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Kiln Duty Motors

Model No: 254TTTNA17077
Catalog No: S513

Kiln Duty Motor, 7.50 HP, 3 Ph, 60 Hz, 460 V, 1200 RPM, 254T Frame, TEAO

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Product Information Packet: Model No: 254TTTNA17077, Catalog No: S513 Kiln Duty Motor, 7.50 HP, 3 Ph, 60 Hz, 460 V, 1200 RPM, 254T Frame, TEAO

Nameplate Specifications

Phase	**3**	Output HP	**7.50 Hp**
Output KW	**5.6 kW**	Voltage	**460 V**
Speed	**1170 r/min**	Synchronous RPM	**1200 r/min**
Service Factor	**1.15**	Frame	**254T**
Enclosure	**Totally Enclosed Air Over**	Thermal Protection	**Thermostat**
Efficiency	**90.2 %**	Ambient Temperature	**90 °C**
Frequency	**60 Hz**	Current	**9.8 A**
Power Factor	**78**	Duty	**Continuous**
Insulation Class	**H**	Design Code	**B**
KVA Code	**H**	Drive End Bearing Size	**6309**
Opp Drive End Bearing Size	**6210**	UL	**Recognized**
CSA	**Y**	CE	**N**
IP Code	**54**	Number of Speeds	**1**

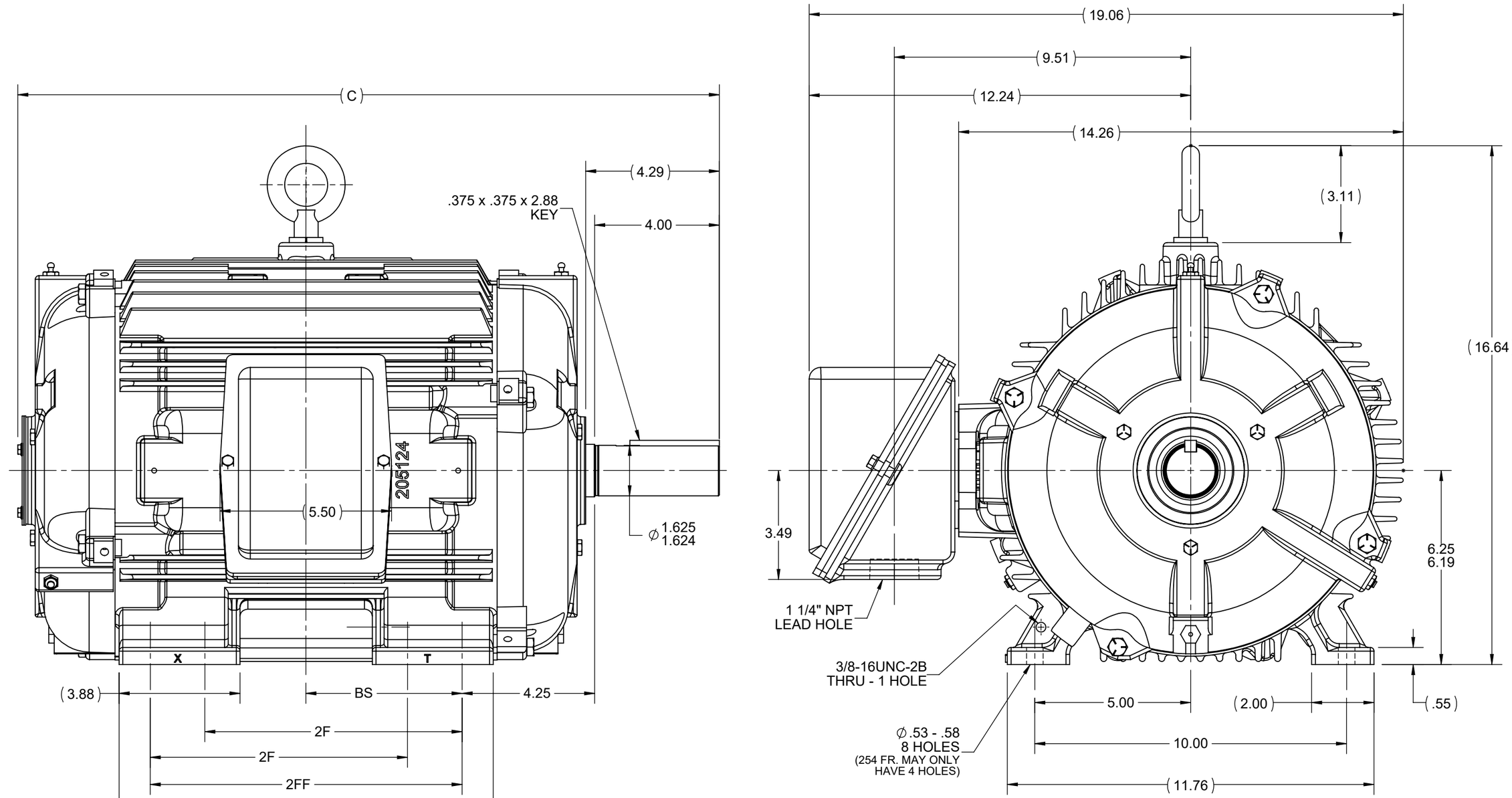
Technical Specifications

Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**6**	Rotation	**Reversible**
Resistance Main	**1.37 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**T**	Overall Length	**20.61 in**
Shaft Diameter	**1 5/8 in**	Shaft Extension	**4.25 in**
Assembly/Box Mounting	**F1/F2 Capable**	Inverter Load	**Variable 20:1**

Drawings

Connection Drawing	**A-EE7300T**	Outline Drawing	**B-SS203092-1050**

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NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
3. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.
4. DIMENSIONS IN [ ] ARE IN MILLIMETERS.

DASH	FRAME	B	C	2F	2FF	BS
1050	254T	10.25 [260.35]	20.75 [527.09]	8.25 [209.55]	- - -	4.12 [104.65]
1225	254/256T	12.00 [304.80]	22.50 [571.54]	8.25 [209.55]	10.00 [254.00]	5.00 [127.00]

DRAWING REVISION	REVISION BY	REV DATE/© DATE
E	SB	08/29/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0023556	SBD	08/29/2025

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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TOLERANCES (EXCEPT AS NOTED):

DEC.	INCH	mm	ANGLE
.X	±0.1	[±3]	±7' 30"
.XX	±0.03	[±0.8]	
.XXX	±0.005	[±0.13]	
.XXXX	±0.0005	[±0.013]	

REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.08/.38] X 45°
CORNER FILLETS: R.02 [.5]
MACHINED SURFACES: 200 / 5.1 / INCH / mm
mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

DRAWN BY	BLR
DATE	04-26-1996
APPROVED BY	BW
DATE	04-24-1996
REFERENCE	
THIRD ANGLE PROJECTION	

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DESCRIPTION
OUTLINE
250T FR. - TENV - BB - STD

MATERIAL | PROCESS/FINISH

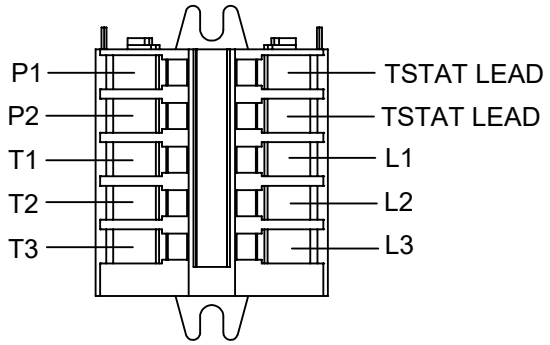
SIZE	DRAWING NUMBER	SHEET
B	SS203092	1 OF 1

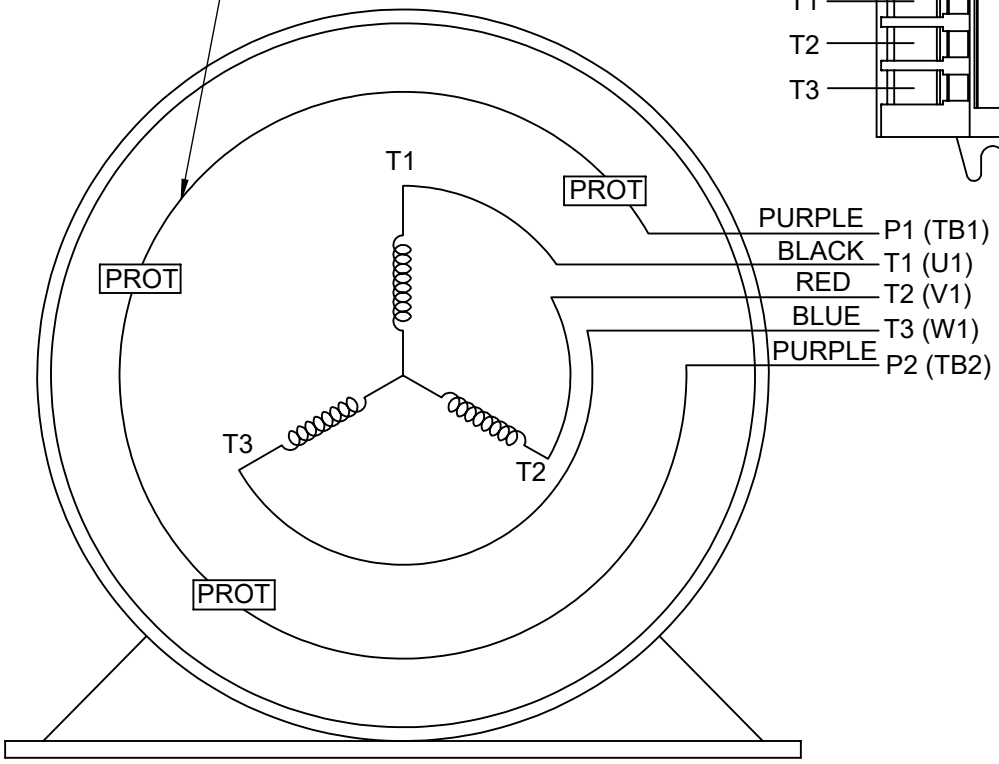
THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS

NOTE FOR FACTORY USE ONLY:
TO SURGE TEST:
FOR 3 LEAD COMMON CONNECT:
CONNECT P1 TO T1 THEN P2 TO L1
FOR 6 LEAD COMMON CONNECT:
CONNECT P1 TO BOTH T1
THEN P2 TO L1

TERMINIAL BLOCK WHEN SPECIFIED

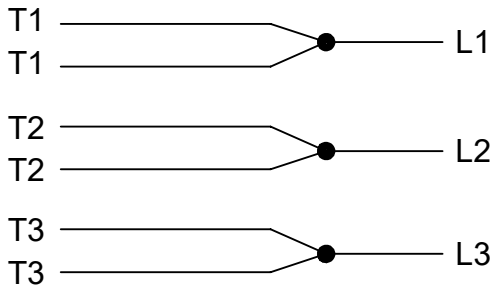




VIEW OF TERMINAL END

T2BM
T6AW
T6AL
T6Z
T4EG
T4BF
T8A
T6H
T6A
T4AX
T4A
T2A
T2F

IF MOTOR HAS MULTIPLE
T'S PER LEAD CONNECT
TOGETHER LIKE T'S



A-9806 DECAL

DRAWING REVISION AC	REVISION BY SB	REV DATE/© DATE 08/01/2025	PRIMARY DIMENSIONS ARE INCH mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY	DRAWN BY LZ	marathon™
REQUEST NUMBER CR-0023654	APPROVED BY SBD	DATE 08/01/2025		DATE 01-04-1994	
REQUEST NUMBER DESCRIPTION DRAWING TITLE BLOCK UPDATED				APPROVED BY GK	DESCRIPTION CONN DIAGRAM-EXTERNAL 3Ø-SINGLE VOLT-MOTOR WITH PROTECTOR
				DATE 01-20-1994	
				REFERENCE	MATERIAL / PROCESS/FINISH
				THIRD ANGLE PROJECTION	SIZE A / DRAWING NUMBER EE7300T / SHEET 1 OF 1

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Data Sheet

Date: 20-06-2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon® electric

254TTTNA17077

Submittal

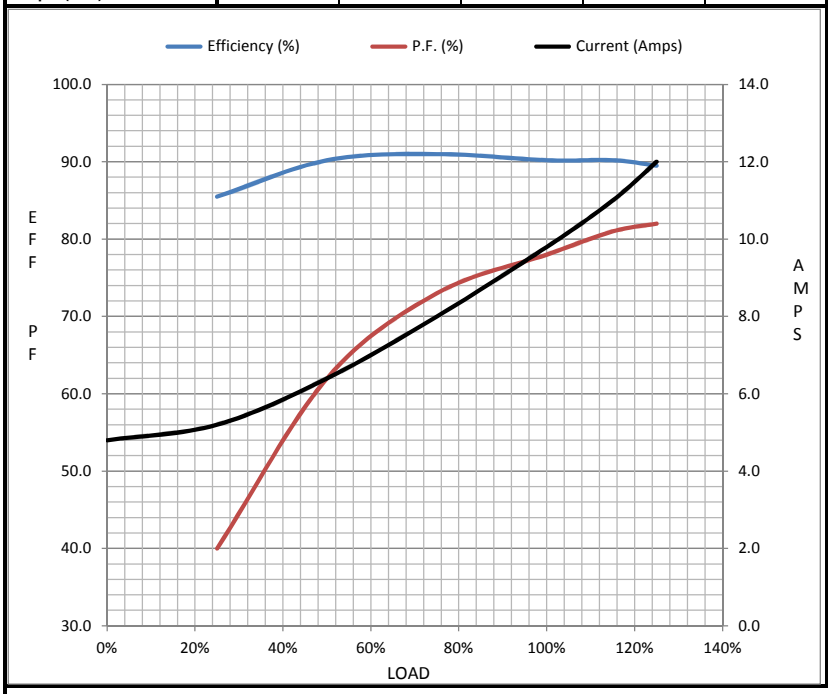
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	4.8	5.2	6.4	8.0	9.8	11.0	12.0	63.5	
Torque (ft-lb)	0.00	8.0	16.5	25.0	33.5	38.5	42.0	75.0	
RPM	1200	1192	1185	1180	1170	1,165	1162	0	
Efficiency (%)		85.5	90.2	91.0	90.2	90.2	89.5		
P.F. (%)	5.5	40.0	62.0	73.0	78.0	81.0	82.0	42.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1000	1170	1200
Current (Amps)	63.5	57.0	39.5	9.8	4.8
Torque (ft-lb)	75.0	65.0	96.0	33.5	0.00



Information Block

HP	7.5
Sync. RPM	1200
Frame	254
Enclosure	TEAO
Construction	TTN
Voltage	460 V
Frequency	60 Hz
Design	B
LR Code letter	H
Service Factor	1.15
Temp Rise @ FL	0 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	2.50 Lb-Ft²
Ref Wdg	254680 NONE
Sound Pressure @ 1M	999 dBA
VFD Rating	VARIABLE 20:1
Outline Dwg	B-SS203092-1050
Conn. Diag	A-EE7300T

Additional Specifications:

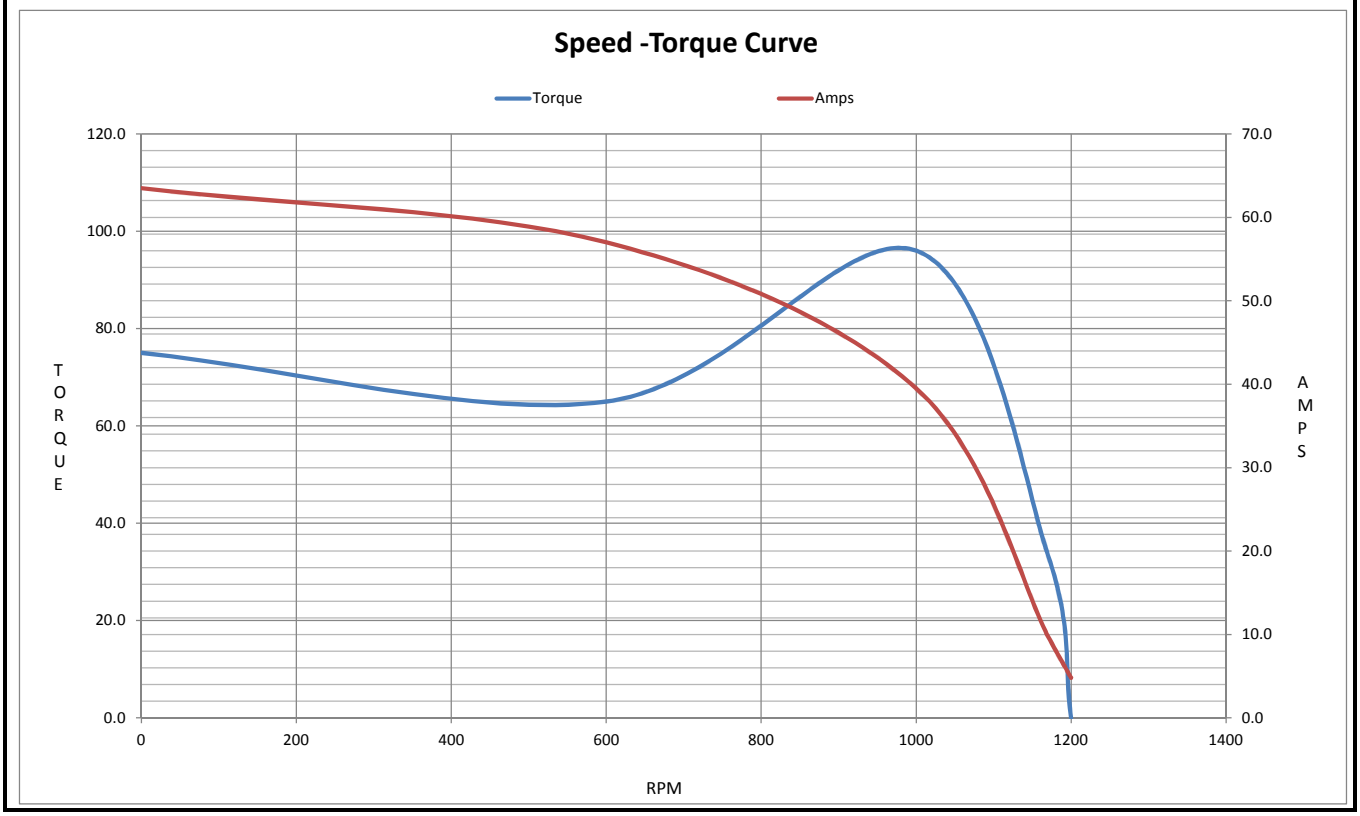
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EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.9000	0.7110	2.9180	2.8430	54.6590

Speed -Torque Curve



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CERTIFICATION DATA SHEET

Model#:	254TTTNA17077 BC	**WINDING#:**	254680 NONE 2
CONN. DIAGRAM:	A-EE7300T	**ASSEMBLY:**	F1/F2 CAPABLE
OUTLINE:	B-SS203092-1050		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
7 1/2	5.595	1200	1170	254T	TEAO	H	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	460	9.8	LINE OR INVERTER	CONTINUOUS	H4	1.15	90	3300

FULL LOAD EFF: 90.2	3/4 LOAD EFF: 91	1/2 LOAD EFF: 90.2	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 78	3/4 LOAD PF: 73	1/2 LOAD PF: 62	89.5	SQ CAGE INV RATED	4.8

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
33.5 LB-FT	63.5	75 LB-FT 224	96 LB-FT 287	45

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
- dBA	- dBA	2.5 LB-FT^2	120 LB-FT^2	20 SEC.	2	325 LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	NONE	FALSE	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL / HEAT STABILIZED	BALL / HEAT STABILIZED	DC 44M	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6309	6210						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
TSTATS CLH (N/C)	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: VARIABLE 20:1
INV. HP SPEED RANGE: NONE

ENCODER: NONE
NONE NONE
NONE NONE PPR

BRAKE: NONE NONE
NONE P/N NONE
NONE NONE
NONE FT-LB NONE V NONE Hz

* NOTES *

DATE: 06/23/2017 04:36:51 AM
FORM 3531 REV.3 02/07/99
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