marathon®

Explosion Proof Motors

Model No: 324TSTGS6501
Catalog No: E566

Explosion Proof Motor, 40 & 30 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 3600 RPM, 324TS Frame, EPFC

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Product Information Packet: Model No: 324TSTGS6501, Catalog No: E566 Explosion Proof Motor, 40 & 30 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 3600 RPM, 324TS Frame, EPFC

Nameplate Specifications

Phase	**3**	Output HP	**40 & 30 Hp**
Output KW	**30.0 & 22.4 kW**	Voltage	**230/460 & 190/380 V**
Speed	**3545 & 2955 r/min**	Synchronous RPM	**3600 & 3000 r/min**
Service Factor	**1.00 & 1.00**	Frame	**324TS**
Enclosure	**Explosion Proof Fan cooled**	Thermal Protection	**Thermostat**
Efficiency	**93.6 & 94.1 %**	Ambient Temperature	**50 °C**
Frequency	**60 & 50 Hz**	Current	**94/47 & 83/41.5 A**
Power Factor	**85**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6312**
Opp Drive End Bearing Size	**6311**	UL	**UL Listed And CSA Certified**
CSA	**Y**	CE	**N**
IP Code	**54**	Number of Speeds	**1**
Hazardous Location	**DIV 1 EXP PROOF CL I GR CD CL II GR FG T3C**		

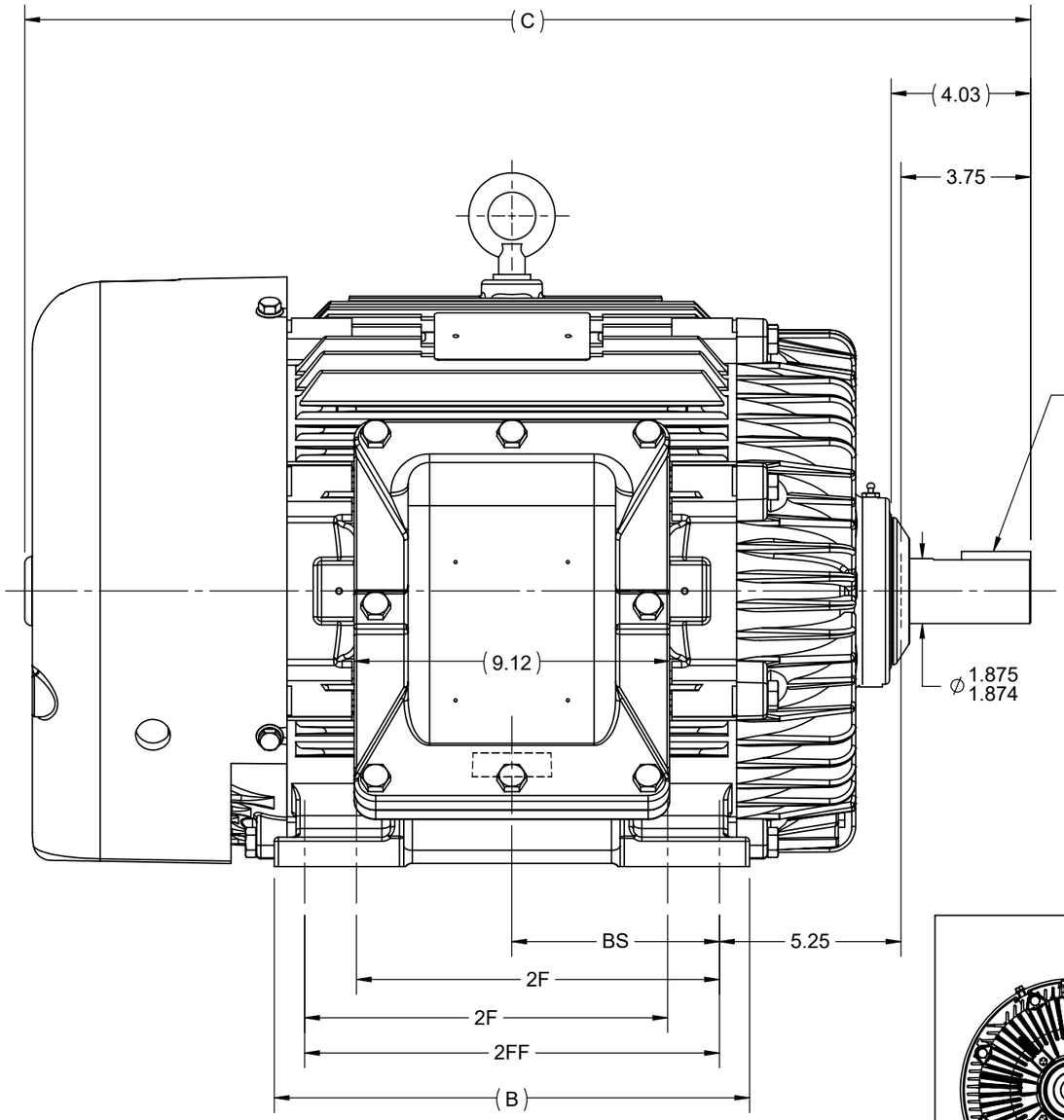
Technical Specifications

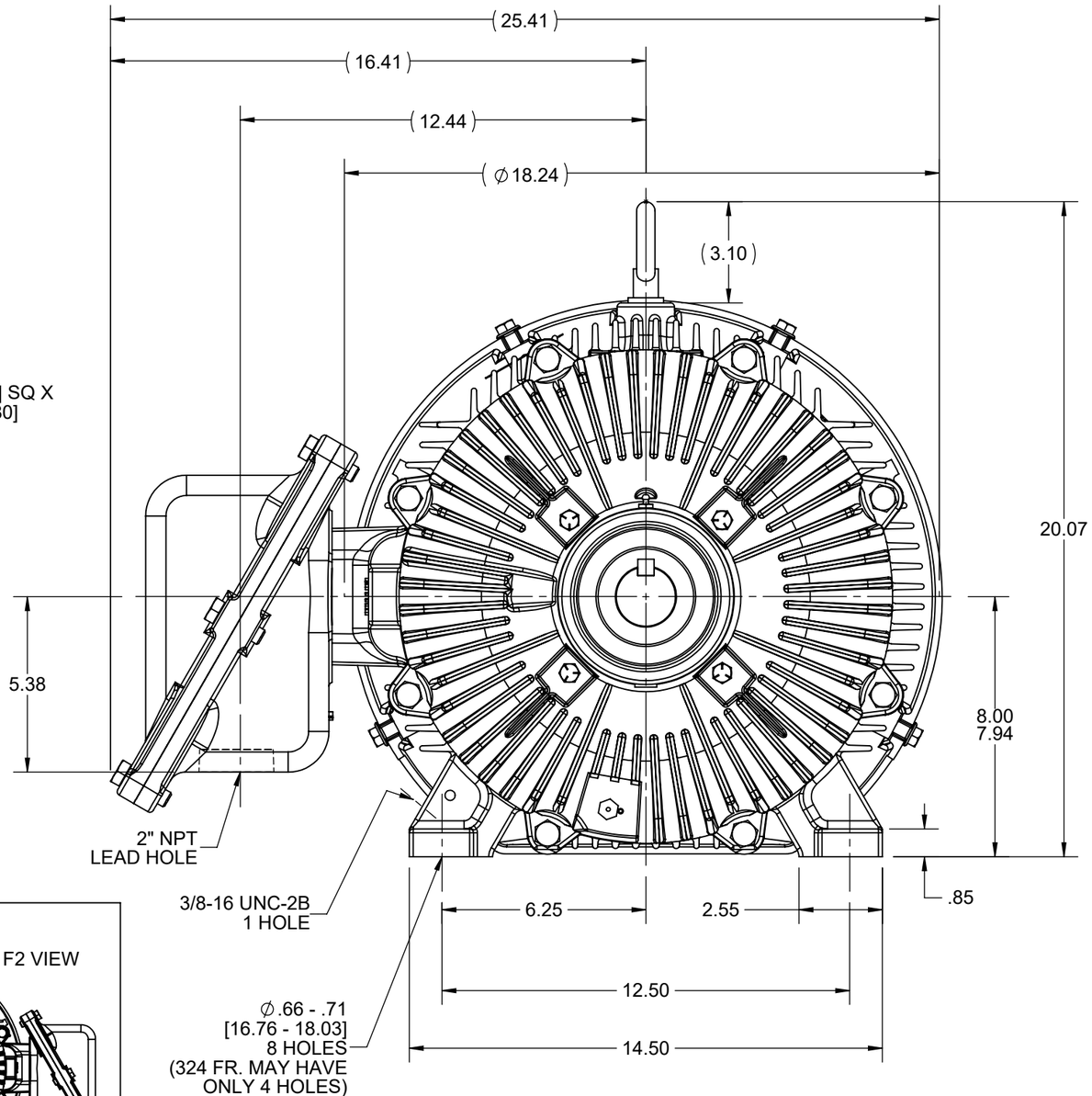
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**2**	Rotation	**Reversible**
Resistance Main	**.122 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**TS**	Overall Length	**28.87 in**
Frame Length	**13.0 in**	Shaft Diameter	**1 7/8 in**
Shaft Extension	**4 in**	Assembly/Box Mounting	**F1 Only**
Inverter Load	**Constant 10:1**		

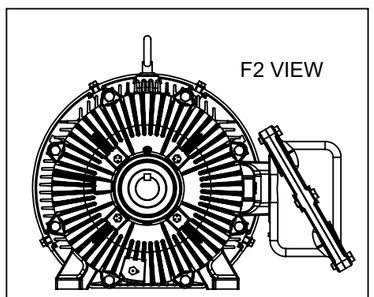
Drawings

Connection Drawing	**A-EE7308AD**	Outline Drawing	**B-SS28118-1300**

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NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	C	B	2F	2FF	BS
1150	324TS	27.60 [701.04]	13.00 [330.20]	- - -	10.50 [266.70]	5.25 [133.35]
1300	324/326TS	29.10 [739.06]	14.50 [368.30	10.50 [266.70]	12.00 304.80]	6.00 152.40]
1450	326TS	30.60 [777.25]	15.00 [381.00]	12.00 304.80]	13.50 [342.90]	6.75 [171.45]

DRAWING REVISION	REVISION BY	REV DATE/© DATE
M	SB	08/12/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0023600	SBD	08/12/2025

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 INCH / 5.1 mm
mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

DRAWN BY	MRB
DATE	09-06-1995
APPROVED BY	GK
DATE	09-06-1995
REFERENCE	

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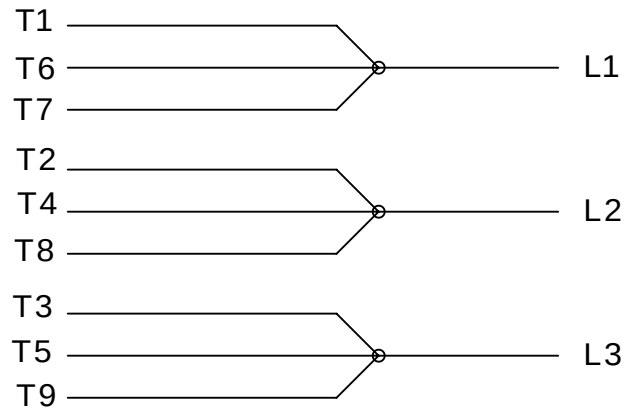
DESCRIPTION
OUTLINE
320TS FR. - EPFC - BB

MATERIAL | PROCESS/FINISH

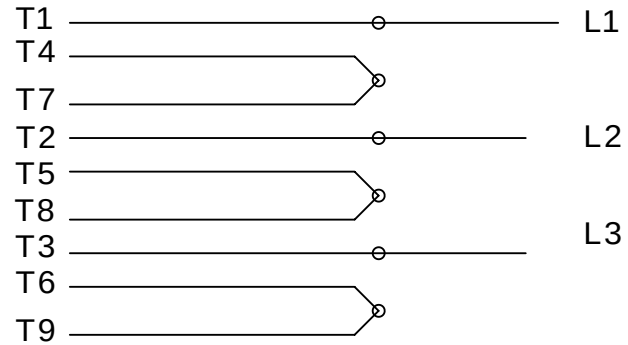
THIRD ANGLE PROJECTION

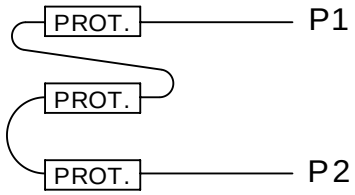
SIZE	DRAWING NUMBER	SHEET
B	SS28118	1 OF 1

LOW VOLTAGE

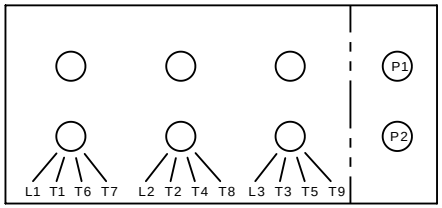


HIGH VOLTAGE

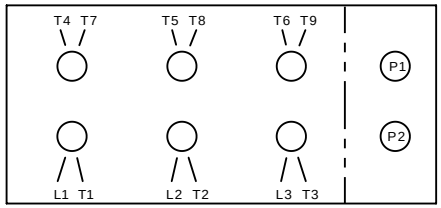


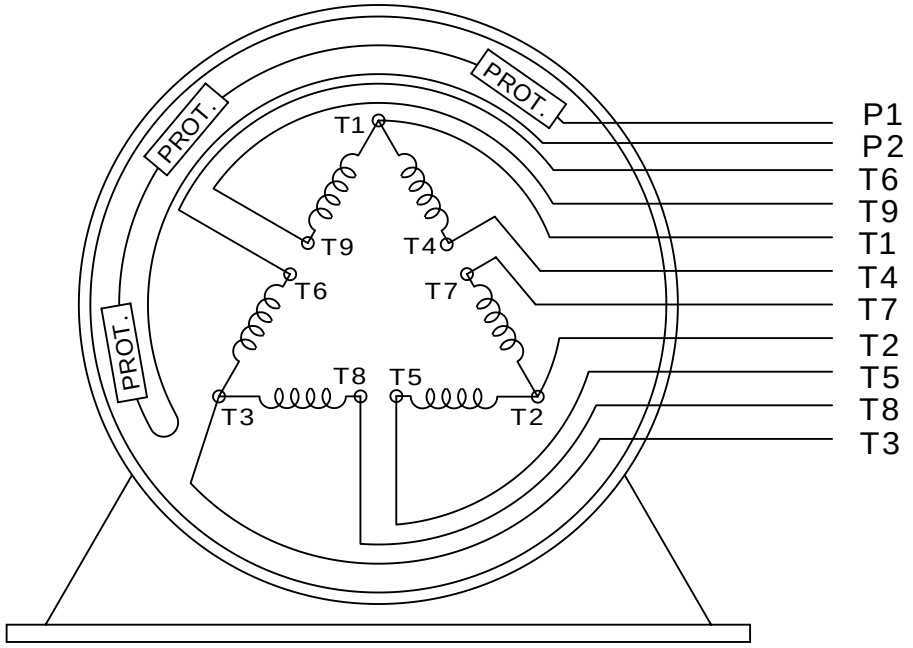


LOW VOLTAGE



HIGH VOLTAGE





VIEW OF TERMINAL END

WHEN MORE THAN ONE PROT. IS USED; PROT. ARE CONNECTED IN SERIES

DRAWING REVISION: M	REVISION BY: SB	REV DATE/© DATE: 06/03/2026	PRIMARY DIMENSIONS ARE INCH mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY	DRAWN BY: MJD	marathon™
REQUEST NUMBER: CR-0026504	APPROVED BY: RMS	DATE: 06/03/2026		DATE: 12-19-1997	
REQUEST NUMBER DESCRIPTION: DRAWING TITLE BLOCK UPDATED				APPROVED BY: GK	DESCRIPTION: CONN DIAGRAM-EXTERNAL
				DATE: 01-07-1998	
				REFERENCE	MATERIAL / PROCESS/FINISH
				THIRD ANGLE PROJECTION	SIZE: A / DRAWING NUMBER: ee7308ad / SHEET: 1 OF 1

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Data Sheet

Date: 29-06-2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon® electric

324TSTGS6501

Submittal

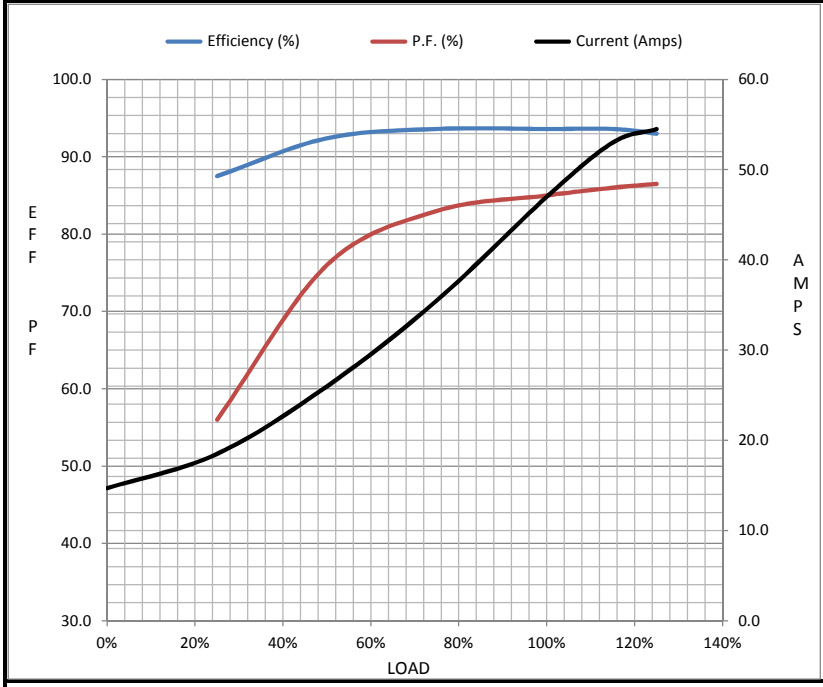
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	14.7	18.5	26.0	35.5	47.0	53.0	54.5	275	
Torque (ft-lb)	0.00	14.5	29.5	44.0	59.5	68.5	74.5	91.5	
RPM	3600	3590	3575	3560	3545	3,540	3530	0	
Efficiency (%)		87.5	92.4	93.6	93.6	93.6	93.0		
P.F. (%)	9.3	56.0	76.0	83.0	85.0	86.0	86.5	29.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3300	3545	3600
Current (Amps)	275	248	172	47.0	14.7
Torque (ft-lb)	91.5	82.0	157	59.5	0.00



Information Block

HP	40.0
Sync. RPM	3600
Frame	324
Enclosure	TEFC
Construction	TFN
Voltage	230/460#190/38(V
Frequency	60 Hz
Design	B
LR Code letter	G
Service Factor	1.15
Temp Rise @ FL	60 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	4.9 Lb-Ft²
Ref Wdg	324248 NONE
Sound Pressure @ 1M	72 dBA
VFD Rating	CONSTANT 10:1
Outline Dwg	B-SS28118-1300
Conn. Diag	A-EE7308AD

Additional Specifications:

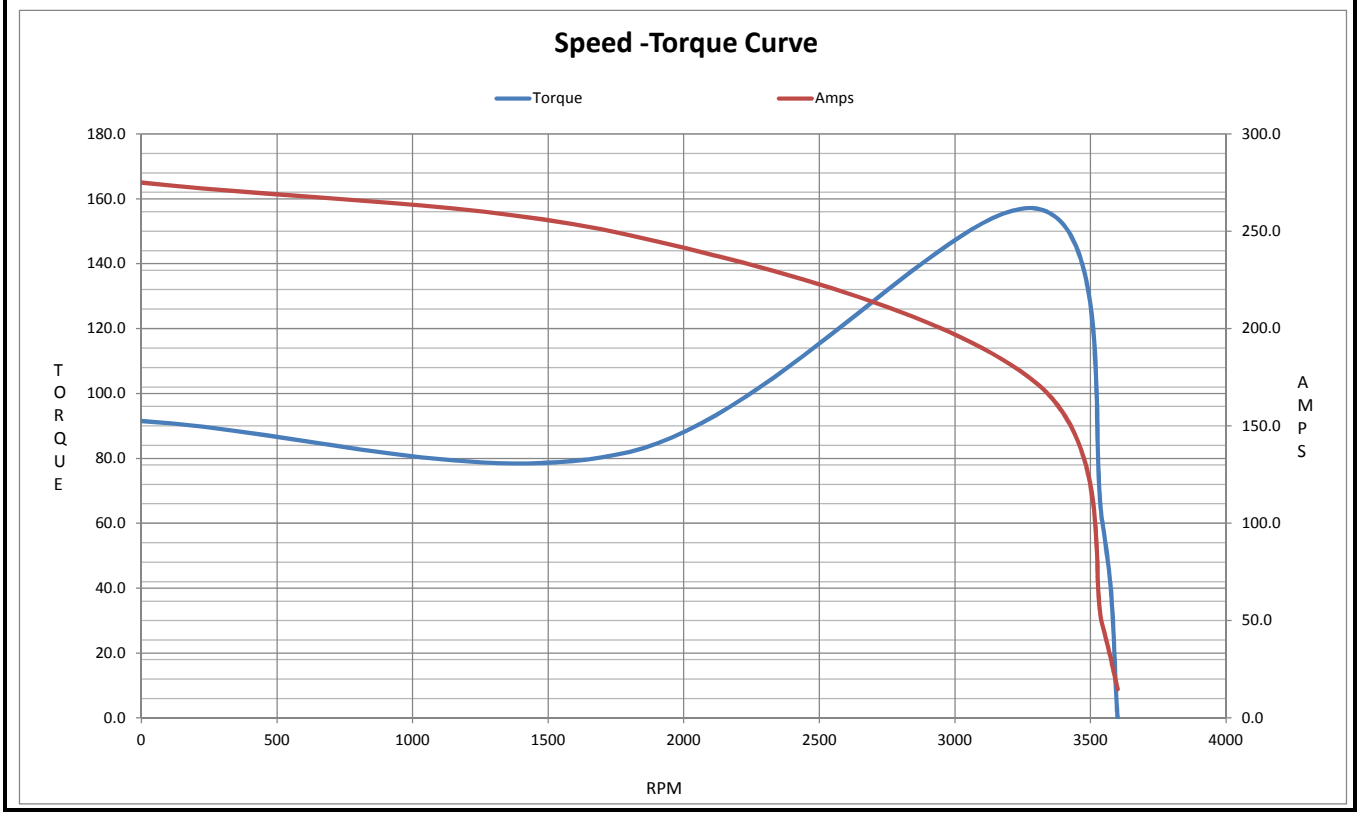
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365THFS8036

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0750	0.0720	0.6480	0.4750	18.6730

Speed -Torque Curve



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CERTIFICATION DATA SHEET

Model#:	324TSTGS6501 BS	**WINDING#:**	324248 NONE 6
CONN. DIAGRAM:	A-EE7308AD	**ASSEMBLY:**	F1 ONLY
OUTLINE:	B-SS28118-1300		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
40&30	30&22.4	3600	3545&2955	324TS	EPFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/380	94/47&83/41.5	LINE OR INVERTER	CONTINUOUS	F3	1.15/1.15	40	3300

FULL LOAD EFF: 93.6&94.1	3/4 LOAD EFF: 93.6	1/2 LOAD EFF: 92.4	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 85&85.5	3/4 LOAD PF: 83	1/2 LOAD PF: 76	93	SQ CAGE INV RATED	29.4 / 14.7

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
59.5 LB-FT	550 / 275	91.5 LB-FT 154	157 LB-FT 264	60

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
72 dBA	82 dBA	4.9 LB-FT^2	25 LB-FT^2	15 SEC.	2	625 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	EXP PROOF CL I GR C&D CL II GR F&G T3B	FALSE	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL 6312	BALL 6311	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
TSTATS (N/C)	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
- FT-LB NONE V NONE Hz

* N O T E S *

DATE: 06/21/2017 03:53:55 AM
FORM 3531 REV.3 02/07/99

** Subject to change without notice.