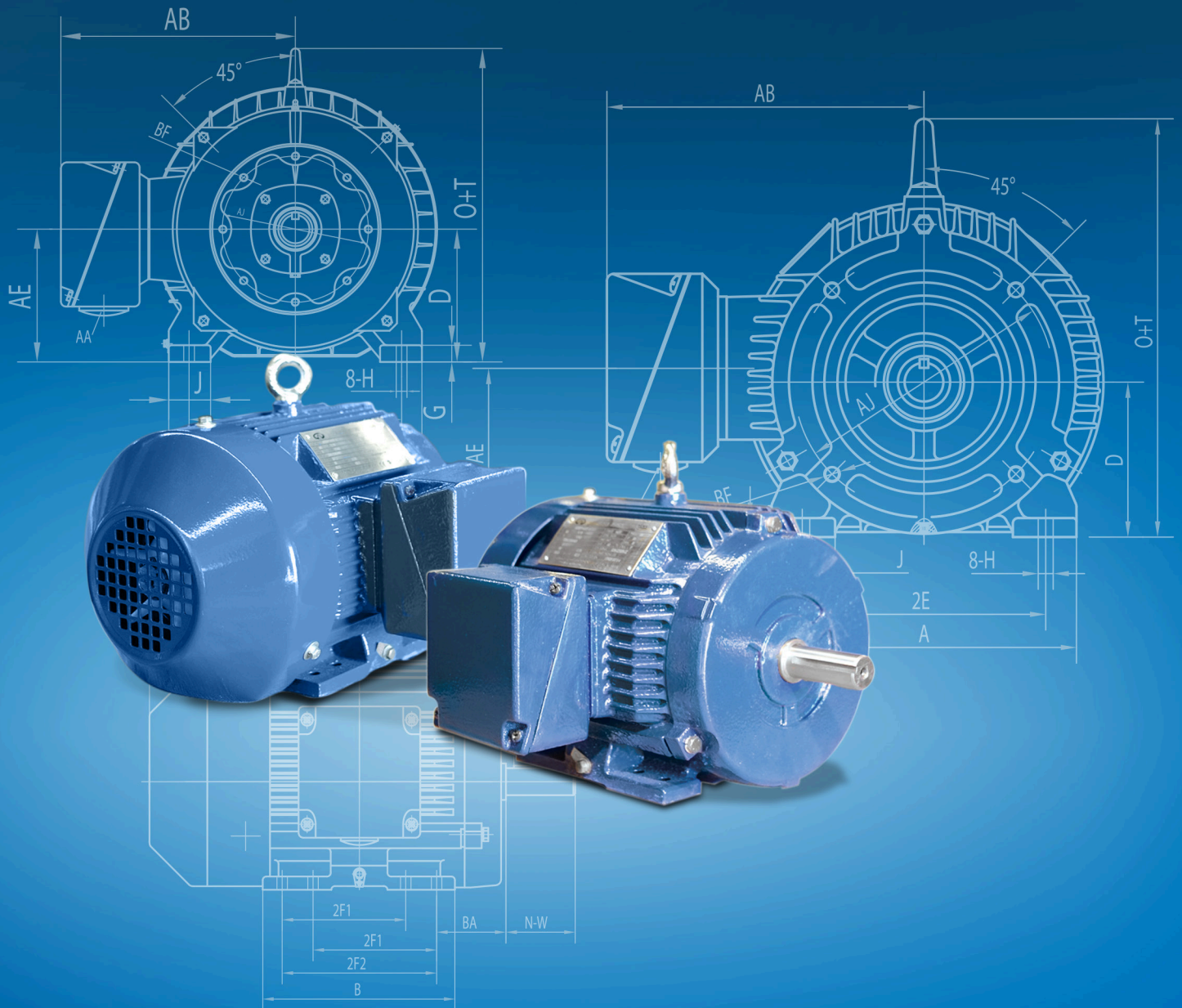




NEMA PREMIUM EFFICIENCY

# T-Frame Motors

Three-Phase, TEFC Enclosures



2022 Catalog

version 2.0

## RELIABILITY MATTERS

Aurora Motors a leading global supplier of NEMA premium vertical pump motors and T-frame motors for OEMs and electric motor distributors. Our inverter-duty motors are precision manufactured to provide superior reliability and durability, with the lowest vibration levels in the industry. Our engineers and designers are among the most respected and recognized in the world. We work at the leading edge of technology, combining our product research and development with deep application knowledge and a comprehensive understanding of market demands.



### Wide Range of Inverter-Duty Motors and Accessories

Our commitment to continual innovation and growth is reflected in our motor lines. With T-frame models ranging from 1 hp to 300 hp, and vertical models ranging from 7.5 hp to 1,000 hp, Aurora motors are engineered to reliably serve a wide range of applications.

### Put Your Trust in a Better Built Motor

Demand quality construction, lower total cost of ownership, and optimum efficiency from the motors that drive your business. Aurora's inverter-duty motors deliver the performance you expect with the reliability you need. You can rely on our motors to operate flawlessly with a minimum of disruption and maintenance.



### NEMA Premium Designation

We offer DOE Certified Premium Efficiency motors featuring optimized systems efficiency, reduced electrical power consumption and costs, and improved reliability as established by the National Electrical Manufacturers Association.



### UL Certified

Aurora vertical hollow shaft motors are listed by Underwriters Laboratories (UL). Our products have been evaluated by UL and meet their energy efficiency and safety standards.



### Canadian Standards Association

Aurora T-frame motors are certified for use in both Canada and the US according to applicable Canadian and US standards.



### ISO 9001 Certification

Aurora Motor's quality management principles meet ISO 9001 standards. These principles include a strong customer focus, the motivation of our top management, our process approach, and our dedication to continual improvement.



### EASA Member

Aurora Motors is an associate member of the Electrical Apparatus Service Association, Inc. (EASA), an international trade organization of nearly 1,800 electromechanical sales and service firms.

# NEMA PREMIUM EFFICIENCY T-FRAME MOTORS

## Latest technologies, highest quality

Available from 1hp to 300 hp, Aurora NEMA Premium Efficiency T-Frame Motors are three-phase induction, TEFC (Totally Enclosed Fan Cooled) squirrel-cage motors manufactured with quality materials and the latest technologies. Our stator core is manufactured with high-quality laminated electrical steel. The high permeability and low loss of the steel enables Aurora T-Frame Motors to operate more efficiently.

## Wide range of applications

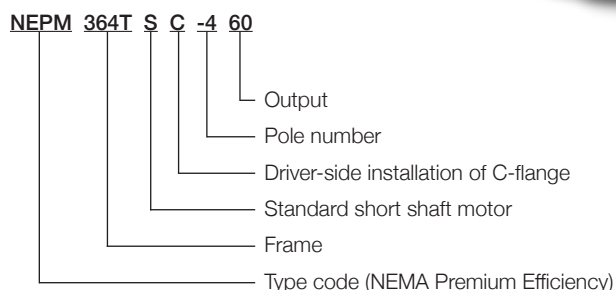
The low-noise, low-vibration design of Aurora T-Frame Motors features advanced cooling capabilities and makes them perfect for a variety of applications including compressors, ventilators, and pumps for petrochemical, medical, and mining environments.

## Features:

- Frame sizes: 143T – 449T
- Class “F” insulation (Class H available)
- Ambient temperature: 40°C max
- VPI treatment
- Dynamically balanced rotor
- Low noise, low vibration bearing
- Steel or cast iron fan cover
- Laminated steel stator core
- Continuous Duty (S1)
- Rated frequency: 60Hz (50Hz available)
- Service factor: 1.15 or 1.0



## Type designation:



<b>Horsepower</b>	1hp – 300hp
<b>Design Voltages</b>	208-230/460V (380V available) / 60Hz (50Hz available)
<b>Efficiency Level</b>	NEMA Premium Efficiency

### Manufactured with high-quality materials

Aurora T-Frame Motor stator windings use Class F insulation with polyimide enamel round wire and VPI treatment to provide strong mechanical support, superior electrical insulation, moisture and contamination resistance, and uniform heat dissipation. The conduit box is made of cast iron with Standard NPT threads in the opening.

#### Stator

- Laminated with high-permeability, low-loss electrical steel to boost efficiency
- Class F insulation windings (Class H available)
- Polyimide enamel round wire
- VPI treatment
- Embedded thermistors

#### Bearing and lubrication

- Low-noise, low-vibration bearings
- Frame 210: bilaterally shielded ball bearings without replenishing grease
- Frame 250 and larger: open bearings with attachments to drain and replenish lubricating grease without stopping motor
- No. 3 lithium base grease
- Bearing design life is as least 40,000 hours at rated load

#### Bearing size

Frame Size	Drive End Bearing	Non-Drive End Bearing
143T - 145T	6206-2Z	6206-2Z
182T - 184T	6207-2Z	6207-2Z
213T - 215T	6208-2Z	6208-2Z
254T - 256T	6309	6309
284T - 286T	6311	6311
324T - 326T	6312	6312
364T - 365T	6313	6313
404T - 405T	2P: 6313 / 4,6P: 6318	2P: 6313 / 4,6P: 6317
444T - 445T	2P: 6314 / 4,6P: NU319	2P: 6314 / 4,6P: 6318
447T - 449T	2P: 6314 / 4,6P: NU319	2P: 6314 / 4,6P: 6318

#### Rotor

- Squirrel-cage type
- Cast aluminum alloy
- Dynamically balanced to reduce vibration

#### Conduit box

- Located on central side
- F1/F2 convertible
- Cast iron housing
- Grounding bolts and connection diagram inside
- Terminal blocks are available

#### Fan and fan cover

- Fan available in plastic or cast iron
- Fan cover available in sheet metal or cast iron

#### Sunshade

- Recommended when motor to be installed in direct sunlight with an ambient temperature above 40° C



NEMA Premium Efficiency T-Frame Motors



## 2 - P O L E M O D E L S

HP	RPM	Model No.	Frame	Eff %	List Price	C	Voltage	Est. Ship Weight (lbs.)
1.5	3600	2TEP143T-1.5	143T	84	\$541.98	15.20	208-230/460	64
2	3600	2TEP145T-2	145T	85.5	\$559.97	15.20	208-230/460	66
3	3600	2TEP182T-3	182T	86.5	\$831.32	18.10	208-230/460	101
5	3600	2TEP184T-5	184T	88.5	\$913.36	18.10	208-230/460	121
7.5	3600	2TEP213T-7.5	213T	89.5	\$1,550.35	20.60	208-230/460	181
10	3600	2TEP215T-10	215T	90.2	\$1,626.64	20.60	208-230/460	190
15	3600	2TEP254T-15	254T	91	\$2,475.95	24.80	208-230/460	326
20	3600	2TEP256T-20	256T	91	\$2,576.00	24.80	208-230/460	348
25	3600	2TEP284TS-25	284TS	91.7	\$3,324.53	26.60	208-230/460	437
30	3600	2TEP286TS-30	286TS	91.7	\$3,660.66	26.60	208-230/460	454
40	3600	2TEP324TS-40	324TS	92.4	\$4,574.02	30.30	208-230/460	611
50	3600	2TEP326TS-50	326TS	93	\$4,633.04	30.30	208-230/460	626
60	3600	2TEP364TS-60	364TS	93.6	\$6,307.19	32.00	208-230/460	794
75	3600	2TEP365TS-75	365TS	93.6	\$6,490.01	32.00	208-230/460	814
100	3600	2TEP405TS-100	405TS	94.1	\$9,726.73	35.50	208-230/460	1199
125	3600	2TEP444TS-125	444TS	95	\$15,256.58	41.00	208-230/460	1676
150	3600	2TEP445TS-150	445TS	95	\$15,538.73	41.00	208-230/460	1764
200	3600	2TEP447TS-200	447TS	95.4	\$19,464.26	49.50	208-230/460	2414
250	3600	2TEP449TS-250	449TS	95.8	\$20,489.91	49.50	208-230/460	2425



NEMA Premium Efficiency T-Frame Motors



## 4 - P O L E M O D E L S

HP	RPM	Model No.	Frame	Eff %	List Price	C	Voltage	Est. Ship Weight (lbs.)
1	1800	4TEP143T-1	143T	85.5	\$548.45	15.20	208-230/460	66
1.5	1800	4TEP145T-1.5	145T	86.5	\$571.48	15.20	208-230/460	68
2	1800	4TEP145T-2	145T	86.5	\$608.92	15.20	208-230/460	66
3	1800	4TEP182T-3	182T	89.5	\$1,014.13	18.10	208-230/460	101
5	1800	4TEP184T-5	184T	89.5	\$1,055.16	18.10	208-230/460	112
7.5	1800	4TEP213T-7.5	213T	91.7	\$1,467.57	20.60	208-230/460	190
10	1800	4TEP215T-10	215T	91.7	\$1,579.85	20.60	208-230/460	196
15	1800	4TEP254T-15	254T	92.4	\$2,252.10	24.80	208-230/460	328
20	1800	4TEP256T-20	256T	93	\$2,534.96	24.80	208-230/460	351
25	1800	4TEP284T-25	284T	93.6	\$3,200.74	28.50	208-230/460	463
30	1800	4TEP286T-30	286T	93.6	\$3,536.86	28.50	208-230/460	485
40	1800	4TEP324T-40	324T	94.1	\$4,468.22	31.80	208-230/460	661
50	1800	4TEP326T-50	326T	94.5	\$4,792.11	31.80	208-230/460	672
60	1800	4TEP364T-60	364T	95	\$6,690.82	34.20	208-230/460	827
75	1800	4TEP365T-75	365T	95.4	\$7,386.10	34.20	208-230/460	842
100	1800	4TEP405T-100	405T	95.4	\$9,767.76	38.50	208-230/460	1206
125	1800	4TEP444T-125	444T	95.4	\$14,123.70	44.50	208-230/460	1720
150	1800	4TEP445T-150	445T	95.8	\$15,574.00	44.50	208-230/460	2006
200	1800	4TEP447T-200	447T	96.2	\$18,768.98	53.30	208-230/460	2436
250	1800	4TEP449T-250	449T	96.2	\$20,337.32	53.30	208-230/460	2491
300	1800	4TEP449T-300	449T	96.2	\$27,676.05	53.30	208-230/460	2723





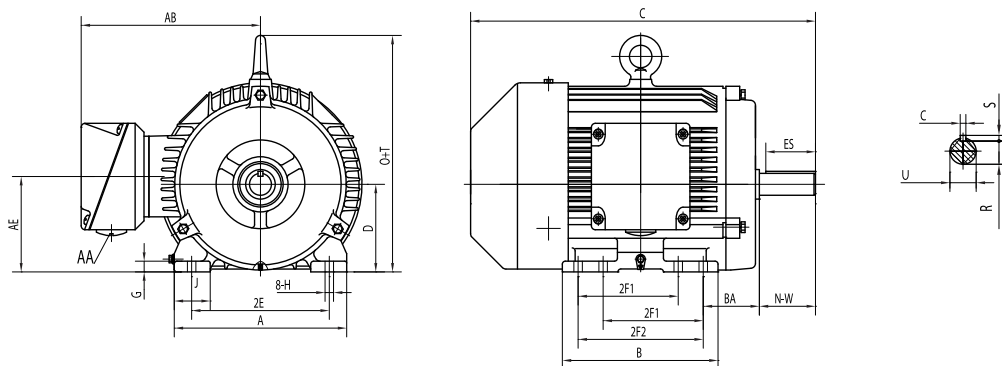
NEMA Premium Efficiency T-Frame Motors



## 6 - P O L E M O D E L S

HP	RPM	Model No.	Frame	Eff %	List Price	C	Voltage	Est. Ship Weight (lbs.)
1	1200	6TEP145T-1	145T	82.5	\$536.21	15.20	208-230/460	68
1.5	1200	6TEP182T-1.5	182T	87.5	\$807.57	18.10	208-230/460	99
2	1200	6TEP184T-2	184T	88.5	\$860.82	18.10	208-230/460	112
3	1200	6TEP213T-3	213T	89.5	\$1,291.24	20.60	208-230/460	172
5	1200	6TEP215T-5	215T	89.5	\$1,426.55	20.60	208-230/460	187
7.5	1200	6TEP254T-7.5	254T	91	\$2,086.56	24.80	208-230/460	311
10	1200	6TEP256T-10	256T	91	\$2,210.36	24.80	208-230/460	335
15	1200	6TEP284T-15	284T	91.7	\$2,799.84	28.50	208-230/460	434
20	1200	6TEP286T-20	286T	91.7	\$2,929.40	28.50	208-230/460	448
25	1200	6TEP324T-25	324T	93	\$3,978.79	31.80	208-230/460	586
30	1200	6TEP326T-30	326T	93	\$4,527.24	31.80	208-230/460	619
40	1200	6TEP364T-40	364T	94.1	\$6,112.86	34.20	208-230/460	672
50	1200	6TEP365T-50	365T	94.1	\$6,713.85	34.20	208-230/460	860
60	1200	6TEP404T-60	404T	94.5	\$7,857.54	38.50	208-230/460	1175
75	1200	6TEP405T-75	405T	94.5	\$8,282.19	38.50	208-230/460	1210
100	1200	6TEP444T-100	444T	95	\$13,068.54	44.50	208-230/460	1733
125	1200	6TEP445T-125	445T	95	\$13,781.82	44.50	208-230/460	1836
150	1200	6TEP447T-150	447T	95.8	\$17,200.64	53.30	208-230/460	2138
200	1200	6TEP449T-200	449T	95.8	\$19,069.84	53.30	208-230/460	2524
250	1200	6TEP449T-250	449T	95.8	\$27,047.40	53.30	208-230/460	2597
300	1200	6TEP449T-300	449T	95.8	\$30,122.51	53.30	208-230/460	2815

# DIMENSIONS



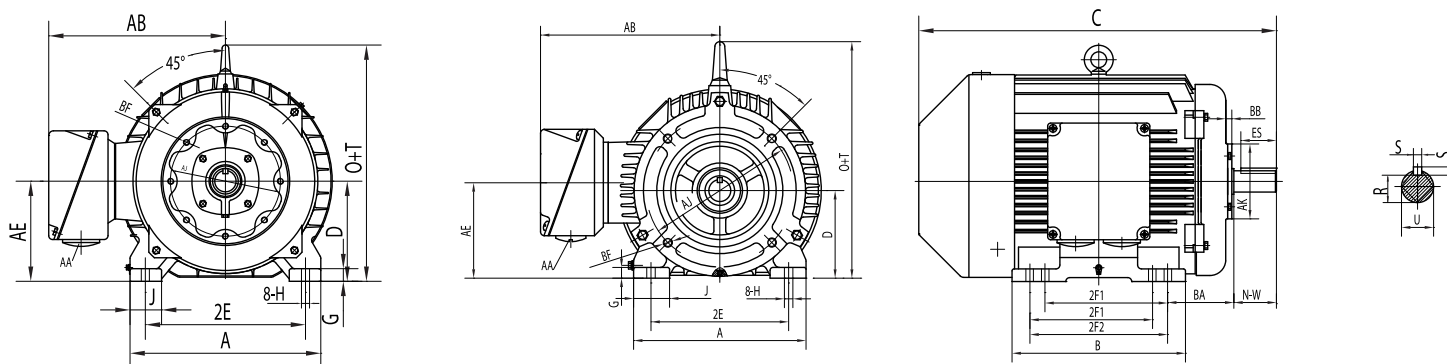
Dimensions are in inches

Frame Size	A+B	O+T	D	H φ	2E	A Max	J	G	AA	AE	C	ES Min	NW Min	BA	2F1	2F2	B	S	U φ	R
143T - 145T	7.6	7.7	3.5	0.34	5.5	7	1.35	0.4	NPT3/4"	3.8	15.2	1.42	2.25	2.25	4	5	6.25	0.189	0.875	0.771
182T - 184T	8.9	10.58	4.5	0.41	7.5	9	1.75	0.55	2NPT1"	4.97	18.1	1.78	2.75	2.75	4.5	5.5	6.89	0.25	1.125	0.986
213T - 215T	10.8	12.47	5.25	0.41	8.5	10.5	2.35	0.7	2NPT1"	5.72	20.6	2.41	3.38	3.5	5.5	7	9.37	0.312	1.375	1.201
254T - 256T	12	15.15	6.25	0.53	10	12.5	2.75	0.8	2NPT1-1/4"	6.72	24.8	2.91	4	4.25	8.25	10	11.7	0.375	1.625	1.416
284TS - 286TS	13.2	16.85	7	0.53	11	14	2.75	0.8	2NPT1-1/4"	7	26.6	1.91	3.25	4.75	9.5	11	13.4	0.375	1.625	1.416
284T - 286T	13.2	16.85	7	0.53	11	14	2.75	0.8	2NPT1-1/4"	7	28.5	3.28	4.62	4.75	9.5	11	13.4	0.5	1.875	1.591
324TS - 326TS	14.8	18.5	8	0.66	12.5	16	2.75	1.11	2NPT1-1/2"	8	30.3	2.03	3.75	5.25	10.5	12	14.6	0.5	1.875	1.591
324T - 326T	14.8	18.5	8	0.66	12.5	16	2.75	1.11	2NPT1-1/2"	8	31.8	3.91	5.25	5.25	10.5	12	14.6	0.5	2.125	1.854
364TS - 365TS	15.6	20.9	9	0.66	14	18	2.95	1.11	2NPT1-1/2"	9	32	2.03	3.75	5.88	11.25	12.25	15.4	0.5	1.875	1.591
364T - 365T	15.6	20.9	9	0.66	14	18	2.95	1.11	2NPT1-1/2"	9	34.2	4.28	5.88	5.88	11.25	12.25	15.4	0.625	2.375	2.021
405TS	18.5	23.11	10	0.81	16	20	3.15	1.18	2NPT2"	10	35.5	2.78	4.25	6.62	12.25	13.75	17.3	0.5	2.125	1.845
404T - 405T	18.5	23.11	10	0.81	16	20	3.15	1.18	2NPT2"	10	38.5	5.65	7.25	6.62	12.25	13.75	17.3	0.75	2.875	2.45
444TS - 445TS	19.5	26.05	11	0.81	18	22	3.35	1.38	2NPT2"	11	41	3.03	4.75	7.5	14.5	16.5	21.1	0.625	2.375	2.021
444T - 445T	19.5	26.05	11	0.81	18	22	3.35	1.38	2NPT2"	11	44.5	6.91	8.5	7.5	14.5	16.5	21.1	0.875	3.375	2.88
447TS - 449TS	19.5	26.05	11	0.81	18	22	3.35	1.38	2NPT2-1/2"	11	49.5	3.03	4.75	7.5	20	25	29.3	0.625	2.375	2.021
447T - 449T	19.5	26.05	11	0.81	18	22	3.35	1.38	2NPT2-1/2"NP	11	53.3	6.91	8.5	7.5	20	25	29.3	0.875	3.375	2.88
*449T	20.68	28.54	11	0.81	18	21.3	3.35	1.32	T-3"	11	56.3	6.91	8.5	7.5	20	25	29.3	0.875	3.375	2.88

NOTE: "\*" is applicable to 2P-300HP, 4P-300HP, 6P-250HP, 6P-300HP motor.



# DIMENSIONS



Dimensions are in inches

Frame Size	A+B	O+T	D	H φ	2E	A	J	G	AA	AE	C	BB Min	ES Min	BC	AK φ	NW Min	BA	2F1	2F2	B	S	U φ	R
143TC - 145TC	7.6	7.7	3.5	0.34	5.5	7	1.35	0.4	NPT3/4"	3.8	15.2	0.16	1.42	0.12	4.5	2.25	2.25	4	5	6.25	0.189	0.875	0.771
182TC - 184TC	8.9	10.58	4.5	0.41	7.5	9	1.75	0.55	2NPT1"	4.97	18.1	0.25	1.78	0.12	8.5	2.75	2.75	4.5	5.5	6.89	0.25	1.125	0.986
213TC - 215TC	10.8	12.47	5.25	0.41	8.5	10.5	2.35	0.7	2NPT1"	5.72	20.6	0.25	2.41	0.25	8.5	3.38	3.5	5.5	7	9.37	0.312	1.375	1.201
254TC - 256TC	12	15.15	6.25	0.53	10	12.5	2.75	0.8	2NPT1-1/4"	6.72	24.8	0.25	2.91	0.25	8.5	4	4.25	8.25	10	11.7	0.375	1.625	1.416
284TSC - 286TSC	13.2	16.85	7	0.53	11	14	2.75	0.8	2NPT1-1/4"	7	26.6	0.25	1.91	0.25	10.5	3.25	4.75	9.5	11	13.4	0.375	1.625	1.416
284TC - 286TC	13.2	16.85	7	0.53	11	14	2.75	0.8	2NPT1-1/4"	7	28.5	0.25	3.28	0.25	10.5	4.62	4.75	9.5	11	13.4	0.5	1.875	1.591
324TSC - 326TSC	14.8	18.5	8	0.66	12.5	16	2.75	1.11	2NPT1-1/2"	8	30.3	0.25	2.03	0.25	12.5	3.75	5.25	10.5	12	14.6	0.5	1.875	1.591
324TC - 326TC	14.8	18.5	8	0.66	12.5	16	2.75	1.11	2NPT1-1/2"	8	31.8	0.25	3.91	0.25	12.5	5.25	5.25	10.5	12	14.6	0.5	2.125	1.854
364TSC - 365TSC	15.6	20.9	9	0.66	14	18	2.95	1.11	2NPT1-1/2"	9	32	0.25	2.03	0.25	12.5	3.75	5.88	11.25	12.25	15.4	0.5	1.875	1.591
364TC - 365TC	15.6	20.9	9	0.66	14	18	2.95	1.11	2NPT1-1/2"	9	34.2	0.25	4.28	0.25	12.5	5.88	5.88	11.25	12.25	15.4	0.625	2.375	2.021
405TSC	18.5	23.11	10	0.81	16	20	3.15	1.18	2NPT2"	10	35.5	0.25	2.78	0.25	12.5	4.25	6.62	12.25	13.75	17.3	0.5	2.125	1.845
404TC - 405TC	18.5	23.11	10	0.81	16	20	3.15	1.18	2NPT2"	10	38.5	0.25	5.65	0.25	12.5	7.25	6.62	12.25	13.75	17.3	0.75	2.875	2.45
444TSC - 445TSC	19.5	26.05	11	0.81	18	22	3.35	1.38	2NPT2"	11	41	0.25	3.03	0.25	16	4.75	7.5	14.5	16.5	21.1	0.625	2.375	2.021
444TC - 445TC	19.5	26.05	11	0.81	18	22	3.35	1.38	2NPT2"	11	44.5	0.25	6.91	0.25	16	8.5	7.5	14.5	16.5	21.1	0.875	3.375	2.88
447TSC - 449TSC	19.5	26.05	11	0.81	18	22	3.35	1.38	2NPT2-1/2"	11	49.5	0.25	3.03	0.25	16	4.75	7.5	20	25	29.3	0.625	2.375	2.021
447TC - 449TC	19.5	26.05	11	0.81	18	22	3.35	1.38	2NPT2-1/2"	11	53.3	0.25	6.91	0.25	16	8.5	7.5	20	25	29.3	0.875	3.375	2.88
449TC	20.68	28.54	11	0.81	18	21.3	3.35	1.32	T-3"	11	56.3	0.25	6.91	0.25	16	8.5	7.5	20	25	29.3	0.875	3.375	2.88

NOTE: "\*\*\*" is applicable to 2P-300HP, 4P-300HP, 6P-250HP, 6P-300HP motor.



## NEMA Premium Efficiency T-Frame Motors

# WARRANTY POLICY

Aurora Motors warrants its motor/product against defects in material and workmanship provided the motor/product has properly been cared for, installed, and operated in the application for which the motor/product was designed. Aurora Motors warrants its motor/product for 18 months from the date of shipment from the manufacturer, or 12 months from the installation date, whichever expires first. This warranty shall be in lieu of any other warranty expressed or implied including but limited to, any implied warranty of merchantability, or fitness for a particular purpose. A defective motor/product must be taken to an independent repair facility authorized by Aurora Motors for inspection or returned to Aurora Motors for completion of warranty. Any and all repairs must have a written authorization by Aurora Motors prior to such repair.

To claim a warranty on a motor/product, the purchaser must provide the original invoice, date of installation, authorized inspection report, cost of repair (authorized repair facility) and photographs/video of failure which support the warranty claim. Aurora Motors will be responsible for repairs or replacing the defective motor/product provided that the motor/product has an Aurora Motors nameplate on it and in fact is an Aurora Motors product, has never being altered, is returned, and freight pre-paid. Before returning the motor/product, a return merchandise authorized number (R.M.A.) must be obtained. Aurora Motors will pay the transportation charge one way only, from the warehouse to the customer. Aurora Motors is not responsible for any expenses in connection with any repair made by anyone other than the factory or an authorized service facility. Aurora Motors is not responsible for removal, installation, or other incidental expenses incurred in shipping the motor/product to or from facilities. The utilization of the thermistors and space heaters are required for warranty inspection.

Aurora Motors assumes no responsibility for consequential or incidental damages, including but not limited to, personal injury or labor costs arising from an operating failure of the motor/product for any reason whatsoever, nor does it assume responsibility for improper storage and handling by the distributor and/or end-user. Also, for warranty purposes, customer must be ready to provide relevant data to Aurora Motors such as the end-user and installer contact information, (preferably at the time of installation). Before a warranty can be determined, the warranty department needs documentation of what application the motor/product was being utilized for, date the motor/product was purchased, the date the motor/product was installed and if all wiring was properly connected, if both the thermistor and space heater had been installed correctly, if the motor/product had been properly filled with oil, and a complete description of the cause of failure.



NEMA Premium Efficiency T-Frame Motors

## CUSTOMER SERVICE AND SUPPORT

### Our Customer Support Guarantee

Your business relies on Aurora Motors, and our Customer Support Services Team is here to help you with responsive and quick help.

#### We promise to:

- Be responsive. If a problem happens, we will be there for you.
- Provide a quick turn-around. We will help you to get back up and running as soon as possible.
- Give you reliable answers. Our engineers and designers have both a thorough knowledge of our products and your application.
- Treat you like a respected partner.



Phone: 510-264-1318

Fax: 510-264-1317

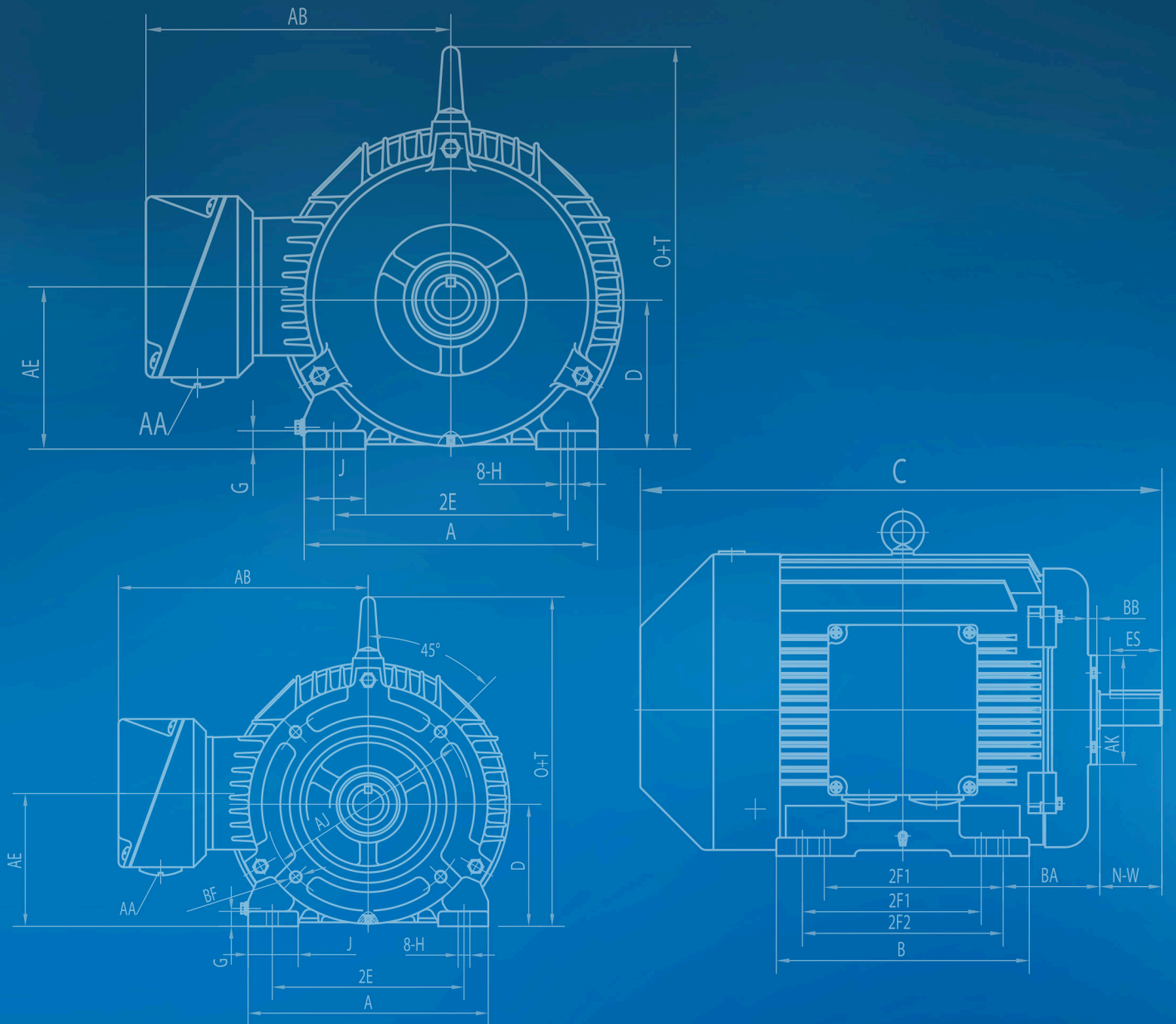
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