4 1/4	4 3/4	2 1/2	1 1/32 slot	1 1/2	1/2	—	—	3/64 flat	—
56	3 1/2	4 3/8	3	2 3/4	1 1/32 slot	1 1/2	5/8	—	3/16	3/16	1 3/8
56H	3 1/2	4 3/8	3 & 5 1/2	2 3/4	1 1/32 slot	1 1/2	5/8	—	3/16	3/16	1 3/8
56HZ	3 1/2	**	**	**	**	2 1/4	7/8	2	3/16	3/16	1 3/8
66	4 1/8	5 1/8	5	3 1/8	1 1/32 slot	2 1/4	3/4	—	3/16	3/16	1 3/8
143T	3 1/2	5 1/2	4	2 1/4	1 1/32 dia.	2 1/4	7/8	2	3/16	3/16	1 3/8
145T	3 1/2	5 1/2	5	2 1/4	1 1/32 dia.	2 1/4	7/8	2	3/16	3/16	1 3/8
146AT	3 1/2	5 1/2	5 1/2	2 3/4	1 1/32 dia.	2 1/4	7/8	2	3/16	3/16	1 3/8
148AT	3 1/2	5 1/2	7	2 3/4	1 1/32 dia.	2 1/4	7/8	2	3/16	3/16	1 3/8
149AT	3 1/2	5 1/2	8	2 3/4	1 1/32 dia.	2 1/4	7/8	2	3/16	3/16	1 3/8
1412AT	3 1/2	5 1/2	11	2 3/4	1 1/32 dia.	2 1/4	7/8	2	3/16	3/16	1 3/8
182	4 1/2	7 1/2	4 1/2	2 3/4	1 3/32 dia.	2 3/4	1 1/8	2 1/2	1/4	1/4	1 3/8
184	4 1/2	7 1/2	5 1/2	2 3/4	1 3/32 dia.	2 3/4	1 1/8	2 1/2	1/4	1/4	1 3/8
182T	4 1/2	7 1/2	4 1/2	2 3/4	1 3/32 dia.	2 3/4	1 1/8	2 1/2	1/4	1/4	1 3/8
184T	4 1/2	7 1/2	5 1/2	2 3/4	1 3/32 dia.	2 3/4	1 1/8	2 1/2	1/4	1/4	1 3/8
182AT	4 1/2	7 1/2	4 1/2	2 3/4	1 3/32 dia.	2 3/4	1 1/8	2 1/2	1/4	1/4	1 3/8
L182ACY	4 1/2	7 1/2	4 1/2	2 3/4	1 3/32 dia.	2 3/4	1 1/8	2 1/2	1/4	1/4	1 3/8
L182AT	4 1/2	7 1/2	4 1/2	2 3/4	1 3/32 dia.	2 3/4	1 1/8	2 1/2	1/4	1/4	1 3/8
186ACY	4 1/2	7 1/2	7	2 3/4	1 3/32 dia.	2 3/4	1 1/8	2 1/2	1/4	1/4	1 3/8
186AT	4 1/2	7 1/2	7	2 3/4	1 3/32 dia.	2 3/4	1 1/8	2 1/2	1/4	1/4	1 3/8
L186AT	4 1/2	7 1/2	7	2 3/4	1 3/32 dia.	2 3/4	1 1/8	2 1/2	1/4	1/4	1 3/8
189AT	4 1/2	7 1/2	10	2 3/4	1 3/32 dia.	2 3/4	1 1/8	2 1/2	1/4	1/4	1 3/8
203#	5	8	5 1/2	3 3/8	1 3/32 dia.	2 3/4	3/4	2	3/16	3/16	1 3/8
204#	5	8	6 1/2	3 3/8	1 3/32 dia.	2 3/4	3/4	2	3/16	3/16	1 3/8
213	5 1/4	8 1/2	5 1/2	3 1/2	1 3/32 dia.	3	1 1/8	2 3/4	1/4	1/4	2
215	5 1/4	8 1/2	7	3 1/2	1 3/32 dia.	3	1 1/8	2 3/4	1/4	1/4	2
213T	5 1/4	8 1/2	5 1/2	3 1/2	1 3/32 dia.	3 3/8	1 3/8	3 1/8	3/16	3/16	2 3/8
215T	5 1/4	8 1/2	7	3 1/2	1 3/32 dia.	3 3/8	1 3/8	3 1/8	3/16	3/16	2 3/8
219AT	5 1/4	8 1/2	11	3 1/2	1 3/32 dia.	2 3/4	1 3/8	2 1/2	3/16	3/16	1 3/4
2110AT	5 1/4	8 1/2	12 1/2	3 1/2	1 3/32 dia.	2 3/4	1 3/8	2 1/2	3/16	3/16	1 3/4
224#	5 1/2	9	6 3/4	3 1/2	1 3/32 dia.	3	1	2 3/4	1/4	1/4	2
225#	5 1/2	9	7 1/2	3 1/2	1 3/32 dia.	3	1	2 3/4	1/4	1/4	2
254#	6 1/4	10	8 1/4	4 1/4	2 1/32 dia.	3 3/8	1 1/8	3 1/8	1/4	1/4	2 3/8
254U	6 1/4	10	8 1/4	4 1/4	2 1/32 dia.	3 3/8	1 1/8	3 1/8	3/16	3/16	2 3/8
256U	6 1/4	10	10	4 1/4	1 7/32 dia.	3 3/8	1 1/8	3 1/8	3/16	3/16	2 3/8
254T	6 1/4	10	8 1/4	4 1/4	1 7/32 dia.	4	1 3/8	3 3/8	3/8	3/8	2 3/4
256T	6 1/4	10	10	4 1/4	1 7/32 dia.	4	1 3/8	3 3/8	3/8	3/8	2 3/4
284#	7	11	9 1/2	4 3/4	2 1/32 dia.	3 3/4	1 1/4	3 1/2	1/4	1/4	2 3/8
284U	7	11	9 1/2	4 3/4	2 1/32 dia.	4 1/8	1 3/8	4 3/8	3/8	3/8	3 3/4
286U	7	11	11	4 3/4	2 1/32 dia.	4 1/8	1 3/8	4 3/8	3/8	3/8	3 3/4
284T	7	11	9 1/2	4 3/4	1 7/32 dia.	4 3/8	1 3/8	4 3/8	1/2	1/2	3 1/4
286T	7	11	11	4 3/4	1 7/32 dia.	4 3/8	1 3/8	4 3/8	1/2	1/2	3 1/4
284TS	7	11	9 1/2	4 3/4	1 7/32 dia.	3 1/4	1 1/8	3	3/8	3/8	1 1/8
286TS	7	11	11	4 3/4	1 7/32 dia.	3 1/4	1 1/8	3	3/8	3/8	1 1/8
324#	8	12 1/2	10 1/2	5 1/4	2 1/32 dia.	4 1/8	1 3/8	4 3/8	3/8	3/8	3 3/4
326#	8	12 1/2	12	5 1/4	2 1/32 dia.	4 1/8	1 3/8	4 3/8	3/8	3/8	3 3/4
324U	8	12 1/2	10 1/2	5 1/4	2 1/32 dia.	5 1/8	1 1/8	5 3/8	1/2	1/2	4 1/4
326U	8	12 1/2	12	5 1/4	2 1/32 dia.	5 1/8	1 1/8	5 3/8	1/2	1/2	4 1/4
324T	8	12 1/2	10 1/2	5 1/4	2 1/32 dia.	5 1/4	2 1/8	5	1/2	1/2	3 3/8
326T	8	12 1/2	12	5 1/4	2 1/32 dia.	5 1/4	2 1/8	5	1/2	1/2	3 3/8
324TS	8	12 1/2	10 1/2	5 1/4	2 1/32 dia.	3 3/4	1 1/8	3 1/2	1/2	1/2	2
326TS	8	12 1/2	12	5 1/4	2 1/32 dia.	3 3/4	1 1/8	3 1/2	1/2	1/2	2
364#	9	14	11 1/4	5 1/8	2 1/32 dia.	5 1/8	1 1/8	5 3/8	1/2	1/2	4 1/4
364S#	9	14	11 1/4	5 1/8	2 1/32 dia.	3 1/4	1 3/8	3	3/8	3/8	1 1/8
365#	9	14	12 1/2	5 1/8	2 1/32 dia.	5 1/8	1 1/8	5 3/8	1/2	1/2	4 1/4
364U	9	14	11 1/4	5 1/8	2 1/32 dia.	6 3/8	2 1/8	6 1/8	1/2	1/2	5
365U	9	14	12 1/2	5 1/8	2 1/32 dia.	6 3/8	2 1/8	6 1/8	1/2	1/2	5
364T	9	14	11 1/4	5 1/8	2 1/32 dia.	5 1/8	2 3/8	5 3/8	3/8	3/8	4 1/4
365T	9	14	12 1/2	5 1/8	2 1/32 dia.	5 1/8	2 3/8	5 3/8	3/8	3/8	4 1/4
364TS	9	14	11 1/4	5 1/8	2 1/32 dia.	3 3/4	1 1/8	3 1/2	1/2	1/2	2
365TS	9	14	12 1/2	5 1/8	2 1/32 dia.	3 3/4	1 1/8	3 1/2	1/2	1/2	2
404T	10	16	12 1/4	6 3/8	1 3/16 dia.	7 1/4	2 1/8	7	3/4	3/4	5 3/8
405T	10	16	13 3/4	6 3/8	1 3/16 dia.	7 1/4	2 1/8	7	3/4	3/4	5 3/8
404TS	10	16	12 1/4	6 3/8	1 3/16 dia.	4 1/4	2 1/8	4	1/2	1/2	2 3/4
405TS	10	16	13 3/4	6 3/8	1 3/16 dia.	4 1/4	2 1/8	4	1/2	1/2	2 3/4
404U	10	16	12 1/4	6 3/8	1 3/16 dia.	7 1/8	2 3/8	6 3/8	3/8	3/8	5 1/2
405U	10	16	13 3/4	6 3/8	1 3/16 dia.	7 1/8	2 3/8	6 3/8	3/8	3/8	5 1/2
444T	11	18	14 1/2	7 1/2	1 3/16 dia.	8 1/2	3 3/8	8 1/4	1/8	1/8	6 1/8
445T	11	18	16 1/2	7 1/2	1 3/16 dia.	8 1/2	3 3/8	8 1/4	1/8	1/8	6 1/8
447TS	11	18	14 1/2	7 1/2	1 3/16 dia.	4 3/4	2 3/8	4 1/2	5/8	5/8	3
447TSS	11	18	16 1/2	7 1/2	1 3/16 dia.	4 3/4	2 3/8	4 1/2	5/8	5/8	3
445TS	11	18	16 1/2	7 1/2	1 3/16 dia.	8 3/8	2 3/8	8 3/8	3/4	3/4	7
444U	11	18	14 1/2	7 1/2	1 3/16 dia.	8 3/8	2 3/8	8 3/8	3/4	3/4	7
445U	11	18	16 1/2	7 1/2	1 3/16 dia.	8 3/8	2 3/8	8 3/8	3/4	3/4	7
449T	11	18	25	7 1/2	1 3/16 dia.	8 1/2	3 3/8	8 1/4	1/8	1/8	6 1/8
449TS	11	18	25	7 1/2	1 3/16 dia.	4 3/4	2 3/8	4 1/2	5/8	5/8	3

Dimension "D" will never be greater than the above values on rigid mount motors, but it may be less so that shims up to 1/32" (1/16" on 364U and 365U frames) may be required for certain machines.

† Designated 56H motors have 2 sets of 2F mounting holes—3" and 5".

^ Standard short shaft for direct-drive applications.

# Discontinued NEMA frame.

\*\* Base of Dayton 56HZ frame motors has holes and slots to match NEMA 56, 56H and 145T mounting dimensions. Certain NEMA 56Z frame motors have 1/2" dia. x 1 1/2" long shaft with 3/64" flat. These exceptions are noted in this catalog.

† Dimension "V" is shaft length available for coupling, pinion, or pulley hub—this is a minimum value.

\$ The 2F dimension is 20.

## NEMA Letter Designations Following Frame Number

C: Face-mount; see this page.

H: Designated 56H motors have 2 sets of 2F mounting holes—3" and 5".

J: Face-mount for jet pumps; see this page for dimensions.

K: Has hub for sump pump mounting; see column at left for dimensions.

M, N: Flange mount for oil burner; see page 59.

T, U: Integral HP motor dimension standards set by NEMA in 1964 and 1953.

V: Vertical mount.

Y: Nonstandard mounting; see manufacturer's drawing for mounting dimensions.

Z: Nonstandard shaft (N-W+U dimensions); see manufacturer's drawing for shaft dimensions.