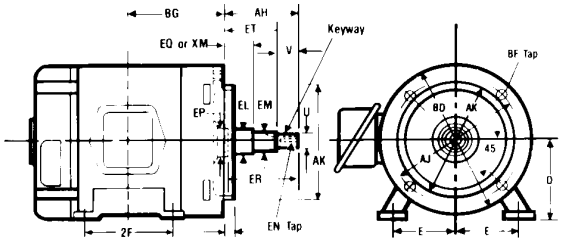
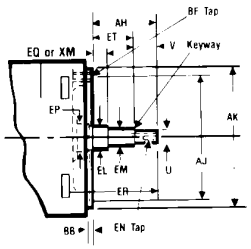
Close-Coupled Pump Motors

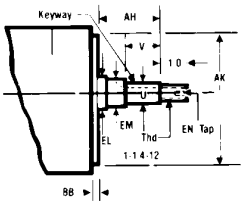
- **Type JM and Type JP NEMA Standard**
- **West Coast Pump Type Century Standard**



Types JM and JP
143-184 Frame
WCP Type
143-145 Frame



Types JM and JP
213-365 Frame
WCP Type
182-326 Frame



WCP Type
364-445 Frame

Tolerances — Indicator Reading in Inches

Type Mounting	Face Runout	Rabbet-Eccentricity	Shaft Runout
Types JM and JP	Frames 143-256: .004 Frames 284-365: .006	Frames 143-256: .004 Frames 284-365: .006	Frames 143-256: .002 Frames 284-365: .003
West Coast Pump	Frames 143-286: .004 Frames 324-445: .006	Frames 143-286: .004 Frames 324-445: .007	Frames 143-286: .002 Frames 324-445: .003

Frame	Keyway			D			U		AH	AJ	AK			BF Tap			BG	EL	EM	EN Tap		EP	EQ or	ER	ET
(1)	W	D	L	(2)	E	2F	(4)	V	(5)	(6)	(7)	BB	BD	Thrd.	No.	Dpth.	(3)	(4)	(4)	Thrd.	Dpth.	Min.	XM(5)	Min.	(2)
143JM	3/16	3/32	1.63	3.50	2.75	4.00	.8745	—	4.250	5.875	4.500	.14	6.41	3/8-16	4	.56	4.88	1.156	1.000	3/8-16	.75	1.16	.625	4.250	2.875
143JP	3/16	3/32	1.63	3.50	2.75	4.00	.8745	—	7.312	5.875	4.500	.14	6.41	3/8-16	4	.56	4.88	1.156	1.000	3/8-16	.75	1.16	1.563	7.313	5.937
143TCZ	3/16	3/32	1.63	3.50	2.75	4.00	.8745	1.38	7.312	5.875	4.500	.14	6.41	3/8-16	4	.56	4.88	1.250	1.000	3/8-16	1.00	—	1.563	—	—
145JM	3/16	3/32	1.63	3.50	2.75	5.00	.8745	—	4.250	5.875	4.500	.14	6.41	3/8-16	4	.56	5.38	1.156	1.000	3/8-16	.75	1.16	.625	4.250	2.875
145JP	3/16	3/32	1.63	3.50	2.75	5.00	.8745	—	7.312	5.875	4.500	.14	6.41	3/8-16	4	.56	4.88	1.156	1.000	3/8-16	.75	1.16	1.563	7.313	5.937
145TCZ	3/16	3/32	1.63	3.50	2.75	5.00	.8745	1.38	7.312	5.875	4.500	.14	6.41	3/8-16	4	.56	4.88	1.250	1.000	3/8-16	1.00	—	1.563	—	—
182JM	3/16	3/32	1.63	4.50	3.75	4.50	.8745	—	4.250	5.875	4.500	.14	6.41	3/8-16	4	.56	5.88	1.250	1.000	3/8-16	.75	1.25	.625	4.250	2.875
182JP	3/16	3/32	1.63	4.50	3.75	4.50	.8745	—	7.312	5.875	4.500	.14	6.41	3/8-16	4	.56	5.88	1.250	1.000	3/8-16	.75	1.25	1.563	7.313	5.937
182TCZ	3/16	3/32	1.63	4.50	3.75	4.50	.8745	1.38	7.312	7.250	8.500	.27	8.96	1/2-13	4	.75	5.88	1.250	1.000	3/8-16	1.00	—	1.563	—	—
184JM	3/16	3/32	1.63	4.50	3.75	5.50	.8745	—	4.250	5.875	4.500	.14	6.41	3/8-16	4	.56	6.38	1.250	1.000	3/8-16	.75	1.25	.625	4.250	2.875
184JP	3/16	3/32	1.63	4.50	3.75	5.50	.8745	—	7.312	5.875	4.500	.14	6.41	3/8-16	4	.56	6.38	1.250	1.000	3/8-16	.75	1.25	1.563	7.313	5.937
184TCZ	3/16	3/32	1.63	4.50	3.75	5.50	.8745	1.38	7.312	7.250	8.500	.27	8.96	1/2-13	4	.75	6.38	1.250	1.000	3/8-16	1.00	—	1.563	—	—
213JM	3/16	3/32	1.63	5.25	4.25	5.50	.8745	—	4.250	7.250	8.500	.27	8.75	1/2-13	4	.75	7.25	1.250	1.000	3/8-16	.75	1.75	.625	4.250	2.875
213JP	1/4	1/8	2.50	5.25	4.25	5.50	1.2495	—	8.125	7.250	8.500	.27	8.75	1/2-13	4	.75	7.25	1.750	1.375	1/2-13	1.00	1.75	2.375	8.125	5.875
213TCZ	3/16	3/32	1.63	5.25	4.25	5.50	.8745	1.38	7.312	7.250	8.500	.27	8.75	1/2-13	4	.75	7.25	1.250	1.000	3/8-16	1.00	—	1.563	—	—
215JM	3/16	3/32	1.63	5.25	4.25	7.00	.8745	—	4.250	7.250	8.500	.27	8.75	1/2-13	4	.75	8.00	1.250	1.000	3/8-16	.75	1.75	.625	4.250	2.875
215JP	1/4	1/8	2.50	5.25	4.25	7.00	1.2495	—	8.125	7.250	8.500	.27	8.75	1/2-13	4	.75	8.00	1.750	1.375	1/2-13	1.00	1.75	2.375	8.125	5.875
215TCZ	3/16	3/32	1.63	5.25	4.25	7.00	.8745	1.38	7.312	7.250	8.500	.27	8.75	1/2-13	4	.75	8.00	1.250	1.000	3/8-16	1.00	—	1.563	—	—
254JM	1/4	1/8	2.50	6.25	5.00	8.26	1.2495	—	5.250	7.250	8.500	.27	9.25	1/2-13	4	.75	9.13	1.750	1.375	1/2-13	1.00	1.75	.625	5.250	3.000
254JP	1/4	1/8	2.50	6.25	5.00	8.26	1.2495	—	8.125	7.250	8.500	.27	9.25	1/2-13	4	.75	9.13	1.750	1.375	1/2-13	1.00	1.75	2.375	8.125	5.875
254TCZ	1/4	1/8	2.63	6.25	5.00	8.26	1.2495	2.25	8.125	7.250	8.500	.27	9.25	1/2-13	4	.75	9.13	1.750	1.375	1/2-13	1.25	—	2.375	—	—
256JM	1/4	1/8	2.50	6.25	5.00	10.00	1.2495	—	5.250	7.250	8.500	.27	9.25	1/2-13	4	.75	10.00	1.750	1.375	1/2-13	1.00	1.75	.625	5.250	3.000
256JP	1/4	1/8	2.50	6.25	5.00	10.00	1.2495	—	8.125	7.250	8.500	.27	9.25	1/2-13	4	.75	10.00	1.750	1.375	1/2-13	1.00	1.75	2.375	8.125	5.875
256TCZ	1/4	1/8	2.63	6.25	5.00	10.00	1.2495	2.25	8.125	7.250	8.500	.27	9.25	1/2-13	4	.75	10.00	1.750	1.375	1/2-13	1.25	—	2.375	—	—
284JM	1/4	1/8	2.50	7.00	5.50	9.50	1.2495	—	5.250	11.000	12.500	.27	13.88	5/8-11	4	.94	9.75	1.750	1.375	1/2-13	1.00	2.13	.625	5.250	3.000
284JP	1/4	1/8	2.50	7.00	5.50	9.50	1.2495	—	8.125	11.000	12.500	.27	13.88	5/8-11	4	.94	9.75	1.750	1.375	1/2-13	1.00	2.13	2.375	8.125	5.875
284TCZ	1/4	1/8	2.63	7.00	5.50	9.50	1.2495	2.25	8.125	9.000	10.500	.27	11.25	1/2-13	4	.75	9.75	1.750	1.375	1/2-13	1.25	—	2.375	—	—
286JM	1/4	1/8	2.50	7.00	5.50	11.00	1.2495	—	5.250	11.000	12.500	.27	13.88	5/8-11	4	.94	10.50	1.750	1.375	1/2-13	1.00	2.13	.625	5.250	3.000
286JP	1/4	1/8	2.50	7.00	5.50	11.00	1.2495	—	8.125	11.000	12.500	.27	13.88	5/8-11	4	.94	10.50	1.750	1.375	1/2-13	1.00	2.13	2.375	8.125	5.875
286TCZ	1/4	1/8	2.63	7.00	5.50	11.00	1.2495	2.25	8.125	9.000	10.500	.27	11.25	1/2-13	4	.75	10.50	1.750	1.375	1/2-13	1.25	—	2.375	—	—
324JM	1/4	1/8	2.50	8.00	6.25	10.50	1.2495	—	5.250	11.000	12.500	.27	12.75	5/8-11	4	.94	10.75	1.750	1.375	1/2-13	1.00	2.13	.625	5.250	3.000
324JP	1/4	1/8	2.50	8.00	6.25	10.50	1.2495	—	8.125	11.000	12.500	.27	12.75	5/8-11	4	.94	10.75	1.750	1.375	1/2-13	1.00	2.13	2.375	8.125	5.875
324TCZ	1/4	1/8	2.63	8.00	6.25	10.50	1.2495	2.25	8.125	11.000	12.500	.27	14.00	5/8-11	4	.94	10.75	1.750	1.375	1/2-13	1.25	—	2.375	—	—
326JM	1/4	1/8	2.50	8.00	6.25	12.00	1.2495	—	5.250	11.000	12.500	.27	12.75	5/8-11	4	.94	11.50	1.750	1.375	1/2-13	1.00	2.13	.625	5.250	3.000
326JP	1/4	1/8	2.50	8.00	6.25	12.00	1.2495	—	8.125	11.000	12.500	.27	12.75	5/8-11	4	.94	11.50	1.750	1.375	1/2-13	1.00	2.13	2.375	8.125	5.875
326TCZ	1/4	1/8	2.63	8.00	6.25	12.00	1.2495	2.25	8.125	11.000	12.500	.27	14.00	5/8-11	4	.94	11.50	1.750	1.375	1/2-13	1.25	—	2.375	—	—

Notes: **(1)** Frame suffix letters JM and JP designate NEMA standard Types JM and JP motors. Frame suffix letters TCZ or TY designate Century Standard West Coast Pump motors.

(2) Dimension "D" may vary + .000" to - .031" when 8.00" or less; when over 8.00", may vary from + .000" to - .062".

(3) Note the different reference point for dimensions "BG" and "XM"; the reference point is the surface which has the mounting holes "BF". 256T.

(4) Shaft diameters "EM", "EL" (on West Coast Pump Motors) and "U" are held to tolerances of + .0000" and - .0005". Diameters "EL" on Types JM and JP are held to tolerances of + .000" and - .002".

(5) Shaft extension "AH" is made to limits of ±.031" in Types JM and JP. Dimensions to shaft shoulders, "EQ" and "ET" are held to limits of ±.015" in Frames 143T-256T and limits of ±.020" in Frames 284T-445T. Dimensions and ET are measured with shaft pulled to maximum end-play away from motor. Dimension "XM", West Coast Pump, measured without end play.

(6) Bolt circle diameter-centerline "AJ" is true within .015" for Frames 143T-.025" for Frames 284T-365T, and .031" for Frames 404T-445T.

(7) Rabbet diameter "AK" is held to limits of + .000" and - .003" when AK is 8.500" or less; it is held to limits of + .000" and - .005" when AK is more than 8.500".

For Reference Only Unless Approved for Construction

www.electricmotorwarehouse.com

A.O. SMITH ELECTRICAL PRODUCTS COMPANY