



**CANTONI**  
**MOTOR**



***Three-Phase  
Energy Efficient  
TEFC Motors  
in Compliance with  
NEMA-EPACT  
and CSA  
Standards***

***Including  
Crusher Duty Motors  
and JP/JM Pump Motors***



ISO9001



Compliance Certification with Energy Efficiency Standard  
Issued by US Department of Energy  
CC045A

## Certificates

Cantoni Motor SA  
ISO 9001  
KEMA  
Since: September 30, 1999  
Number: 99515

Besel SA  
ISO 9001  
DQS  
Since: July 21, 1995  
Number: 002887QM

Indukta SA  
ISO 9001  
KEMA  
Since: April 1, 1993  
Number: 99501  
ISO 14001  
KEMA  
Since: June 1, 2001  
Numer 2040373-QUA  
Numer 2040374-QUA

Celma SA  
ISO 9001  
Germanischer Lloyd  
Since: June 16, 1995  
Number: QS-243 HH  
ISO 14001  
Germanischer Lloyd  
Since: November 15, 1999  
Number: EM-1835 HH

Emit SA  
ISO 9001  
Polish Register of Ships  
Since: January 23, 1997  
Number: NC-034



### CERTIFICATE

Number: 99515

The management system of:

**Cantoni Motor S.A.  
Warsaw  
Poland**

including the implementation meets the requirements of the standard:

### ISO 9001:2000

Scope:  
Export sale of electric motors, co-ordination of the procurement of materials for the production of electric motors, accounting reporting for the companies of the Group.

The file that forms the basis of this certificate:  
99515-QUA, 2040419-QUA

This certificate is valid until: April 1, 2009

Issued for the first time: September 30, 1999

KEMA Quality B.V.

Piotr Dobroski  
Certification Manager

ACCREDITED BY  
THE DUTCH COUNCIL  
FOR ACCREDITATION

Integral publication of this certificate and adjoining reports is allowed.



### CERTIFICATE

Number: 2015916

The management system of:

**Fabryka Maszyn Elektrycznych INDUKTA S.A.  
Bielsko - Biala  
Poland**

including the implementation meets the requirements of the standard:

### ISO 9001:2000 ISO 14001:2004

Scope:  
Development, production, packing and dispatch of electrical three-phase motors with an output up to and including 30kW.

The file that forms the basis of this certificate:  
2040373-QUA, 2040374-QUA

This certificate is valid until: November 1, 2009

Issued for the first time: April 1, 1993 - ISO 9001  
July 1, 2001 - ISO 14001

KEMA Quality B.V.

Piotr Dobroski  
Certification Manager

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### CERTYFIKAT CERTIFICATE

Przyznany organizacji:

Issued for:

**Zakład Maszyn Elektrycznych "EMIT" S.A.  
ul. Narutowicza 72  
99-320 Żychlin**

Biurowy Certyfikat Polskiego Rejestru Statków S.A. zatwierdza, że System Zarządzania Jakością w/w wymienionej organizacji został oceniony i stwierdzono zgodność z wymaganiami.

Certyfikacja Systemu Zarządzania Jakością S.A. potwierdza, że ten System Zarządzania Jakością

został oceniony i stwierdzono, że jest zgodny z wymaganiami.

ISO 9001:2000

Zakres certyfikacji:

PROJEKTOWANIE I PRODUKOWANIE:  
- SILNIKÓW INDUKCYJNYCH TRÓJFAZOWYCH  
- GENERATORÓW STEROWANYCH  
- MASZYN PRĄDNIKOWYCH  
- ZESTAWÓW PRĄDNIKOWYCH  
- CZĘŚCI I PODZESTAWÓW DO MASZYN ELEKTRYCZNYCH  
- MONITORINGU SPRAWNOŚCI  
ORAZ REPARATURY MASZYN ELEKTRYCZNYCH

Scope of certification:

DESIGN AND MANUFACTURE OF:  
- THREE-PHASE INDUCTION MOTORS  
- SYNCHRONOUS GENERATORS  
- POWER GENERATING SETS  
- PARTS AND SUBASSEMBLIES FOR ELECTRIC MACHINES  
- WELDED STRUCTURES  
AND REPAIRS OF ELECTRIC MACHINES

Pierwsza wydanie Certyfikatu:

23.01.1997

Certyfikat jest ważny do:

22.01.2000

The Certificate is valid until:

22.01.2000

Nr Certyfikatu:

NC-034

Certificate No.:

NC-034

Gdańsk, 28.01.2000

28.01.2000

28.01.2000

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28.01.2000

28.01.2000

### CERTIFICATE

The Germanischer Lloyd Certification GmbH, 29450 Hamburg, hereby certifies that the company

**Maszyny Elektryczne CELMA S.A.**  
ul. 3 Maja 19, PL-43-480 Cieszyń

with the subsidiary

**Odlewnia Żeliwa Cieszyń Sp. z o.o.**  
ul. 3 Maja 19, PL-43-480 Cieszyń

has established and maintains an Environmental Management System relevant for  
**Design, production and repair of electric machines,  
iron castings.**

Germanischer Lloyd Certification GmbH has audited the company. Evidence was provided that the Environmental Management System fulfils the requirements of the following standard:

ISO 14001:2004

The validity of this certificate is subject to the company applying and maintaining its Environmental Management System in accordance with the standard indicated. This will be monitored by Germanischer Lloyd Certification GmbH.

The certificate is valid until December 11, 2005  
Hamburg, December 11, 2005

Certificate No. EM-1835 HH



*[Signature]*  
R. Wierzbicki

*[Signature]*  
K. P. Mierke

Germanischer Lloyd  
Certification

### CERTIFICATE

The Germanischer Lloyd Certification GmbH, 29450 Hamburg, hereby certifies that the company

**Maszyny Elektryczne CELMA S.A.**  
ul. 3 Maja 19, PL-43-480 Cieszyń

with the subsidiary

**Odlewnia Żeliwa Cieszyń Sp. z o.o.**  
ul. 3 Maja 19, PL-43-480 Cieszyń

has established and maintains a Quality Management System relevant for  
**Design, production and repair of electric machines,  
iron castings.**

Germanischer Lloyd Certification GmbH has audited the company. Evidence was provided that the Quality Management System fulfils the requirements of the following standard:

DIN EN ISO 9001:2000

The validity of this certificate is subject to the company applying and maintaining its Quality Management System in accordance with the standard indicated. This will be monitored by Germanischer Lloyd Certification GmbH.

The certificate is valid until December 29, 2006  
Hamburg, December 29, 2006

Certificate No. QS-243 HH



*[Signature]*  
M. Wierzbicki

*[Signature]*  
K. P. Mierke

Germanischer Lloyd  
Certification

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*Mounting Arrangements, Bearings*

### GENERAL PURPOSE AND CRUSHER DUTY MOTORS

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*Performance*  
*Overall and Mounting Dimensions*

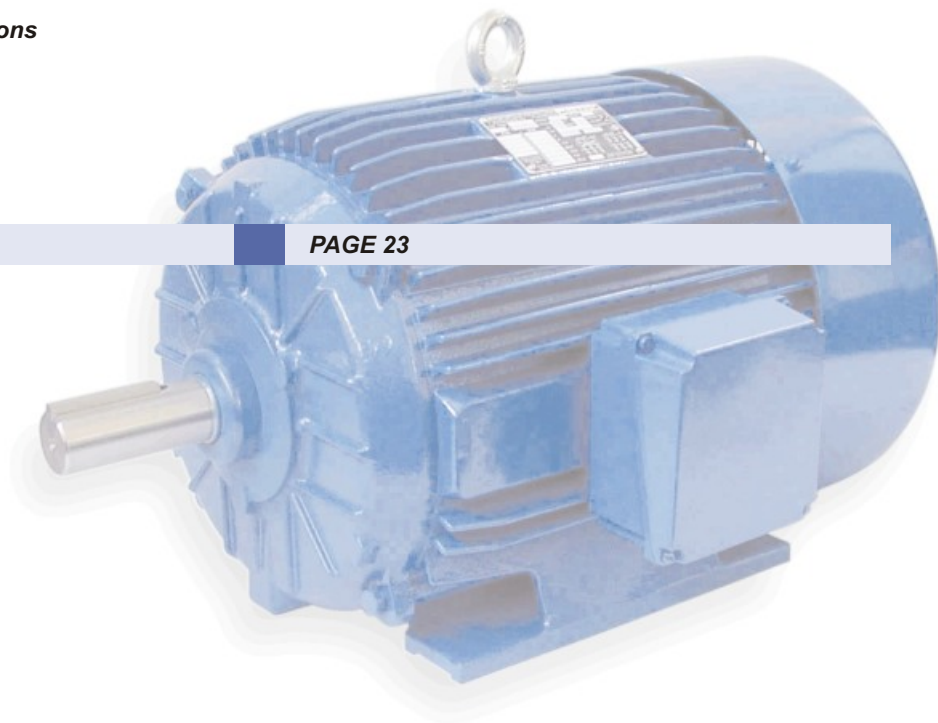
### JM/JP PUMP MOTORS

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*Features and Benefits*  
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*Standards*  
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*Overall and Mounting Dimensions*

### ORDER DATA

PAGE 23



As part of our development program, we reserve the right to alter or amend any of the specifications included in this catalog without giving prior notice.



This catalogue covers general purpose industrial motors, crusher duty motors and JM/JP closed coupled pump motors produced by Cantoni Group.

***Our brand names are known as both Cantoni Motor (CC045A) and Elektrim (CC025A).***

***Cantoni Group manufactures variety of electric motors and drives within the range 40 Watts up to 3 Megawatts which are applied by both OEM's and end users and distributed throughout the world.***

Our motors are designed for long life and reliable operation in severe industrial applications.

These motors are tough and stand up to the dirtiest, dustiest and most severe conditions.

Our general purpose motors are suitable for the most stringent applications that require high starting torque.

Most of our motors are energy efficient for money saving operation, which is testified by Compliance Certification Number issued by the U.S. Department of Energy.

Especially our crusher duty motors are designed as extra tough.

***American customers know our products for more than 20 years.***

***Our experience in motor manufacturing is much longer - exceeds 100 years.***

Our motors have severe duty mechanical and electrical features for longer life and durability in harsh environment such as strengthen cast iron frame, junction box and fan guard for protection from falling rocks or other products, high starting and breakdown torque for stall performance.

***So we deliver more than motors ...***

***... DOE Compliance Certification ...  
... ISO 9001 Certified Environment ...  
... European Quality ...  
... Enduring Value ...  
... Reliable Construction ....***



General purpose, 60Hz, TEFC, 3-phase NEMA motors from 0,8HP thru 500 HP

frames 143T thru 286T	frames 324T thru 447T	frames 447T thru 587 crusher duty motors
rigid cast iron frame	rigid cast iron frame (200 grade)	
cast iron end brackets		
bases suitable for different frames mounting (additional mounting holes)		reinforced shaft - 4140 steel
F1 assembly, convertible to F2 (except frames 586 and 587)		
thermistors as an option	thermistors as standard	thermistors and space heaters as standard
dual voltage 230/460V or 575V, usable at 208 V	dual voltage 230/460V or 575V, usable at 208 V (for output higher than 125 HP usable at 460V or 575V only)	single voltage 460V or 575 V
VFD capability 5:1 with constant torque, 10:1 with variable torque		
stainless steel nameplate with both 50 and 60 Hz performance provides permanent identification		
junction box	turning possibility of junction box : 4x 90°	
aluminum boxes, cast iron boxes are available as an option	cast iron boxes	
tapped inlets for fastening cable pipes		
		oversized junction box
enclosures	totally enclosed fan cooled (TEFC)	
degree of protection IP 55 (according to IEC 60034-5) IP 56 as an option		
fan	bi-directional fans	
steel fan guard cast iron fan guard as an option		cast iron fan guard
insulation	non hygroscopic class F insulation with class B rise (class H on request)	
inverter-rated insulation (to meet the MG1 Part 31 specification)		
VPI process applied		
		586, 587 frames - formed-coil stator windings
bearings	oversized regreasable bearings	
oversized double-shielded bearings	roller bearing on DE side (ball bearing as an option, except 449T design B)	

## APPLICATION

The motors can be used for driving pumps, fans, compressors, material handling and other general purpose applications, in damp, dusty or hostile environments. Motors are designed for direct on line (DOL), wye/delta and part winding (PWS) starting. Outstanding versatility in applications with different voltages (380V, 415V, 575V) and 50Hz frequency with excellent performance data.

## STANDARDS



The motors comply with NEMA and CSA standards:

MG1-1998  
C390-98  
IEEE Std 112-1996  
C22.2 No.100-2000  
UL 1004-2001



Motors are marked in terms of safety by CE and CSA (for applicable US and Canadian standards).

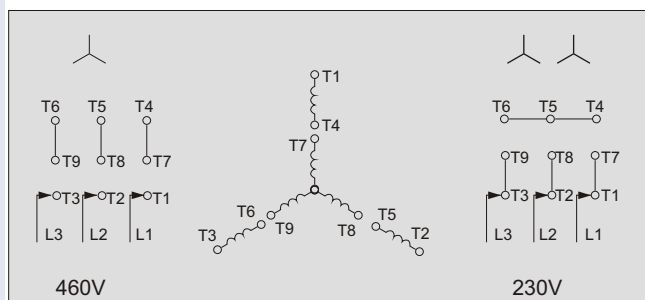
## NOMINAL DATA

Nominal data is given for ambient temperature from  $-15^{\circ}\text{C}$  ( $5^{\circ}\text{F}$ ) up to  $+40^{\circ}\text{C}$  ( $104^{\circ}\text{F}$ ), the installation height up to 1000m (3300 ft) above sea level and continuous duty (S1) of the motors. The same nominal data is valid for insulation classes B and F. The table below presents the allowable tolerances of the nominal data at nominal supply conditions.

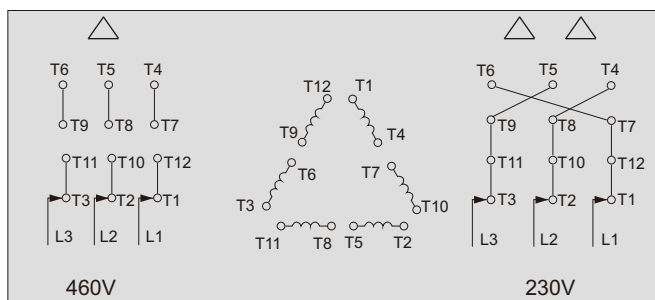
Full load current	$\pm 10\%$
RPM at full load speed	$\pm 20\%$ (synchronous speed – RPM at full load speed)

## NOMINAL VOLTAGE & BASIC CONNECTION DIAGRAMS

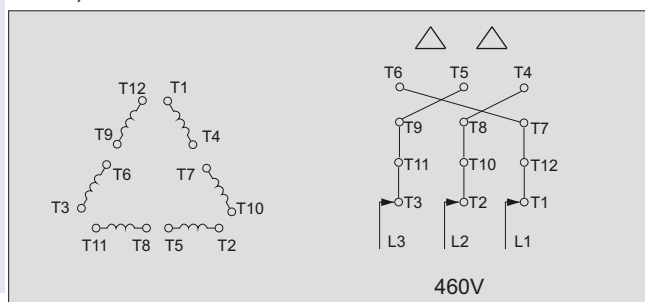
Connection diagram of **143T+184T** motors, nominal voltage 230/460V



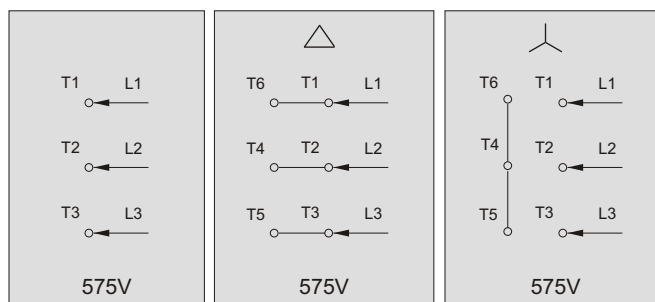
Connection diagram of **213T+445T** motors, nominal voltage 230/460V (output up to & incl. 100 HP)



Connection diagram of **444T+587** motors, nominal voltage 460V (output 125 HP and above)



Connection diagram of **143T+587** motors, nominal voltage 575V



Note: Standard rotation is CCW facing end opposite drive extension.

# MOUNTING ARRANGEMENTS & BEARINGS

RIGID BASE	C - FACE WITH BASE	D - FACE WITH BASE	BEARING SIZES		
			DE	ODE	
2p = 2      3600 rpm					
ESg 143T	Esg 143TCL		6205 2Z C3	6205 2Z C3	
ESg 145T	Esg 145TCL		6205 2Z C3	6205 2Z C3	
ESg 182T	ESg 182TCL		6306 2Z C3	6306 2Z C3	
ESg 184T	ESg 184TCL		6306 2Z C3	6306 2Z C3	
ESg 213T	ESg 213TCL		6308 2Z C3	6308 2Z C3	
ESg 215T	ESg 215TCL		6308 2Z C3	6308 2Z C3	
ESh 254T	ESh 254TCL		6309 2Z C3	6309 2Z C3	
ESh 256T	ESh 256TCL		6309 2Z C3	6309 2Z C3	
ESg 284TS	ESg 284TSCL		6311 2Z C3	6311 2Z C3	
ESg 286TS	ESg 286TSCL		6311 2Z C3	6311 2Z C3	
STe 324TS	STe 324TSCL		STe 324TSDL	6312 C3	6312 C3
STe 326TS	STe 326TSCL		STe 326TSDL	6312 C3	6312 C3
STe 364TS	STe 364TSCL		STe 364TSDL	6313 C3	6313 C3
STe 365TS	STe 365TSCL		STe 365TSDL	6313 C3	6313 C3
STe 405TS	STe 405TSCL		STe 405TSDL	6315 C3	6315 C3
STe 444TS	STe 444TSCL		STe 444TSDL	6315 C3	6315 C3
STe 445TS	STe 445TSCL	STe 445TSDL	6315 C3	6315 C3	
2p = 4      1800 rpm					
ESg 143T	ESg 143TCL		6205 2Z C3	6205 2Z C3	
ESg 145T	Esg 145TCL		6205 2Z C3	6205 2Z C3	
ESg 182T	ESg 182TCL		6306 2Z C3	6306 2Z C3	
ESg 184T	ESg 184TCL		6306 2Z C3	6306 2Z C3	
ESg 213T	ESg 213TCL		6308 2Z C3	6308 2Z C3	
ESg 215T	ESg 215TCL		6308 2Z C3	6308 2Z C3	
ESh 254T	ESh 254TCL		6309 2Z C3	6309 2Z C3	
ESh 256T	ESh 256TCL		6309 2Z C3	6309 2Z C3	
ESg 284T	ESg 284TCL		6311 2Z C3	6311 2Z C3	
ESg 286T	ESg 286TCL		6311 2Z C3	6311 2Z C3	
STe 324T	STe 324TCL		STe 324TDL	6312 C3	6312 C3
STe 326T	STe 326TCL		STe 326TDL	6312 C3	6312 C3
STe 364T	STe 364TCL		STe 364TDL	6313 C3	6313 C3
STe 365T	STe 365TCL		STe 365TDL	6313 C3	6313 C3
STe 405T	STe 405TCL		STe 405TDL	6315 C3	6315 C3
STe 444T	STe 444TCL		STe 444TDL	6318 C3	6318 C3
STe 445T	STe 445TCL	STe 445TDL	6318 C3	6318 C3	
STe 447T			NU320	6318 C3	
Sgm 447T			NU320 E M1	6317 M C3	
Sgm 449T			6319 M C3 <sup>1)</sup> NU319 E M1 <sup>2)</sup>	6314 M C3 6314 M C3	
Sg 587			NU322 E M1	6322 M C3	

1) - for motors design B

2) - for motors design C (Crusher Duty)

## MOUNTING ARRANGEMENTS & BEARINGS

RIGID BASE	C-FACE WITH BASE	D-FACE WITH BASE	BEARING SIZES	
			DE	ODE
2p = 6      1200 rpm				
ESg 143T	ESg 143TCL	STe 324TDL STe 326TDL	6205 2Z C3	6205 2Z C3
ESg 145T	Esg 145TCL		6205 2Z C3	6205 2Z C3
ESg 182T	ESg 182TCL		6306 2Z C3	6306 2Z C3
ESg 184T	ESg 184TCL		6306 2Z C3	6306 2Z C3
ESg 213T	ESg 213TCL		6308 2Z C3	6308 2Z C3
ESg 215T	ESg 215TCL		6308 2Z C3	6308 2Z C3
ESh 254T	ESh 254TCL		6309 2Z C3	6309 2Z C3
ESh 256T	ESh 256TCL		6309 2Z C3	6309 2Z C3
ESg 284T	ESg 284TCL		6311 2Z C3	6311 2Z C3
ESg 286T	ESg 286TCL		6311 2Z C3	6311 2Z C3
STe 324T	STe 324TCL		6312 C3	6312 C3
STe 326T	STe 326TCL		6312 C3	6312 C3
Sg 364T	Sg 364TCL		6313 C3	6313 C3
Sg 365T	Sg 365TCL		6313 C3	6313 C3
Sg 404T	Sg 404TCL		6315 C3	6315 C3
Sg 405T	Sg 405TCL		6315 C3	6315 C3
Sg 444T	Sg 444TCL		6318 C3	6318 C3
Sg 445T	Sg 445TCL		6318 C3	6318 C3
Sgm 447T			NU320 E M1	6317 M C3
Sgm 449T			6319 M C3 <sup>1)</sup> NU319 E M1 <sup>2)</sup>	6314 M C3 6314 M C3
Sg 586		NU322 E M1 NU322 E M1	6322 M C3	6322 M C3
Sg 587			6322 M C3	
2p = 8      900 rpm				
ESg 184T	ESg 184TCL		6306 2Z C3	6306 2Z C3
ESg 213T	ESg 213TCL		6308 2Z C3	6308 2Z C3
ESg 215T	ESg 215TCL		6308 2Z C3	6308 2Z C3
ESh 254T	ESh 254TCL		6309 2Z C3	6309 2Z C3
ESh 256T	ESh 256TCL		6309 2Z C3	6309 2Z C3
ESg 284T	ESg 284TCL		6311 2Z C3	6311 2Z C3
ESg 286T	ESg 286TCL		6311 2Z C3	6311 2Z C3
Sg 324T	Sg 324TCL		6312 C3	6312 C3
Sg 326T	Sg 326TCL		6312 C3	6312 C3
Sg 365T	Sg 365TCL		6313 C3	6313 C3
Sg 404T	Sg 404TCL		6315 C3	6315 C3
Sg 405T	Sg 405TCL		6315 C3	6315 C3
Sg 444T	Sg 444TCL		6318 C3	6318 C3
Sg 445T	Sg 445TCL		6318 C3	6318 C3
Sgm 447T			NU320 E M1	6317 M C3
Sg 586			NU322 E M1	6322 M C3
Sg 687			Nu322 E M1	6322 M C3

1) - for motors design B

2) - for motors design C (Crusher Duty)





**PERFORMANCE**

PERFORMANCE

HP	NEMA Frame	Compliance Certificate Number	RPM	Full Load Torque (lb-ft)	Locked Rotor Torque (%)	Breakdown Torque (%)	Full Load Amps			Locked Rotor Amps		Efficiency (%)			Power Factor			NEMA Design	Code Letter	Service Factor	Rotor WK <sup>2</sup> (lb-ft <sup>2</sup> )	Weight (Rigid Base) (lbs)	
							460V	575V	208V	460V	575V	2/4 Load	3/4 Load	Full Load	2/4 Load	3/4 Load	Full Load						
0.8	143T	-	1155	3.6	195	330	1.2	1.0	2.5	6.2	5.0	76.0	79.3	80.0	0.50	0.63	0.71	B	H	1.40	0.12	49	
1.0	143T	CC045A	1755	3.0	295	310	1.5	1.2	3.1	12.0	9.6	76.8	81.0	82.5	0.53	0.66	0.75	B	L	1.40	0.08	51	
	145T	CC045A	1155	4.6	180	290	1.6	1.3	3.3	8.1	6.5	76.8	79.7	80.0	0.52	0.65	0.73	B	H	1.40	0.13	52	
	182T	-	875	6.0	170	270	2.0	1.6	4.5	8.4	6.7	65.7	71.7	74.0	0.42	0.55	0.64	B	H	1.40	0.29	68	
1.5	143T	CC045A	3500	2.2	275	320	2.0	1.6	4.2	16.4	13.1	77.5	81.4	82.5	0.72	0.81	0.87	B	K	1.30	0.06	51	
	145T	CC045A	1745	4.5	265	370	2.1	1.7	4.6	15.9	12.7	80.0	83.2	84.0	0.59	0.71	0.79	B	K	1.40	0.09	54	
	182T	CC045A	1175	6.7	255	350	2.3	1.8	5.2	16.4	13.1	80.5	84.2	85.5	0.49	0.63	0.72	B	K	1.40	0.34	79	
	184T	-	875	9.0	170	240	2.6	2.1	5.9	12.0	9.6	72.4	76.1	77.0	0.48	0.61	0.70	B	H	1.40	0.35	79	
2.0	145T	CC045A	3505	3.0	280	325	2.6	2.0	5.3	22.2	17.8	81.4	83.8	84.0	0.72	0.82	0.87	B	K	1.40	0.06	57	
	145T	CC045A	1735	6.1	240	330	2.7	2.2	5.8	18.4	14.7	82.0	84.0	84.0	0.65	0.76	0.82	B	J	1.40	0.11	56	
	184T	CC045A	1165	9.0	210	270	2.9	2.3	6.4	17.6	14.1	85.8	87.1	86.5	0.55	0.67	0.74	B	H	1.30	0.40	93	
	213T	-	875	12.0	230	340	3.2	2.6	6.7	20.2	16.2	78.3	81.7	82.5	0.47	0.61	0.70	B	K	1.40	0.94	128	
3.0	182T	CC045A	3510	4.5	220	280	3.8	3.1	8.9	27.6	22.1	82.1	84.8	85.5	0.71	0.80	0.86	B	J	1.40	0.12	75	
	182T	CC045A	1745	9.0	260	380	3.9	3.1	8.8	30.8	24.6	85.1	87.3	87.5	0.64	0.76	0.82	B	K	1.30	0.24	86	
	213T	CC045A	1170	13.5	230	350	4.2	3.4	9.3	31.0	24.8	84.3	86.9	87.5	0.56	0.68	0.76	B	K	1.30	0.66	127	
	215T	-	860	18.3	220	290	4.4	3.5	9.4	25.0	20.0	82.3	84.5	84.0	0.54	0.67	0.76	B	H	1.30	0.94	137	
5.0	184T	CC045A	3500	7.5	225	280	6.2	4.9	13.4	44.0	35.2	86.3	87.8	87.5	0.75	0.85	0.87	B	H	1.40	0.20	101	
	184T	CC045A	1735	15.1	250	320	6.2	5.0	13.8	45.0	36.0	86.9	88.7	87.5	0.70	0.81	0.86	B	J	1.30	0.34	103	
	215T	CC045A	1155	22.7	190	250	6.6	5.2	14.4	40.0	32.0	87.2	88.4	87.5	0.66	0.76	0.82	B	H	1.30	0.82	148	
	254T	-	880	29.8	160	240	7.2	5.8	16.2	36.1	28.9	84.2	85.8	85.5	0.57	0.69	0.76	B	G	1.30	2.10	208	
7.5	213T	CC045A	3500	11.3	220	350	8.6	6.9	18.6	56.0	44.8	88.2	89.0	88.5	0.83	0.89	0.92	B	G	1.30	0.36	138	
	213T	CC045A	1750	22.5	200	280	9.0	7.2	19.8	61.8	49.4	89.5	90.2	89.5	0.75	0.84	0.87	B	H	1.30	0.72	146	
	254T	CC045A	1180	33.4	260	220	9.2	7.3	20.8	59.2	47.4	88.4	89.7	89.5	0.73	0.82	0.86	B	G	1.30	3.27	256	
	256T	-	875	45.0	145	220	10.8	8.6	23.7	48.2	38.6	83.9	86.1	85.5	0.57	0.70	0.76	B	F	1.20	2.10	225	
10	215T	CC045A	3495	15.0	235	260	11.4	9.1	25.1	79.9	63.9	89.9	90.3	89.5	0.84	0.90	0.92	B	H	1.30	0.43	161	
	215T	CC045A	1745	30.1	180	220	11.9	9.5	26.3	78.5	62.8	90.7	90.8	89.5	0.77	0.86	0.88	B	H	1.30	0.87	165	
	256T	CC045A	1175	44.7	255	270	12.3	9.8	27.5	75.2	60.2	89.5	90.1	89.5	0.73	0.81	0.85	B	G	1.20	3.27	269	
	284T	-	880	59.7	165	220	13.4	10.7	28.9	70.7	56.6	88.4	89.1	88.5	0.64	0.75	0.79	B	G	1.40	4.57	344	
15	254T	CC045A	3540	22.3	230	240	18.2	14.5	38.8	104.0	83.2	89.4	90.4	90.2	0.74	0.82	0.86	B	F	1.30	1.15	256	
	254T	CC045A	1760	44.8	220	265	17.2	13.7	37.5	106.0	84.8	90.5	91.0	91.0	0.82	0.87	0.90	B	G	1.30	2.52	265	
	284T	CC045A	1175	67.1	265	210	18.1	14.5	40.0	113.6	90.9	90.3	90.8	90.2	0.75	0.83	0.86	B	G	1.20	4.75	351	
	286T	-	880	89.6	180	210	20.3	16.3	43.5	111.2	89.0	88.3	89.2	88.5	0.62	0.73	0.78	B	G	1.20	4.57	359	
20	256T	CC045A	3540	29.7	235	260	23.9	19.1	50.5	132.0	105.6	90.9	91.1	90.2	0.79	0.85	0.87	B	F	1.30	1.47	304	
	256T	CC045A	1755	59.9	220	240	22.7	18.1	49.3	137.9	110.3	92.1	91.9	91.0	0.85	0.89	0.91	B	F	1.20	3.06	331	
	286T	CC045A	1175	89.4	250	210	24.1	19.3	53.8	144.7	115.8	90.3	91.0	90.2	0.76	0.84	0.86	B	G	1.20	5.17	368	
	324T	-	885	118.7	200	190	26.0	20.5	58.0	145.0	116.0	88.3	89.9	89.5	0.70	0.79	0.81	C	G	1.15	9.73	500	

## PERFORMANCE

HP	NEMA Frame	Compliance Certificate Number	RPM	Full Load Torque (lb-ft)	Locked Rotor Torque (%)	Breakdown Torque (%)	Full Load Amps			Locked Rotor Amps		Efficiency (%)			Power Factor			NEMA Design	Code Letter	Service Factor	Rotor WK <sup>2</sup> (lb-ft <sup>2</sup> )	Weight (Rigid Base) (lbs)
							460V	575V	208V	460V	575V	2/4 Load	3/4 Load	Full Load	2/4 Load	3/4 Load	Full Load					
25	284TS	CC045A	3525	37.3	260	230	29.5	23.7	65.2	178.0	142.4	91.5	91.8	91.0	0.79	0.86	0.87	B	G	1.15	1.63	335
	284T	CC045A	1760	74.6	230	230	28.0	22.3	61.7	173.0	138.4	93.2	93.2	92.4	0.84	0.89	0.91	B	F	1.15	3.19	357
	324T *	CC045A	1187	110.7	230	205	30.5	24.5	68.0	182.0	145.0	92.1	92.6	92.4	0.74	0.81	0.83	C	G	1.15	10.20	534
	326T	-	885	148.4	210	190	31.2	25.0	69.0	182.5	146.0	89.5	90.5	90.2	0.69	0.77	0.83	C	G	1.15	10.90	545
30	286TS	CC045A	3535	44.6	245	290	35.1	28.1	77.0	200.0	160.0	90.5	91.3	91.0	0.82	0.86	0.88	B	F	1.15	1.92	388
	286T	CC045A	1755	89.8	235	230	33.2	26.4	73.0	212.0	169.6	93.4	93.3	92.4	0.85	0.90	0.92	B	G	1.15	3.59	395
	326T *	CC045A	1185	133.0	210	190	37.0	29.5	82.0	200.0	160.0	92.3	92.6	91.7	0.74	0.81	0.83	C	F	1.15	11.35	562
	364T	-	885	178.1	190	200	38.1	30.5	84.0	217.5	174.0	89.2	90.1	90.2	0.66	0.76	0.80	B	G	1.15	13.24	625
40	324TS	CC045A	3560	59.0	190	240	45.6	36.5	101	290	232	92.2	93.2	93.0	0.79	0.87	0.88	B	G	1.15	3.66	538
	324T *	CC045A	1771	118.7	230	205	46.5	37.2	103	290	232	93.2	93.7	93.0	0.76	0.84	0.86	C	G	1.15	6.88	558
	364T	-	1180	178.1	210	220	46.9	37.5	104	289	231	91.1	91.9	91.7	0.81	0.87	0.88	C	G	1.15	16.80	700
	365T	-	885	237.5	220	210	52.0	41.5	115	289	231	90.3	90.8	90.2	0.66	0.76	0.80	C	G	1.15	16.60	725
50	326TS *	CC045A	3560	73.8	200	230	55.0	44.5	122	362	290	93.6	94.2	94.1	0.83	0.89	0.90	C	G	1.15	4.05	604
	326T *	CC045A	1770	148.4	230	205	57.0	45.5	125	360	288	93.9	94.3	93.6	0.80	0.87	0.88	C	G	1.15	8.20	640
	365T	-	1180	222.6	240	220	58.1	46.5	129	362	289	91.5	92.0	91.7	0.79	0.85	0.87	C	G	1.15	16.80	730
	404T	-	885	296.8	200	210	61.8	49.5	137	350	280	90.4	91.2	91.0	0.72	0.80	0.83	C	F	1.15	29.20	890
60	364TS	CC045A	3566	88.6	190	230	66.5	53.5	150	435	348	93.5	94.3	94.1	0.83	0.89	0.90	B	G	1.15	5.85	730
	364T *	CC045A	1780	177.1	230	230	67.5	54.0	152	435	348	94.5	94.9	94.1	0.81	0.87	0.88	C	G	1.15	10.40	734
	404T	-	1182	266.7	200	200	69.0	55.0	152	410	328	92.5	92.9	92.3	0.82	0.87	0.89	C	F	1.15	29.27	910
	405T	-	885	356.2	220	200	74.4	59.5	164	395	316	91.6	92.1	91.7	0.73	0.80	0.83	C	F	1.15	33.00	955
75	365TS	CC045A	3556	110.8	175	200	83.5	67.0	186	493	394	94.0	94.2	93.6	0.86	0.90	0.90	B	F	1.15	6.65	780
	365T *	CC045A	1778	221.6	240	200	84.5	68.0	186	542	433	94.5	94.9	94.5	0.80	0.87	0.88	C	G	1.15	12.80	794
	405T	-	1180	333.9	200	230	85.0	68.0	188	540	433	92.1	92.7	93.0	0.84	0.89	0.89	C	G	1.15	35.60	990
	444T	-	885	445.3	220	200	89.0	71.0	197	508	406	91.6	92.5	93.0	0.77	0.83	0.85	C	F	1.15	42.10	1265
100	405TS *	CC045A	3568	147.2	210	220	108	86.0	241	725	580	95.2	95.6	95.4	0.86	0.90	0.91	C	G	1.15	9.70	976
	405T *	CC045A	1780	295.2	220	220	109	87.0	245	720	576	95.0	95.2	94.5	0.86	0.90	0.91	C	G	1.15	18.60	1027
	444T	-	1180	445.3	205	220	115	92.0	254	670	532	93.0	93.3	93.0	0.83	0.87	0.88	C	F	1.15	42.10	1275
	445T	-	885	593.7	215	260	122	97.0	270	722	577	92.2	92.6	93.0	0.74	0.81	0.83	C	G	1.15	50.40	1460
125	444TS	CC045A	3570	184.0	160	200	135	108	-	820	656	95.3	95.7	95.4	0.88	0.91	0.91	B	F	1.15	16.60	1305
	444T	CC045A	1786	367.7	170	220	136	109	-	880	704	95.7	95.9	95.4	0.86	0.90	0.90	B	F	1.15	31.20	1387
	445T	-	1180	556.6	240	230	142	114	-	880	704	93.5	93.8	93.0	0.84	0.87	0.88	C	F	1.15	50.40	1465
	447T	Crusher Duty	887	740.4	200	220	157	-	-	900	-	93.2	94.2	94.1	0.62	0.73	0.79	C	G	1.15	54.70	1815
			887	740.4	210	230	-	128	-	-	775	93.0	94.1	94.1	0.60	0.72	0.78	C	G	1.15	54.70	1815
150	445TS	CC045A	3569	220.8	180	215	160	128	-	1040	832	95.7	96.0	95.4	0.90	0.92	0.92	B	G	1.15	20.70	1500
	445T	CC045A	1786	441.3	180	225	162	129	-	1070	856	95.8	95.9	95.4	0.87	0.90	0.91	B	G	1.15	35.80	1466
	447T	Crusher Duty	1185	665.1	220	230	172	-	-	1060	-	94.3	95.1	95.0	0.77	0.84	0.86	C	G	1.15	54.60	1725
			1185	665.1	210	210	-	138	-	-	850	94.2	95.0	95.0	0.73	0.83	0.86	C	G	1.15	54.60	1725
	447T	Crusher Duty	887	888.5	220	210	188	-	-	1080	-	93.7	94.5	94.5	0.63	0.74	0.79	C	G	1.15	71.20	1975
			887	888.5	210	210	-	151	-	-	870	93.7	94.5	94.5	0.63	0.74	0.79	C	G	1.15	71.20	1975

Note: \* - meet design C requirements

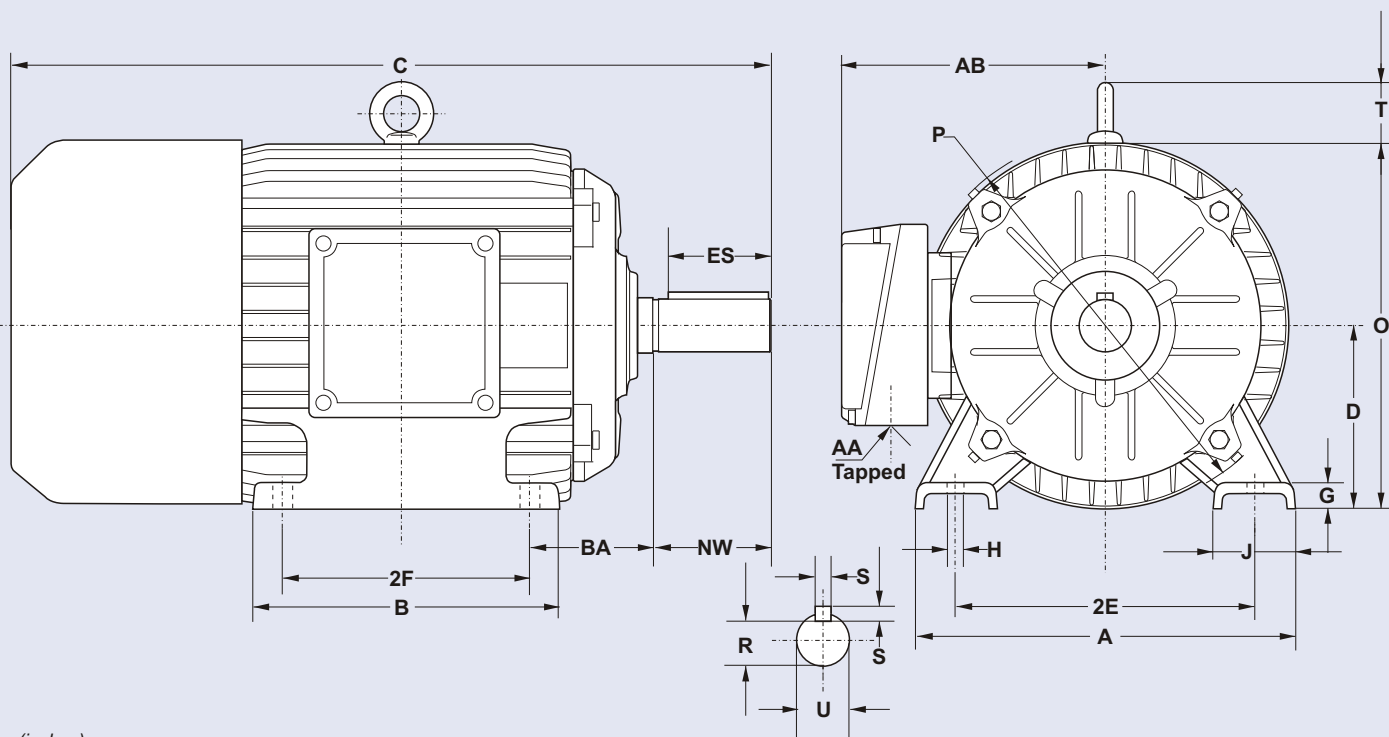
PERFORMANCE

**PERFORMANCE**

PERFORMANCE

HP	NEMA Frame	Compliance Certificate Number	RPM	Full Load Torque (lb-ft)	Locked Rotor Torque (%)	Breakdown Torque (%)	Full Load Amps			Locked Rotor Amps		Efficiency (%)			Power Factor			NEMA Design	Code Letter	Service Factor	Rotor WK <sup>2</sup> (lb-ft <sup>2</sup> )	Weight (Rigid Base) (lbs)	
							460V	575V	208V	460V	575V	2/4 Load	3/4 Load	Full Load	2/4 Load	3/4 Load	Full Load						
200	447T	CC045A	1785	588.7	210	225	227	182	502	1440	1152	95.6	95.9	95.4	0.76	0.83	0.86	B	G	1.15	38.4	1755	
	447T	Crusher Duty	1784	589.3	210	220	227	-	-	1450	-	94.4	95.0	95.0	0.81	0.86	0.87	C	G	1.15	45.1	1725	
			1782	589.7	210	220	-	182	-	-	1160	93.9	94.7	95.0	0.79	0.85	0.87						
	447T	Crusher Duty	1185	886.8	230	240	229	-	-	1430	-	94.3	95.1	95.0	0.77	0.84	0.86	C	G	1.15	68.8	1945	
			1185	886.8	220	210	-	183	-	-	1160	94.3	95.1	95.0	0.74	0.83	0.86						
	586	Crusher Duty	889	1182.0	210	200	263	-	-	1310	-	93.6	94.5	94.5	0.61	0.71	0.75	C	F	1.15	170.8	3270	
			891	1179.3	210	200	-	211	-	-	1050	93.4	94.3	94.5	0.63	0.70	0.75						
250	447T	Crusher Duty	1784	736.3	220	220	283	-	-	1825	-	94.2	95.0	95.0	0.81	0.86	0.87	C	G	1.15	54.6	1935	
	447T	Crusher Duty	1782	737.1	220	220	-	227	-	-	1460	93.9	94.9	95.0	0.79	0.86	0.87	C	G	1.15	54.6	1935	
			1189	1104.0	150	220	304	-	-	1825	-	94.4	95.1	95.0	0.62	0.77	0.81	B	G	1.15	80.5	2645	
	449T	Crusher Duty	1189	1104.7	150	210	-	240	-	-	1460	94.0	94.9	95.0	0.79	0.81	0.82						
			1188	1105.7	220	210	305	-	-	2100	-	94.0	94.9	95.0	0.66	0.77	0.81	C	H	1.15	83.0	2745	
	586	Crusher Duty	889	1477.5	210	190	322	-	-	1620	-	93.1	94.9	95.0	0.61	0.72	0.76	C	F	1.15	213.6	3621	
			890	1475.8	210	190	-	259	-	-	1300	93.6	94.8	95.0	0.66	0.74	0.76						
300	449T	-	1785	883.4	160	210	338	-	-	2200	-	94.9	95.5	95.4	0.81	0.86	0.87	B	G	1.15	69.9	2667	
	449T	Crusher Duty	1786	882.5	160	220	-	270	-	-	1760	93.8	95.1	95.4	0.81	0.86	0.87	B	G	1.15	69.9	2667	
			1789	881.7	240	230	345	-	-	2670	-	94.1	95.1	95.4	0.75	0.83	0.85	C	H	1.15	66.9	2667	
	449T	Crusher Duty	1189	1325.8	150	220	365	-	-	2200	-	94.4	95.1	95.0	0.63	0.76	0.81	B	G	1.15	96.5	2845	
			1188	1326.8	150	220	-	288	-	-	1760	94.0	94.9	95.0	0.79	0.81	0.82						
	586	Crusher Duty	1188	1328.4	230	210	368	-	-	2550	-	94.1	94.9	95.0	0.65	0.76	0.80	C	H	1.15	97.3	2889	
			889	1773.0	220	190	382	-	-	2000	-	94.1	95.1	95.4	0.62	0.73	0.77	C	F	1.15	256.3	3991	
			890	1771.0	220	190	-	310	-	-	1700	94.1	95.1	95.4	0.65	0.73	0.76						
350	449T	-	1786	1029.4	170	220	395	-	-	2550	-	94.7	95.4	95.4	0.77	0.85	0.87	B	G	1.15	78.3	2833	
	449T	Crusher Duty	1785	1030.2	170	230	-	315	-	-	2040	94.2	95.2	95.4	0.83	0.86	0.87	C	H	1.15	78.3	2900	
			1787	1029.0	240	230	400	-	-	3120	-	95.1	95.4	95.4	0.76	0.83	0.86	C	H	1.15	78.3	2900	
	586	Crusher Duty	1187	1549.2	245	220	404	-	-	2550	-	94.5	95.3	95.4	0.79	0.84	0.85	C	G	1.15	268.1	4020	
			1187	1549.2	245	220	-	323	-	-	2040	94.4	95.3	95.4	0.78	0.84	0.85						
	587	Crusher Duty	891	2065.7	200	190	434	-	-	2499	-	94.6	95.5	95.6	0.69	0.77	0.79	C	F	1.15	295.0	4210	
			891	2065.7	210	190	-	357	-	2040	-	94.3	95.3	95.4	0.67	0.75	0.77	C	G				
400	587	Crusher Duty	1786	1176.7	200	210	446	-	-	2900	-	93.6	95.0	95.4	0.80	0.86	0.88	C	G	1.15	218.3	4149	
	587	Crusher Duty	1789	1174.7	200	210	-	353	-	-	2300	93.6	95.0	95.4	0.80	0.86	0.89						
			1191	1764.6	200	260	446	-	-	2900	-	94.2	95.2	95.4	0.80	0.86	0.88	C	G	1.15	284.8	4199	
			1191	1764.6	200	260	-	357	-	-	2320	94.0	95.2	95.4	0.81	0.86	0.88						
450	587	Crusher Duty	1787	1323.6	220	210	492	-	-	3220	-	95.0	95.9	96.2	0.86	0.89	0.89	C	G	1.15	232.5	4289	
	587	Crusher Duty	1789	1321.6	210	210	-	395	-	-	2580	94.0	95.1	95.8	0.80	0.86	0.89						
500	587	Crusher Duty	1786	1470.9	200	210	555	-	-	3625	-	94.0	95.5	95.8	0.81	0.86	0.88	C	G	1.00	220.0	4289	
	587	Crusher Duty	1789	1468.4	220	230	-	439	-	-	2950	94.4	95.5	95.8	0.83	0.88	0.89						

# RIGID BASE



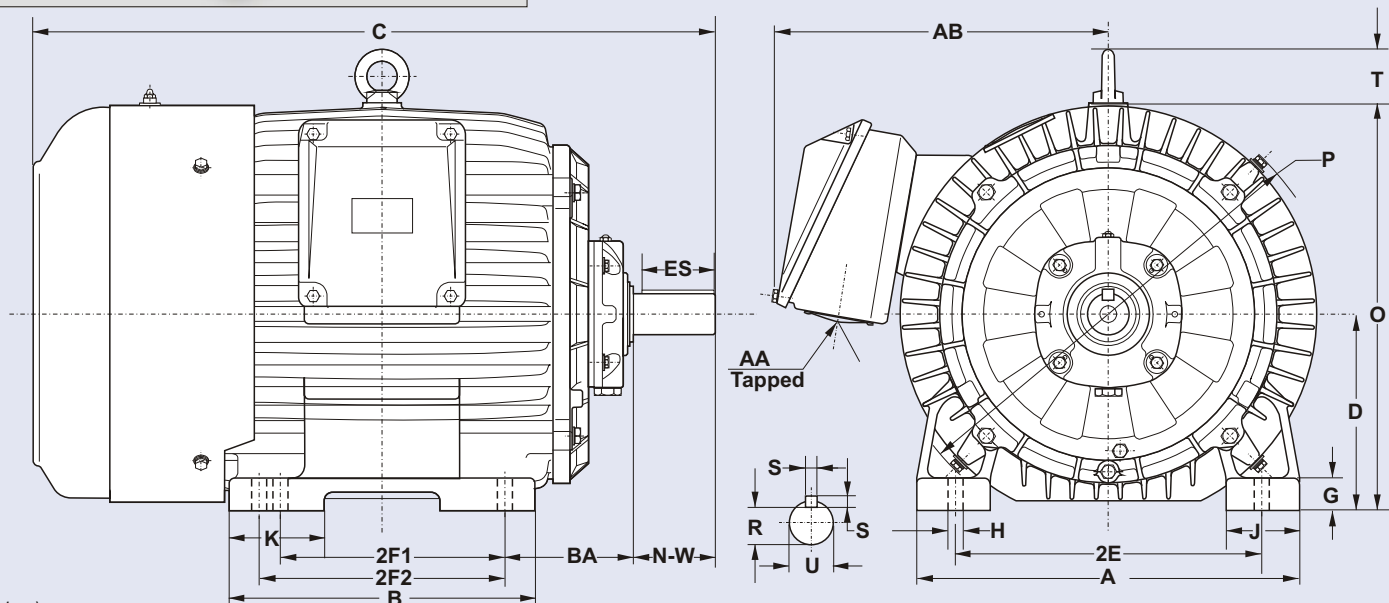
(inches)

Motor Frame	Number of Poles	Mounting Dimensions											Overall Dimensions								
		D	2E	2F	G	H	Shaft End						A	AA	AB	B	C	J	O	P	T
							BA	ES	N-W	R	S	U									
ESg 143T	2,4	3.50	5.50	4.00	0.39	0.34	2.25	1.52	2.25	0.771	0.188	0.875	6.62	3/4	6.50	5.83	13.03	1.66	7.48	8.27	-
ESg 145T	2,4,6	3.50	5.50	5.00	0.39	0.34	2.25	1.52	2.25	0.771	0.188	0.875	6.62	3/4	6.50	7.00	14.20	1.66	7.48	8.27	-
ESg 182T	2,4,6,8	4.50	7.50	4.50	0.60	0.41	2.75	1.94	2.75	0.986	0.250	1.125	9.00	1	7.90	6.74	15.10	2.13	9.09	9.53	1.77
ESg 184T	2,4,6,8	4.50	7.50	5.50	0.60	0.41	2.75	1.94	2.75	0.986	0.250	1.125	9.00	1	7.90	8.31	16.71	2.13	9.09	9.53	1.77
ESg 213T	2,4,6,8	5.25	8.50	5.50	0.72	0.41	3.50	2.55	3.38	1.201	0.312	1.375	10.24	1	8.45	8.10	18.77	2.20	10.55	10.94	1.77
ESg 215T	2,4,6,8	5.25	8.50	7.00	0.72	0.41	3.50	2.55	3.38	1.201	0.312	1.375	10.24	1	8.45	9.60	20.67	2.20	10.55	10.94	1.77
ESh 254T	2,4,6,8	6.25	10.00	8.25	0.58	0.55	4.25	3.11	4.00	1.416	0.375	1.625	12.28	1 1/4	10.08	9.92	24.10	2.36	13.18	14.17	2.08
ESh 256T	2,4,6,8	6.25	10.00	10.00	0.58	0.55	4.25	3.11	4.00	1.416	0.375	1.625	12.28	1 1/4	10.08	11.65	25.83	2.36	13.18	14.17	2.08
ESg 284T	4,6,8	7.00	11.00	9.50	0.89	0.55	4.75	3.53	4.62	1.591	0.500	1.875	13.78	1 1/2	10.34	11.61	27.10	2.75	14.01	14.17	2.08
ESg 284TS	2	7.00	11.00	9.50	0.89	0.55	4.75	2.10	3.25	1.416	0.375	1.625	13.78	1 1/2	10.34	11.61	25.70	2.75	14.01	14.17	2.08
ESg 286T	4,6,8	7.00	11.00	11.00	0.89	0.55	4.75	3.53	4.62	1.591	0.500	1.875	13.78	1 1/2	10.34	13.11	28.60	2.75	14.01	14.17	2.08
ESg 286TS	2	7.00	11.00	11.00	0.89	0.55	4.75	2.10	3.25	1.416	0.375	1.625	13.78	1 1/2	10.34	13.11	27.20	2.75	14.01	14.17	2.08

OVERALL AND MOUNTING DIMENSIONS



# RIGID BASE



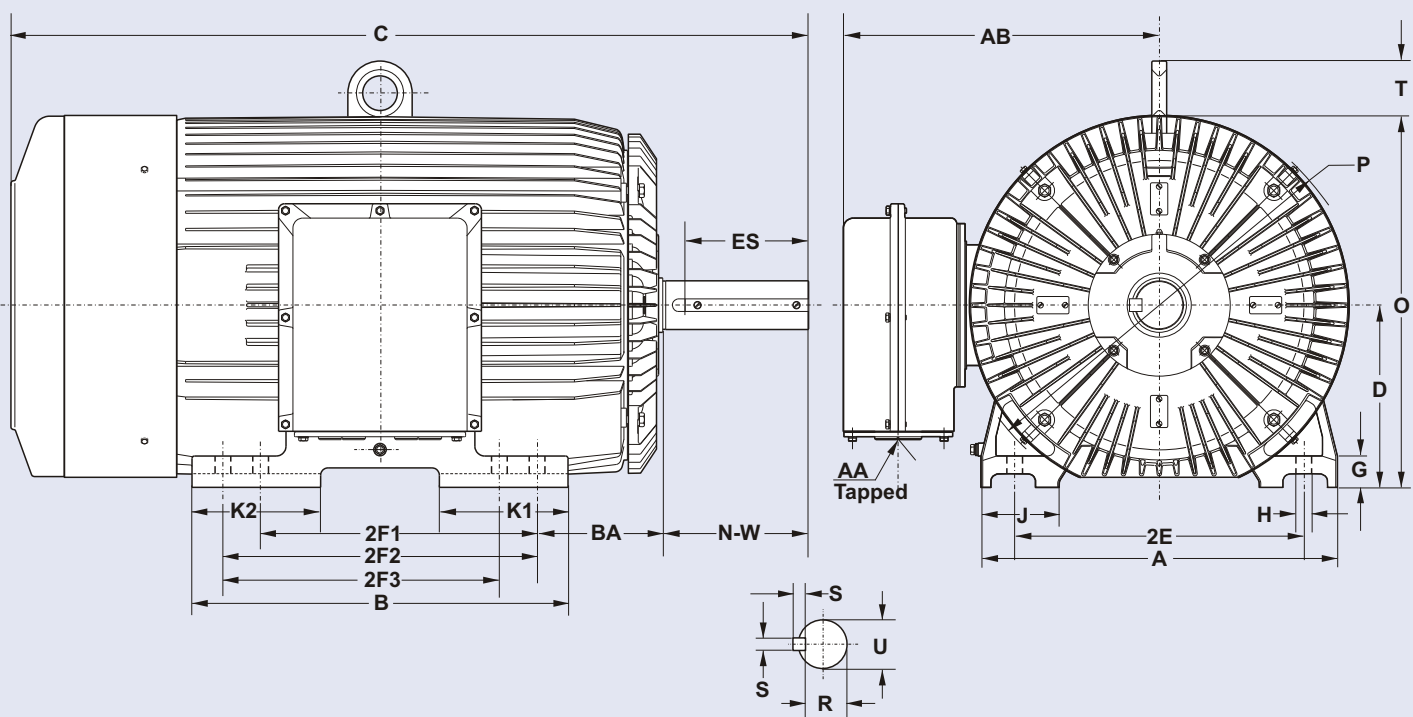
(Inches) Motor Frame	Number of Poles	Mounting Dimensions												Overall Dimensions									
		D	2E	2F1	2F2	G	H	Shaft End						A	AA	AB	B	C	J	K	O	P	T
								BA	ES	N-W	R	S	U										
STe 324TS	2	8.00	12.50	10.50	-	1.38	0.66	5.25	2.75	3.75	1.591	0.500	1.875	15.80	2	14.00	13.40	29.20	3.15	3.94	16.70	17.70	2.50
STe 324T	4,6	8.00	12.50	10.50	-	1.38	0.66	5.25	4.33	5.25	1.845	0.500	2.125	15.80	2	14.00	13.40	30.70	3.15	3.94	16.70	17.70	2.50
Sg 324T	8	8.00	12.50	10.50	-	1.38	0.66	5.25	4.33	5.25	1.845	0.500	2.125	15.80	2	14.00	13.40	31.30	3.15	3.94	16.70	17.70	2.50
STe 326TS	2	8.00	12.50	10.50	12.00	1.38	0.66	5.25	2.75	3.75	1.591	0.500	1.875	15.80	2	14.00	14.90	30.70	3.15	3.94	16.70	17.70	2.50
STe 326T	4,6	8.00	12.50	10.50	12.00	1.38	0.66	5.25	4.33	5.25	1.845	0.500	2.125	15.80	2	14.00	14.90	32.30	3.15	3.94	16.70	17.70	2.50
Sg 326T	8	8.00	12.50	12.00	-	1.38	0.66	5.25	4.33	5.25	1.845	0.500	2.125	15.80	2	14.00	14.90	32.90	3.15	3.94	16.70	17.70	2.50
STe 364TS	2	9.00	14.00	11.25	-	1.49	0.66	5.88	2.75	3.75	1.591	0.500	1.875	17.50	3	15.40	14.00	31.50	3.35	4.33	18.80	19.90	2.50
STe 364T	4	9.00	14.00	11.25	-	1.49	0.66	5.88	4.92	5.88	2.021	0.625	2.375	17.50	3	15.40	14.00	33.70	3.35	4.33	18.80	19.90	2.50
Sg 364T	6,8	9.00	14.00	11.25	-	1.49	0.66	5.88	4.92	5.88	2.021	0.625	2.375	17.50	3	15.40	14.00	34.30	3.35	4.33	18.80	19.90	2.50
STe 365TS	2	9.00	14.00	11.25	12.25	1.49	0.66	5.88	2.75	3.75	1.591	0.500	1.875	17.50	3	15.40	15.00	32.50	3.35	4.33	18.80	19.90	2.50
STe 365T	4	9.00	14.00	11.25	12.25	1.49	0.66	5.88	4.92	5.88	2.021	0.625	2.375	17.50	3	15.40	15.00	34.70	3.35	4.33	18.80	19.90	2.50
Sg 365T	6,8	9.00	14.00	12.25	-	1.49	0.66	5.88	4.92	5.88	2.021	0.625	2.375	17.50	3	15.40	15.00	35.30	3.35	4.33	18.80	19.90	2.50
Sg 404T	6	10.00	16.00	12.25	-	1.57	0.81	6.62	6.30	7.25	2.450	0.750	2.875	19.50	3	16.30	16.50	40.40	3.54	4.72	20.50	21.10	2.95
STe 405TS	2	10.00	16.00	13.75	-	1.57	0.81	6.62	3.50	4.25	1.845	0.500	2.125	19.50	3	16.30	16.50	36.30	3.54	4.72	20.50	21.10	2.95
STe 405T	4	10.00	16.00	13.75	-	1.57	0.81	6.62	6.30	7.25	2.450	0.750	2.875	19.50	3	16.30	16.50	39.40	3.54	4.72	20.50	21.10	2.95
Sg 405T	6,8	10.00	16.00	13.75	-	1.57	0.81	6.62	6.30	7.25	2.450	0.750	2.875	19.50	3	16.30	16.50	40.40	3.54	4.72	20.50	21.10	2.95
STe 444TS	2	11.00	18.00	14.50	16.50	1.57	0.81	7.50	4.30	4.75	2.021	0.625	2.375	22.10	2 x 3	18.70	20.50	39.20	3.94	6.50	23.10	24.30	2.95
STe 444T	4	11.00	18.00	14.50	16.50	1.57	0.81	7.50	7.90	8.50	2.880	0.875	3.375	22.10	2 x 3	18.70	20.50	43.0	3.94	6.50	23.10	24.30	2.95
Sg 444T	6,8	11.00	18.00	14.50	-	1.57	0.81	7.50	7.90	8.50	2.880	0.875	3.375	22.10	2 x 3	18.70	18.50	44.10	3.94	5.51	23.10	24.20	2.95
STe 445TS	2	11.00	18.00	14.50	16.50	1.57	0.81	7.50	4.30	4.75	2.021	0.625	2.375	22.10	2 x 3	18.70	20.50	39.20	3.94	6.50	23.10	24.30	2.95
STe 445T	4	11.00	18.00	14.50	16.50	1.57	0.81	7.50	7.90	8.50	2.880	0.875	3.375	22.10	2 x 3	18.70	20.50	43.00	3.94	6.50	23.10	24.30	2.95
Sg 445T	6,8	11.00	18.00	16.50	-	1.57	0.81	7.50	7.90	8.50	2.880	0.875	3.375	22.10	2 x 3	18.70	20.50	46.10	3.94	5.51	23.10	24.20	2.95
STe 447T	4	11.00	18.00	16.50	20.00	1.57	0.81	7.50	7.90	8.50	2.880	0.875	3.375	22.10	2 x 3	19.10	24.00	49.60	3.94	7.87	23.40	24.20	2.95

Note: For STe range:

326 base suitable for 324 frame mounting,  
445 base suitable for 444 frame mounting,

365 base suitable for 364 frame mounting,  
444 base suitable for 445 frame mounting.

# RIGID BASE - CRUSHER DUTY MOTORS



(inches)

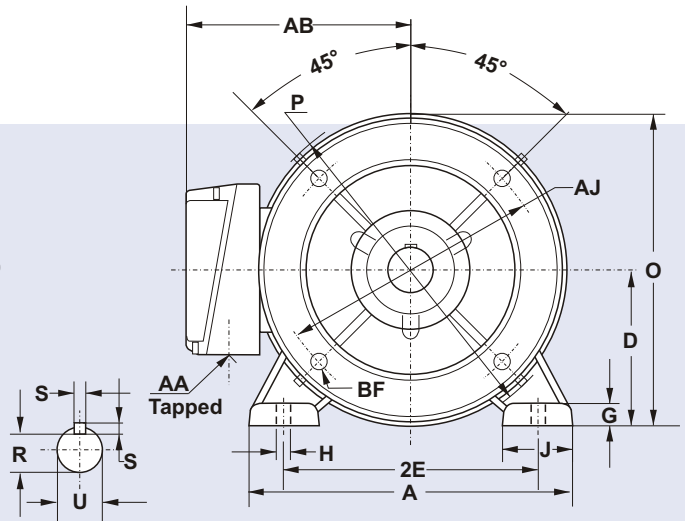
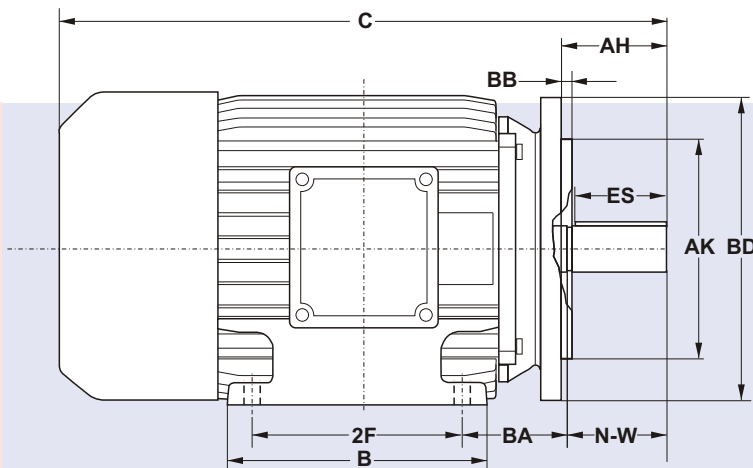
Motor Frame	Number of Poles	Mounting Dimensions													Overall Dimensions										
		D	2E	2F1	2F2	2F3	G	H	Shaft End						A	AA	AB	B	C	J	K1	K2	O	P	T
									BA	ES	N-W	R	S	U											
Sgm 447T	4. 6. 8	11.00	18.00	-	20.00	-	1.55	0.81	7.50	6.875	8.500	2.880	0.875	3.375	22.05	2 × 3	24.52	23.62	49.59	3.94	5.59	5.59	25.87	23.62	3.15
Sgm 449T	4. 6	11.00	18.00	20.00	20.00	25.00	1.55	0.81	7.50	7.870	8.500	2.880	0.875	3.375	21.97	2 × 3	23.85	29.72	55.10	5.20	9.72	9.72	27.56	24.65	4.66
Sgm 449TZ	4. 6	11.00	18.00	20.00	25.00	20.00	1.55	0.81	7.50	8.500	10.125	2.880	0.875	3.375	21.97	2 × 3	23.85	29.72	56.80	5.20	9.72	9.72	22.90	25.00	4.66
Sg 586	6. 8	14.50	23.00	20.00	22.00	-	2.48	1.25	10.00	9.842	11.625	3.309	1.00	3.875	28.34	2 × 3	25.12	28.74	60.63	6.22	8.07	10.40	33.94	30.60	4.827
Sg 587	4. 6. 8	14.50	23.00	22.00	25.00	-	2.48	1.25	10.00	9.842	11.625	3.309	1.00	3.875	28.34	2 × 3	25.12	29.92	63.50	6.22	7.28	10.24	33.94	30.60	4.827

Note:

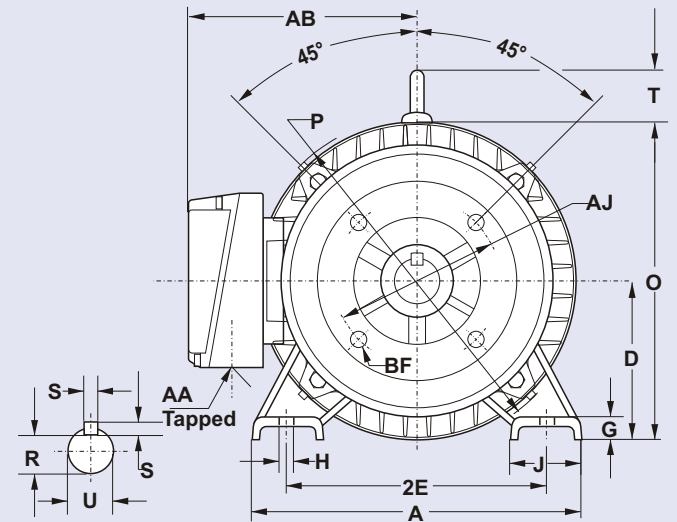
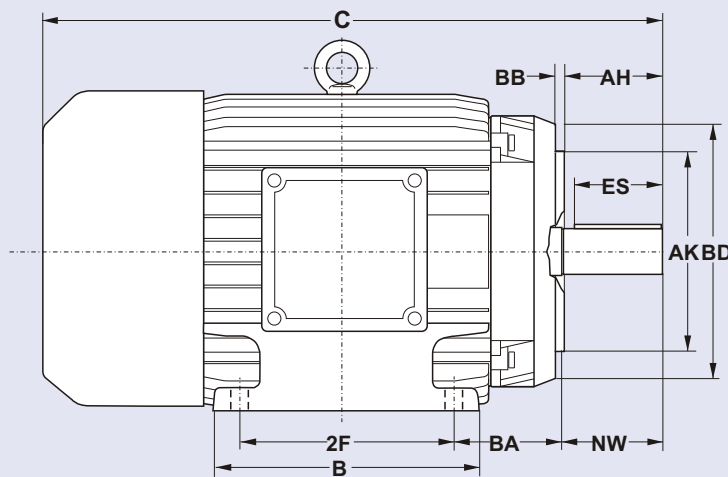
449 base suitable for 447 frame mounting,  
586 base suitable for 585 frame mounting,  
587 base suitable for 586 frame mounting.

# C-FACE WITH RIGID BASE

143 and 145



182 ÷ 286

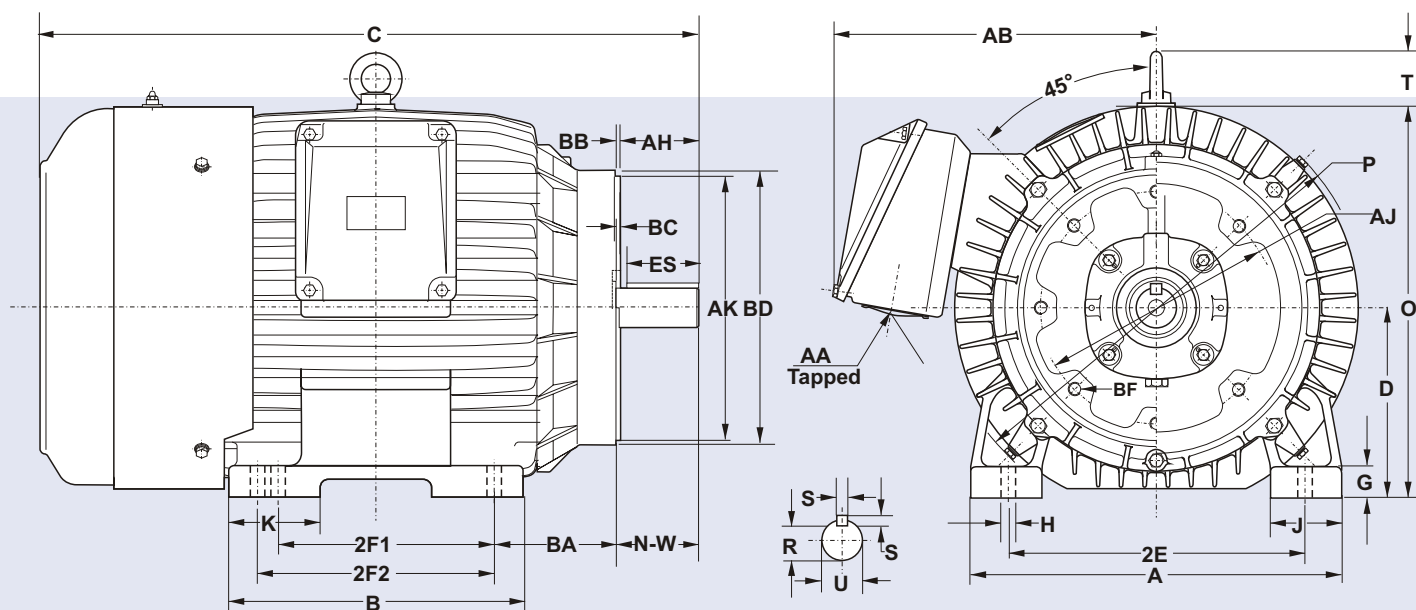


(inches)

Motor Frame	Number of Poles	Mounting Dimensions																Overall Dimensions											
		D	2E	2F	G	H	Shaft End						C-face						A	AA	AB	B	BD	C	J	O	P	T	
							BA	ES	N-W	R	S	U	AH	AJ	AK	BB	BF												
																	size	No.											
ESg 143TC	2,4	3.50	5.50	4.00	0.39	0.34	2.75	1.52	2.25	0.771	0.188	0.875	2.12	5.875	4.50	0.16	3/8-16	4	6.62	3/4	6.50	5.83	6.50	13.03	1.66	7.48	8.27	-	
ESg 145TC	2,4,6	3.50	5.50	5.00	0.39	0.34	2.75	1.52	2.25	0.771	0.188	0.875	2.12	5.875	4.50	0.16	3/8-16	4	6.62	3/4	6.50	7.00	6.50	14.20	1.66	7.48	8.27	-	
ESg 182TC	2,4,6,8	4.50	7.50	4.50	0.60	0.41	3.50	1.94	2.75	0.986	0.250	1.125	2.62	7.25	8.50	0.25	1/2-13	4	9.00	1	7.90	6.74	8.90	15.10	2.13	9.09	9.53	1.77	
ESg 184TC	2,4,6,8	4.50	7.50	5.50	0.60	0.41	3.50	1.94	2.75	0.986	0.250	1.125	2.62	7.25	8.50	0.25	1/2-13	4	9.00	1	7.90	8.31	8.90	16.71	2.13	9.09	9.53	1.77	
ESg 213TC	2,4,6,8	5.25	8.50	5.50	0.72	0.41	4.25	2.55	3.38	1.201	0.312	1.375	3.12	7.25	8.50	0.25	1/2-13	4	10.24	1	8.45	8.10	8.90	18.77	2.20	10.55	10.94	1.77	
ESg 215TC	2,4,6,8	5.25	8.50	7.00	0.72	0.41	4.25	2.55	3.38	1.201	0.312	1.375	3.12	7.25	8.50	0.25	1/2-13	4	10.24	1	8.45	9.60	8.90	20.67	2.20	10.55	10.94	1.77	
ESh 254TC	2,4,6,8	6.25	10.00	8.25	0.58	0.55	4.75	3.11	4.00	1.416	0.375	1.625	3.75	7.25	8.50	0.25	1/2-13	4	12.28	1 1/4	10.08	9.92	10.00	24.10	2.36	13.18	14.17	2.08	
ESh 256TC	2,4,6,8	6.25	10.00	10.00	0.58	0.55	4.75	3.11	4.00	1.416	0.375	1.625	3.75	7.25	8.50	0.25	1/2-13	4	12.28	1 1/4	10.08	11.65	10.00	25.83	2.36	13.18	14.17	2.08	
ESg 284TC	4,6,8	7.00	11.00	9.50	0.89	0.55	4.75	3.53	4.62	1.591	0.500	1.875	4.38	9.00	10.50	0.25	1/2-13	4	13.78	1 1/2	10.34	11.61	11.25	27.10	2.75	14.01	14.17	2.08	
ESg 284TSC	2	7.00	11.00	9.50	0.89	0.55	4.75	2.10	3.25	1.416	0.375	1.625	3.00	9.00	10.50	0.25	1/2-13	4	13.78	1 1/2	10.34	11.61	11.25	25.70	2.75	14.01	14.17	2.08	
ESg 286TC	4,6,8	7.00	11.00	11.00	0.89	0.55	4.75	3.53	4.62	1.591	0.500	1.875	4.38	9.00	10.50	0.25	1/2-13	4	13.78	1 1/2	10.34	13.11	11.25	28.60	2.75	14.01	14.17	2.08	
ESg 286TSC	2	7.00	11.00	11.00	0.89	0.55	4.75	2.10	3.25	1.416	0.375	1.625	3.00	9.00	10.50	0.25	1/2-13	4	13.78	1 1/2	10.34	13.11	11.25	27.20	2.75	14.01	14.17	2.08	

Note:

Frames 143TCL thru 256TCL are available as an option with dimension BA the same as for rigid bases.

**C-FACE WITH RIGID BASE**

(inches)

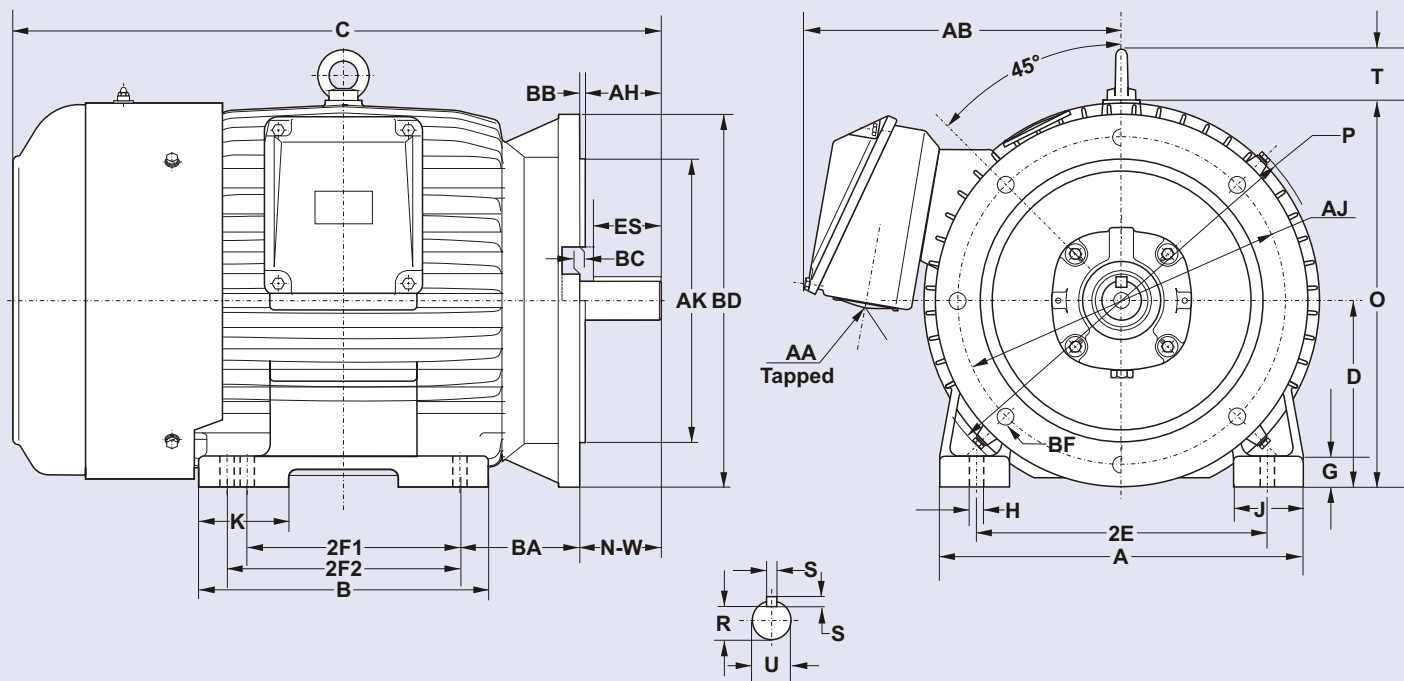
Motor Frame	Number of Poles	Mounting Dimensions																Overall Dimensions																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		D	2E	2F1	2F2	G	H	Shaft End						C-face						A	AA	AB	B	BD	C	J	K	O	P	T																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
								BA	ES	N-W	R	S	U	AH	AJ	AK	BB/ BC	BF size	No.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

Note: For STe range: 326 base suitable for 324 frame mounting, 365 base suitable for 364 frame mounting, 445 base suitable for 444 frame mounting, 444 base suitable for 445 frame mounting.



# D-FACE WITH RIGID BASE

OVERALL AND MOUNTING DIMENSIONS



(inches)

Motor Frame	Number of Poles	Mounting Dimensions																		Overall Dimensions												
		D	2E	2F1	2F2	G	H	Shaft End						D-face								A	AA	AB	B	BD	C	J	K	O	P	T
								BA	ES	N-W	R	S	U	AH	AJ	AK	BE	BC	BB	BF												
																					size											
STe324TSDL	2	8.00	12.50	10.50	-	1.38	0.66	5.25	2.75	3.75	1.591	0.500	1.875	3.75	16.00	14.00	0.75	0	0.25	0.81	4	15.8	2	14.0	13.4	18.0	29.2	3.15	3.94	16.7	17.7	2.50
STe324TDL	4,6	8.00	12.50	10.50	-	1.38	0.66	5.25	4.33	5.25	1.845	0.500	2.125	5.25	16.00	14.00	0.75	0	0.25	0.81	4	15.8	2	14.0	13.4	18.0	30.7	3.15	3.94	16.7	17.7	2.50
STe326TSDL	2	8.00	12.50	10.50	12.00	1.38	0.66	5.25	2.75	3.75	1.591	0.500	1.875	3.75	16.00	14.00	0.75	0	0.25	0.81	4	15.8	2	14.0	14.9	18.0	30.7	3.15	3.94	16.7	17.7	2.50
STe326TDL	4,6	8.00	12.50	10.50	12.00	1.38	0.66	5.25	4.33	5.25	1.845	0.500	2.125	5.25	16.00	14.00	0.75	0	0.25	0.81	4	15.8	2	14.0	14.9	18.0	32.3	3.15	3.94	16.7	17.7	2.50
STe364TSDL	2	9.00	14.00	11.25	-	1.49	0.66	5.88	2.75	3.75	1.591	0.500	1.875	3.75	16.00	14.00	0.75	0	0.25	0.81	4	17.5	3	15.4	14.0	18.0	31.5	3.35	4.33	18.8	19.9	2.50
STe364TDL	4	9.00	14.00	11.25	-	1.49	0.66	5.88	4.92	5.88	2.021	0.625	2.375	5.88	16.00	14.00	0.75	0	0.25	0.81	4	17.5	3	15.4	14.0	18.0	33.7	3.35	4.33	18.8	19.9	2.50
STe365TSDL	2	9.00	14.00	11.25	12.25	1.49	0.66	5.88	2.75	3.75	1.591	0.500	1.875	3.75	16.00	14.00	0.75	0	0.25	0.81	4	17.5	3	15.4	15.0	18.0	32.5	3.35	4.33	18.8	19.9	2.50
STe365TDL	4	9.00	14.00	11.25	12.25	1.49	0.66	5.88	4.92	5.88	2.021	0.625	2.375	5.88	16.00	14.00	0.75	0	0.25	0.81	4	17.5	3	15.4	15.0	18.0	34.7	3.35	4.33	18.8	19.9	2.50
STe405TSDL	2	10.00	16.00	13.75	-	1.57	0.81	6.62	3.50	4.25	1.845	0.500	2.125	4.25	20.00	18.00	1.00	0	0.25	0.81	8	19.5	3	16.3	16.5	22.0	36.3	3.54	4.72	20.5	21.1	2.95
STe405TDL	4	10.00	16.00	13.75	-	1.57	0.81	6.62	6.30	7.25	2.450	0.750	2.875	7.25	20.00	18.00	1.00	0	0.25	0.81	8	19.5	3	16.3	16.5	22.0	39.4	3.54	4.72	20.5	21.1	2.95
STe444TSDL	2	11.00	18.00	14.50	-	1.57	0.81	7.50	4.30	4.75	2.021	0.625	2.375	4.75	20.00	18.00	1.00	0	0.25	0.81	8	22.1	2×3	18.7	20.5	22.0	39.2	3.94	6.50	23.1	24.3	2.95
STe444TDL	4	11.00	18.00	14.50	-	1.57	0.81	7.50	7.90	8.50	2.880	0.875	3.375	8.50	20.00	18.00	1.00	0	0.25	0.81	8	22.1	2×3	18.7	20.5	22.0	43.0	3.94	6.50	23.1	24.3	2.95
STe445TSDL	2	11.00	18.00	14.50	16.50	1.57	0.81	7.50	4.30	4.75	2.021	0.625	2.375	4.75	20.00	18.00	1.00	0	0.25	0.81	8	22.1	2×3	18.7	20.5	22.0	39.2	3.94	6.50	23.1	24.3	2.95
STe445TDL	4	11.00	18.00	14.50	16.50	1.57	0.81	7.50	7.90	8.50	2.880	0.875	3.375	8.50	20.00	18.00	1.00	0	0.25	0.81	8	22.1	2×3	18.7	20.5	22.0	43.0	3.94	6.50	23.1	24.3	2.95

Note: For STe range:

326 base suitable for 324 frame mounting, 365 base suitable for 364 frame mounting, 445 base suitable for 444 frame mounting, 444 base suitable for 445 frame mounting.

## FEATURES AND BENEFITS

- Design B and C
- High service factor up to 1.4
- TEFC construction with rigid base mounting and surface cooling fan
- Cast iron rigid frames and end brackets
- Ball bearings mechanically locked on the shaft end
- Rated output for continuous duty service
- Rated voltage 230/460V or 575V, usable at 208V
- Frequency 50/60 Hz
- Environment temperature 5°F to 104°F
- Altitude up to 1000 m above sea level
- Non hygroscopic insulation class F (temperature rise for class B)
- Degree of protection IP 55 (IEC)
- Drain holes provided for all mounting positions
- F1 assembly, convertible to F2
- Horizontal and vertical application as an option
- Other features the same as in comparable general purpose motors

## APPLICATION

The motors are designed for use with close-coupled pumps having NEMA JP or JM mounting end shaft dimensions. In such applications, the pump impeller is mounted directly on the motor shaft. All motors are designed for continuous duty service.

## STANDARDS

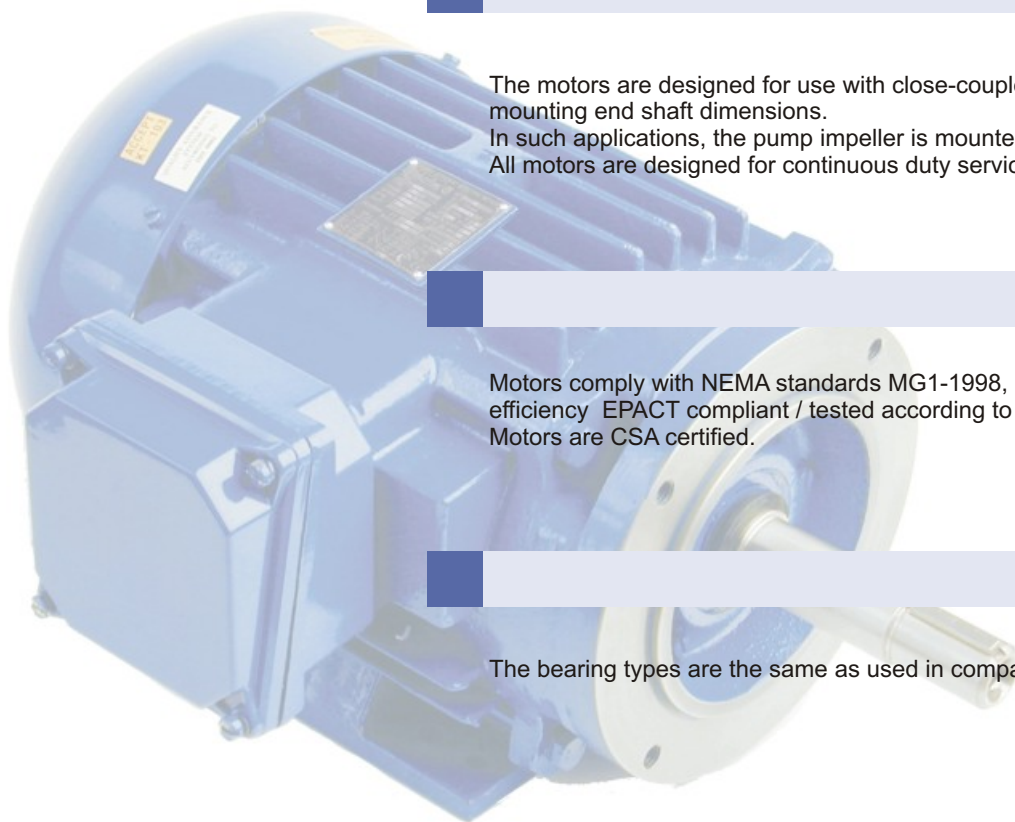
Motors comply with NEMA standards MG1-1998, efficiency EPACT compliant / tested according to IEEE 112, method B. Motors are CSA certified.

## BEARINGS

The bearing types are the same as used in comparable general purpose motors.

## PERFORMANCE

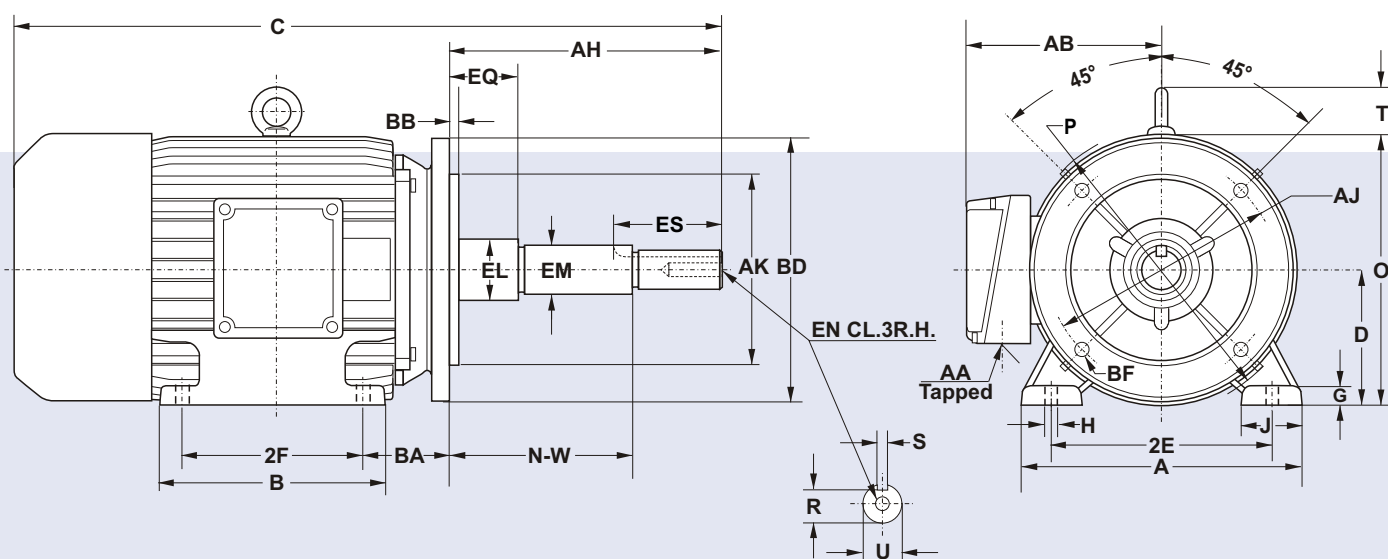
Electrical performance is the same as for comparable general purpose motors.



# MOUNTING AND OVERALL DIMENSIONS

(inches)

Frame	U	AH	AJ	AK	BB	BD	BF			EL	EM	EN			EQ	Keyseat			ET
							Number	Tap size	Bolt Penetration Allowance			Tap size	Tap Drill Depth Max	Bolt Penetration Allowance		R	ES Min	S	
143 JP										1.156									
145 JP		7.343								1.154					1.578				5.952
182 JP		7.281								1.250					1.548				5.922
184 JP	0.8745			4.500	0.156	6.50	4	3/8-16	0.56	1.248	1.0000	3/8-16	1.12	0.85		0.771	1.65	0.190	
143 JM	0.8740		5.875	4.497	0.125					1.156	0.9995					0.756		0.188	
145 JM		4.281								1.154					0.640				2.890
182 JM		4.219								1.250					0.610				2.860
184 JM										1.248									



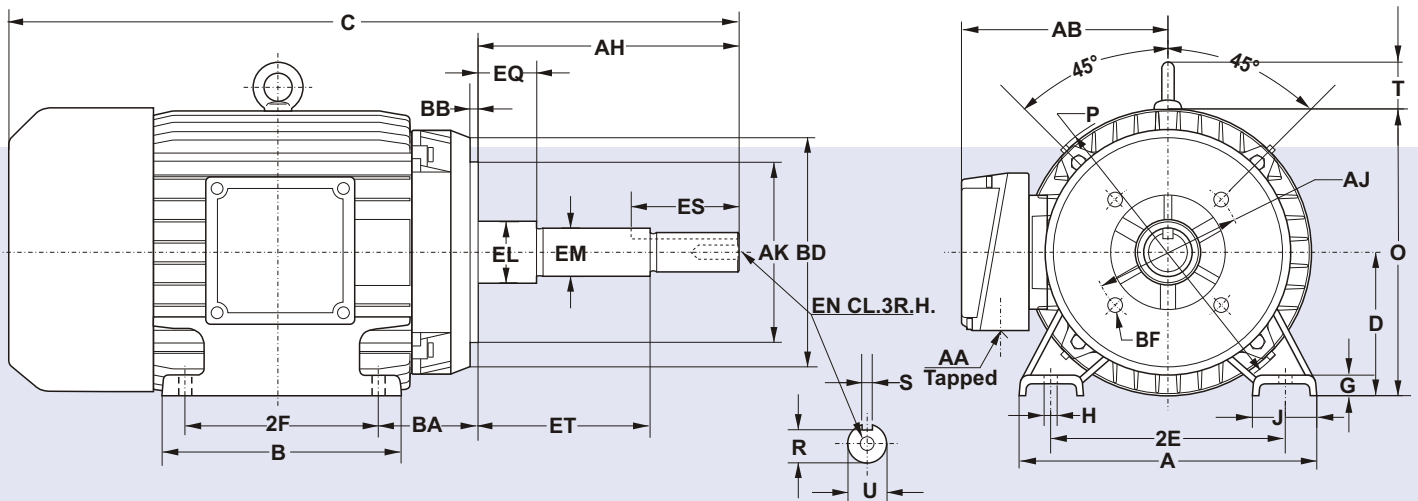
(inches)

Frame	D	2E	2F	G	H	BA	A	AA	AB	B	C	J	O	P	T
143 JP	3.50	5.50	4.00	0.39	0.34	2.36	6.62	3/4	6.50	5.83	18.24	1.66	7.48	8.27	-
145 JP	3.50	5.50	5.00	0.39	0.34	2.36	6.62	3/4	6.50	7.00	19.41	1.66	7.48	8.27	-
182 JP	4.50	7.50	4.50	0.60	0.41	2.78	9.00	1	7.90	6.74	19.82	2.13	9.09	9.53	1.77
184 JP	4.50	7.50	5.50	0.60	0.41	2.78	9.00	1	7.90	8.31	21.44	2.13	9.09	9.53	1.77
143 JM	3.50	5.50	4.00	0.39	0.34	2.36	6.62	3/4	6.50	5.83	15.18	1.66	7.48	8.27	-
145 JM	3.50	5.50	5.00	0.39	0.34	2.36	6.62	3/4	6.50	7.00	16.35	1.66	7.48	8.27	-
182 JM	4.50	7.70	4.50	0.60	0.41	2.78	9.00	1	7.90	6.74	16.76	2.13	0.09	9.53	1.77
184 JM	4.50	7.70	5.50	0.60	0.41	2.78	9.00	1	7.90	8.31	18.37	2.13	0.09	9.53	1.77

# MOUNTING AND OVERALL DIMENSIONS

(inches)

Frame	U	AH	AJ	AK	BB	BD Max	BF			EL	EM	EN			EQ	Keyseat			ET
							Number	Tap size	Bolt Penetration Allowance			Tap size	Tap Drill Depth Max	Bolt Penetration Allowance		R	ES Min	S	
213 JP						9.0						3/8-16	1.12	0.85			1.65		5.890
215 JP			7.250	8.500				1/2-13	0.75										5.860
254 JP	1.2495	8.156		8.497		10.0				1.750	1.3750	1/2-13	1.50		2.390	1.112	0.252		
256 JP	1.2490	8.094								1.748	1.3745			1	2.360	1.097	0.250		
284 JP			11.00	12.500		14.0		5/8-11	0.94			1/2-13	1.50				2.53		5.895
286 JP				12.495	0.312 0.250		4												5.855
213 JM	0.8745	4.281				9.0				1.250	1.0000	3/8-16	1.1222	0.85		0.771	1.65	0.190	2.890
215 JM	0.8740	4.219		8.500				1/2-13	0.75	1.248	0.9995				0.640	0.756	0.188		2.860
254 JM			7.250	8.497		10.0						1/2-13	1.50		0.610				3.015
256 JM	1.2495	5.281								1.750	1.3750			1		1.112	2.53	0.252	2.985
284 JM	1.2490	5.219				14.0		5/8-11	0.94	1.748	1.3745	1/2-13	1.50		0.645	1.097	0.250		3.020
286 JM			11.00	12.495											0.605				2.980



(inches)

Frame	D	2E	2F	G	H	BA	A	AA	AB	B	C	J	O	P	T
213 JP	5.25	8.50	5.50	0.72	0.41	3.80	10.24	1	8.45	8.10	23.80	2.20	10.55	10.94	1.77
215 JP	5.25	8.50	5.50	0.72	0.41	3.80	10.24	1	8.45	9.60	25.70	2.20	10.55	10.94	1.77
254 JP	6.25	10.00	8.25	0.58	0.55	4.50	12.28	1 1/4	10.08	9.92	28.51	2.36	13.18	14.17	2.08
256 JP	6.25	10.00	10.00	0.58	0.55	4.50	12.28	1 1/4	10.08	11.65	30.24	2.36	13.18	14.17	2.08
284 JP	7.00	11.00	9.50	0.89	0.55	4.95	13.78	1 1/2	10.34	11.61	30.88	2.75	14.01	14.17	2.08
286 JP	7.00	11.00	11.00	0.89	0.55	4.95	13.78	1 1/2	10.34	13.11	32.38	2.75	14.01	14.17	2.08
213 JM	5.25	8.50	5.50	0.72	0.41	3.80	10.24	1	8.45	8.10	20.40	2.20	10.55	10.94	1.77
215 JM	5.25	8.50	5.50	0.72	0.41	3.80	10.24	1	8.45	9.60	21.90	2.20	10.55	10.94	1.77
254 JM	6.25	10.00	8.25	0.58	0.55	4.50	12.28	1 1/4	10.08	9.92	25.63	2.36	13.18	14.17	2.08
256 JM	6.25	10.00	10.00	0.58	0.55	4.50	12.28	1 1/4	10.08	11.65	27.36	2.36	13.18	14.17	2.08
284 JM	7.00	11.00	9.50	0.89	0.55	4.95	13.78	1 1/2	10.34	11.61	28.00	2.75	14.01	14.17	2.08
286 JM	7.00	11.00	11.00	0.89	0.55	4.95	13.78	1 1/2	10.34	13.11	29.50	2.75	14.01	14.17	2.08

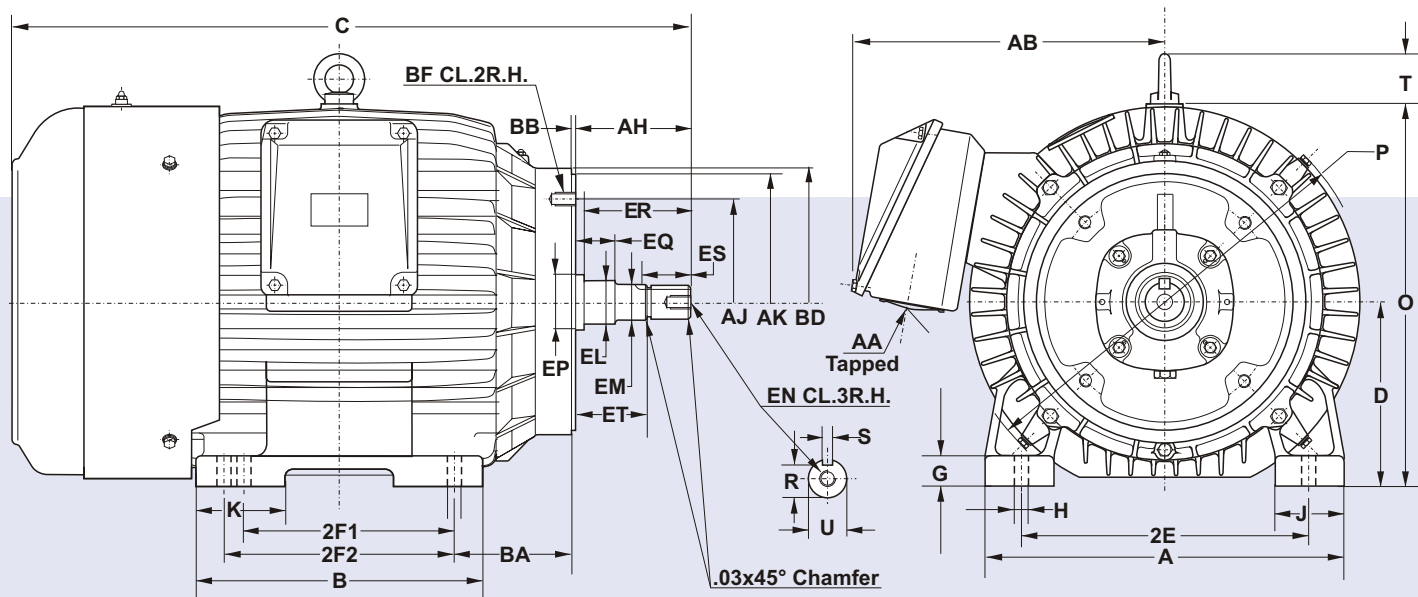
JP / JM PUMP MOTORS



# MOUNTING AND OVERALL DIMENSIONS

(inches)

Frame	U	AH	AJ	AK	BB	BD	BF			EL	EM	EN			EP	EQ	ER	Keyseat			ET	
							Number	Tap size	Bolt Penetration Allowance			Tap size	Tap Drill Depth Max	Bolt Penetration Allowance				Min	Min	R		
324 JP	1.2495									1.750	1.3750				2.125	2.360		1.112		0.252		
326 JP	1.2490	8.156								1.748	1.3745					2.395	8.125	1.097		0.250		5.895
364 JP	1.6245	8.094	11.000	12.500	0.312	14.0	4	5/8-11	0.94	2.125	1.7500	1/2-13	1.50	1.00	2.500	2.395		1.416	2.53	0.377		5.855
365 JP	1.6240			12.495	0.250					2.123	1.7495				2.355	1.401	0.375					
324 JM	1.2495	5.281								1.750	1.3750				2.125	0.645	5.25	1.112		0.252	3.020	
326 JM	1.2490	5.219								1.748	1.3745					0.605		1.097		0.250	2.980	



Frame	D	2E	2F1	2F2	G	H	BA	A	AA	AB	B	C	J	K	O	P	T
324 JP	8.00	12.50	10.50	-	1.38	0.66	5.25	15.8	2	14.0	13.4	33.2	3.15	3.94	16.7	17.7	2.5
326 JP	8.00	12.50	10.50	12.00	1.38	0.66	5.25	15.8	2	14.0	14.9	34.8	3.15	3.94	16.7	17.7	2.5
364 JP	9.00	14.00	11.25	-	1.49	0.66	5.88	17.5	3	15.4	14.0	35.8	3.35	4.33	18.8	19.9	2.5
365 JP	9.00	14.00	11.25	12.25	1.49	0.66	5.88	17.5	3	15.4	15.0	36.8	3.35	4.33	18.8	19.9	2.5
324 JM	8.00	12.50	10.50	-	1.38	0.66	5.25	15.8	2	14.0	13.4	30.3	3.15	3.94	16.7	17.7	2.5
326 JM	8.00	12.50	10.50	12.00	1.38	0.66	5.25	15.8	2	14.0	14.9	31.8	3.15	3.94	16.7	17.7	2.5

When placing an order, the following motor data should be given:

- Frame and full motor type designation
- Rated output, HP
- Rated speed, RPM
- Duty service
- Voltage and stator winding connection
- Frequency
- Mounting arrangement, assembly
- Special requirements (if any)
- Number of pieces

Information concerning auxiliary equipment like:

- Thermal protection
- Anti-condensation heaters
- Vibration sensors
- Others

When ordering spare parts the following data should be given:

- Full motor type designation and its serial number (given on motor nameplate)
- Mounting arrangement
- Name of the spare part
- Number of pieces



**CANTONI**  
**MOTOR**



ISO 9001

**Cantoni Motor S.A.**  
**M. Grażyńskiego 22**  
**43-300 Bielsko-Biała, Poland**  
**tel. +48 33 813 87 00**  
**fax +48 33 813 87 01**  
**[motor@cantonigroup.com](mailto:motor@cantonigroup.com)**  
**[www.cantonimotor.com](http://www.cantonimotor.com)**