marathon®

Severe Duty Motors

Model No: 254THFNA9101
Catalog No: W529

Severe Duty Motor, 5 HP, 3 Ph, 60 Hz, 460 V, 900 RPM, 254T Frame, TEFC

©2026 Marathon, All Rights Reserved.

marathon®

Product Information Packet: Model No: 254THFNA9101, Catalog No: W529 Severe Duty Motor, 5 HP, 3 Ph, 60 Hz, 460 V, 900 RPM, 254T Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**5 Hp**
Output KW	**3.7 kW**	Voltage	**460 V**
Speed	**875 r/min**	Synchronous RPM	**900 r/min**
Service Factor	**1.15**	Frame	**254T**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**88.5 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**7.5 A**
Power Factor	**71**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**F**	Drive End Bearing Size	**6309**
Opp Drive End Bearing Size	**6210**	UL	**Recognized**
CSA	**Y**	CE	**Y**
IP Code	**56**	Number of Speeds	**1**
Hazardous Location	**DIVISION 2 T2B**		

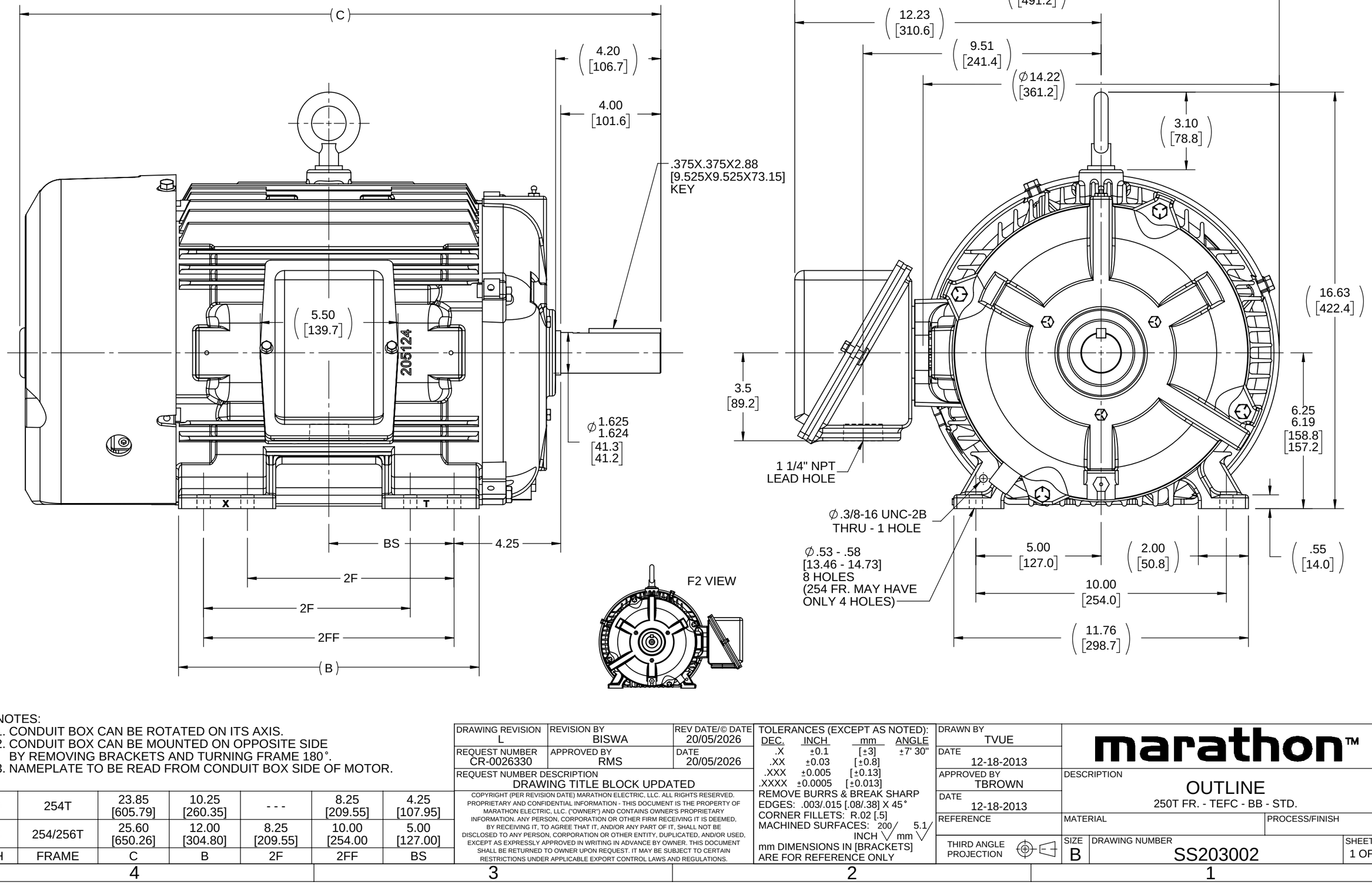
Technical Specifications

Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**8**	Rotation	**Reversible**
Resistance Main	**1.16 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	**23.65 in**
Frame Length	**10.5 in**	Shaft Diameter	**1 5/8 in**
Shaft Extension	**4.2 in**	Assembly/Box Mounting	**F1/F2 Capable**
Inverter Load	**Constant 10:1**		

Drawings

Connection Drawing	**A-EE7300**	Outline Drawing	**B-SS203002-1050**

This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created: 14/10/2026



NOTES:
1. CONDUIT BOX CAN BE ROTATED ON ITS AXIS.
2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	C	B	2F	2FF	BS
1050	254T	23.85 [605.79]	10.25 [260.35]	- - -	8.25 [209.55]	4.25 [107.95]
1225	254/256T	25.60 [650.26]	12.00 [304.80]	8.25 [209.55]	10.00 [254.00	5.00 [127.00]

DRAWING REVISION: L	REVISION BY: BISWA	REV DATE/© DATE: 20/05/2026	
REQUEST NUMBER: CR-0026330	APPROVED BY: RMS	DATE: 20/05/2026	
REQUEST NUMBER DESCRIPTION: DRAWING TITLE BLOCK UPDATED			

COPYRIGHT (PER REVISION DATE) MARATHON ELECTRIC, LLC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF MARATHON ELECTRIC, LLC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.

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]	

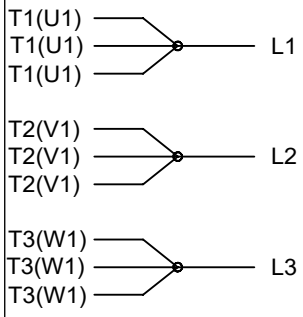
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.08/.38] X 45°
CORNER FILLETS: R.02 [.5]
MACHINED SURFACES: 200 INCH / 5.1 mm
mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

DRAWN BY: TVUE	marathon™
DATE: 12-18-2013	
APPROVED BY: TBROWN	DESCRIPTION: OUTLINE 250T FR. - TEFC - BB - STD.
DATE: 12-18-2013	
REFERENCE	MATERIAL / PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE: B / DRAWING NUMBER: SS203002 / SHEET: 1 OF 1

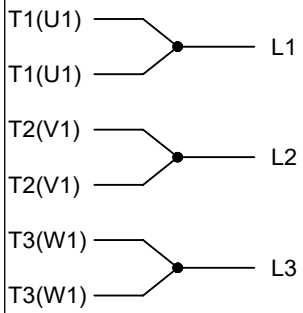
THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS

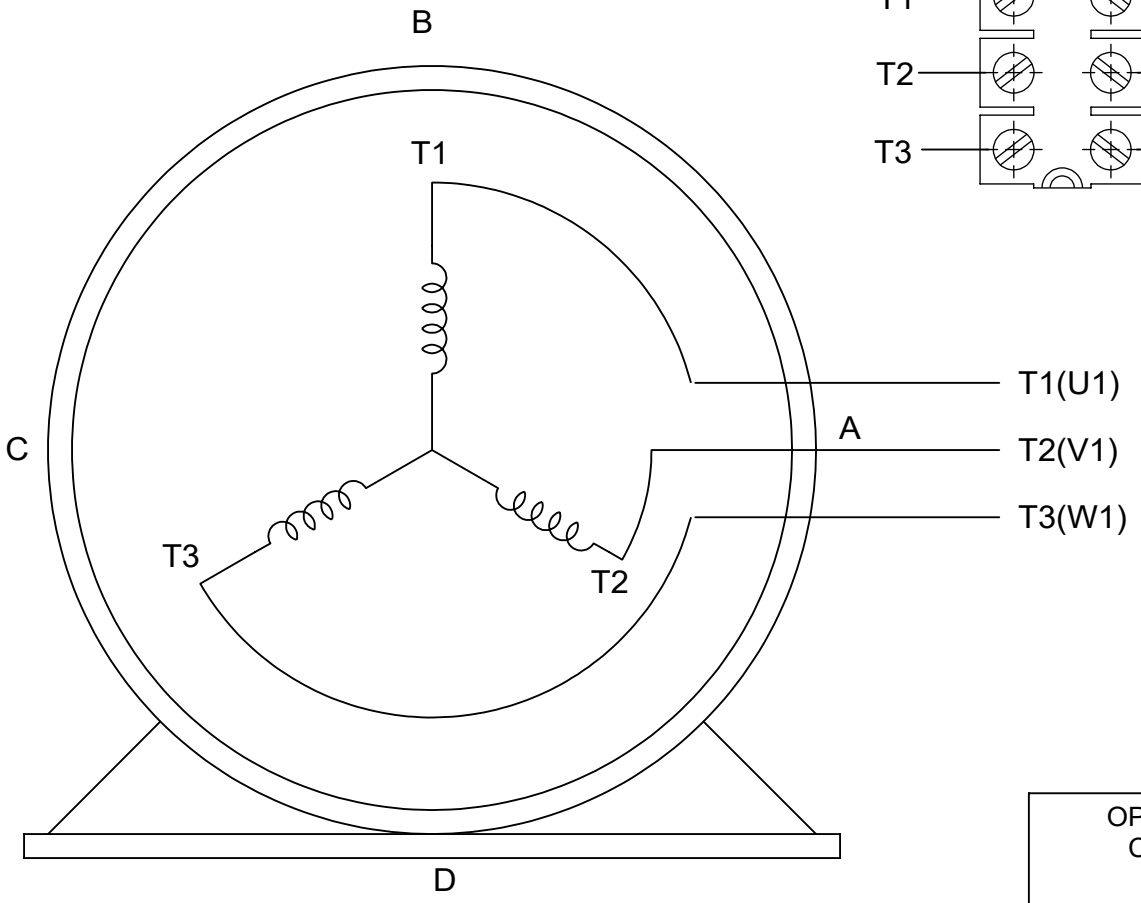
IF MOTOR HAS
9 LEADS



IF MOTOR HAS
6 LEADS



A-9806 DECAL



VIEW OF TERMINAL END

TERMINAL BLOCK WHEN SPECIFIED

OPTIONAL CORD
CONNECTION

L1	WHITE
L2	RED
L3	BLACK

DRAWING REVISION: AD	REVISION BY: SB	REV DATE/© DATE: 08/01/2025
REQUEST NUMBER: CR-0023654	APPROVED BY: SBD	DATE: 08/01/2025

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

COPYRIGHT (PER REVISION DATE) MARATHON ELECTRIC, LLC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF MARATHON ELECTRIC, LLC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.

PRIMARY DIMENSIONS ARE INCH
mm DIMENSIONS IN [BRACKETS]
ARE FOR REFERENCE ONLY

DRAWN BY: DA	
DATE: 03-26-1993	
APPROVED BY: TB	
DATE: 03-26-1993	
REFERENCE	
THIRD ANGLE PROJECTION	

marathon™

DESCRIPTION
CONNECTION DIAGRAM
EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR

MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
A	EE7300	1 OF 1

Uncontrolled Copy

Data Sheet

Date: 19-06-2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon® electric

254THFNA9101

Submittal

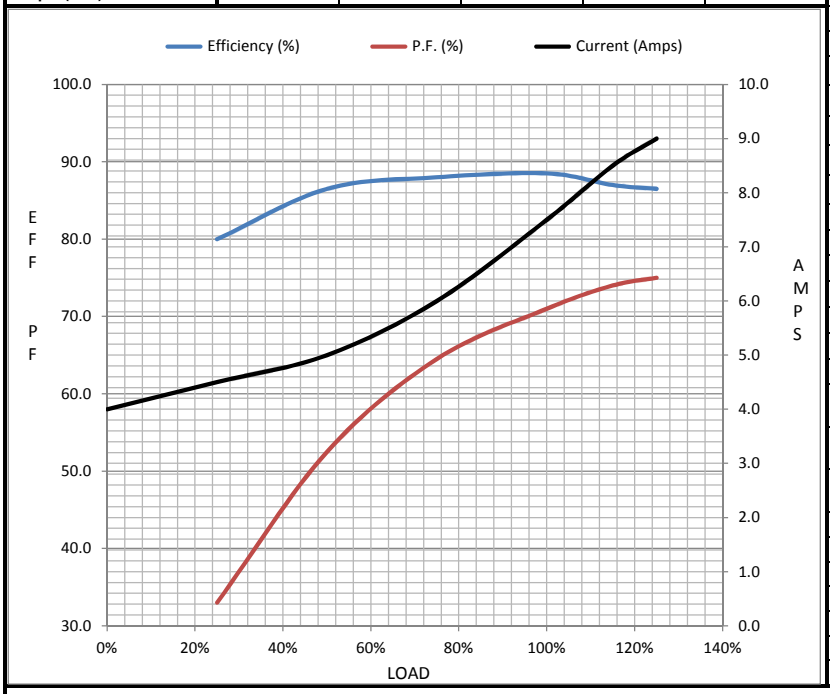
Data @ **460** V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	4.0	4.5	5.0	6.0	7.5	8.5	9.0	32.0	
Torque (ft-lb)	0.00	7.5	15.0	22.5	30.0	35.0	38.0	42.0	
RPM	900	895	885	880	875	870	865	0	
Efficiency (%)		80.0	86.5	88.0	88.5	87.0	86.5		
P.F. (%)	6.5	33.0	52.5	64.5	71.0	74.0	75.0	36.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	450	780	875	900
Current (Amps)	32.0	29.0	20.0	7.5	4.0
Torque (ft-lb)	42.0	38.0	66.0	30.0	0.00



Information Block

HP	5.0
Sync. RPM	900
Frame	254
Enclosure	TEFC
Construction	TFN
Voltage	460 V
Frequency	60 Hz
Design	B
LR Code letter	F
Service Factor	1.15
Temp Rise @ FL	40 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	2.50 Lb-Ft²
Ref Wdg	K254826 NONE
Sound Pressure @ 1M	54 dBA
VFD Rating	CONSTANT 10:1
Outline Dwg	B-SS203002-1050
Conn. Diag	A-EE7300

Additional Specifications:

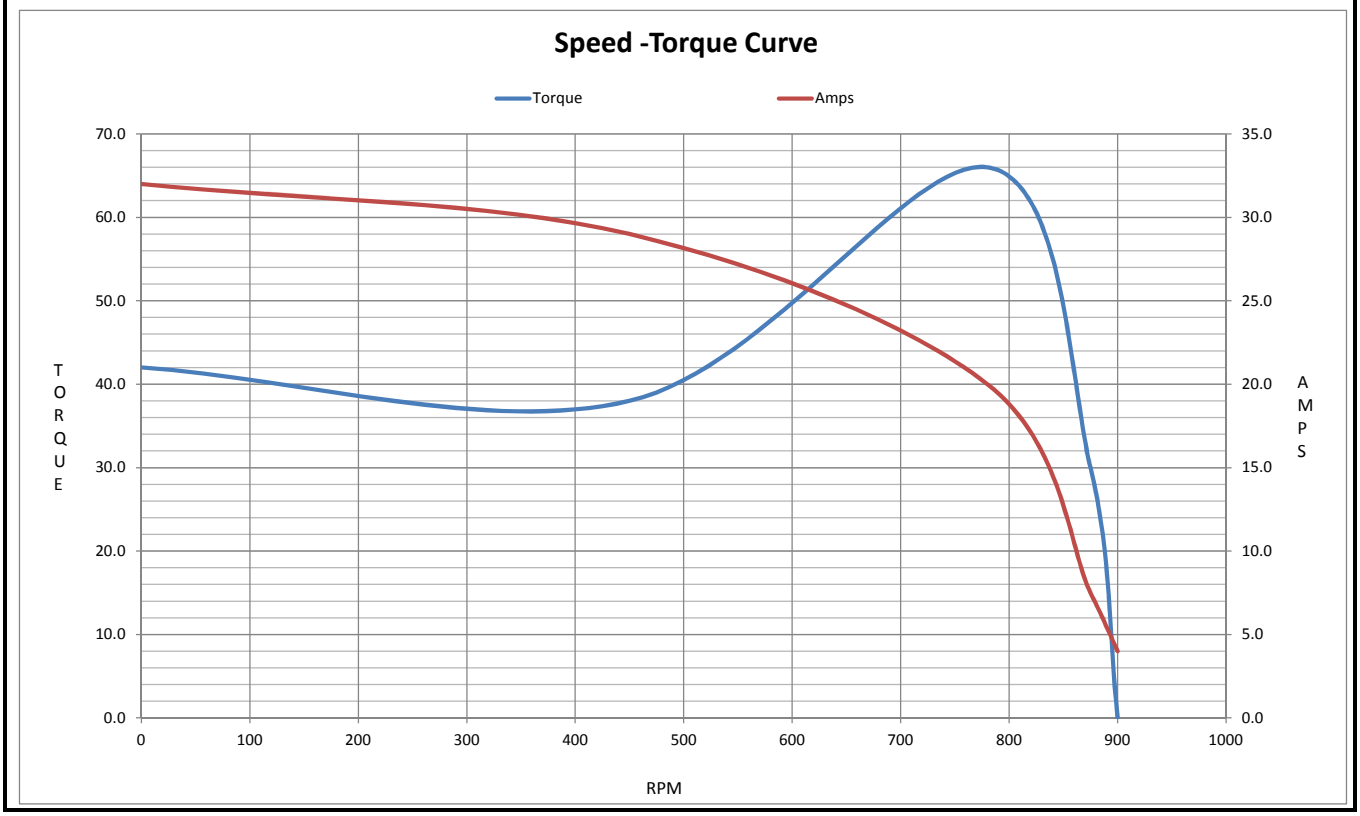
0

365THFS8036

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
1.3800	1.2270	4.9700	6.1340	59.0720

Speed -Torque Curve



Uncontrolled Copy

CERTIFICATION DATA SHEET

Model#:	254THFNA9101 AB	**WINDING#:**	K254826 NONE 7
CONN. DIAGRAM:	A-EE7300	**ASSEMBLY:**	F1/F2 CAPABLE
OUTLINE:	B-SS203002-1050		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
5	3.7	900	875	254T	TEFC	F	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	460	7.5	LINE OR INVERTER	CONTINUOUS	F3	1.15	40	3300

FULL LOAD EFF: 88.5	3/4 LOAD EFF: 88	1/2 LOAD EFF: 86.5	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 71	3/4 LOAD PF: 64.5	1/2 LOAD PF: 52.5	86.5	SQ CAGE INV RATED	4

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
30 LB-FT	32	42 LB-FT 140	66 LB-FT 220	40

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
54 dBA	64 dBA	2.5 LB-FT^2	- LB-FT^2	20 SEC.	-	350 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	DIVISION 2 T2B	FALSE	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL 6309	BALL 6210	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
NONE	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: CONSTANT 10:1
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 01:32:22 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.