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Explosion Proof Motors

Model No: 445TSTGN16531
Catalog No: U084A

Explosion Proof Motor, 150 & 125 HP, 3 Ph, 60 & 50 Hz, 460 & 380 V, 1800 RPM, 445TS Frame, EPFC

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Product Information Packet: Model No: 445TSTGN16531, Catalog No: U084A Explosion Proof Motor, 150 & 125 HP, 3 Ph, 60 & 50 Hz, 460 & 380 V, 1800 RPM, 445TS Frame, EPFC

Nameplate Specifications

Phase	**3**	Output HP	**150 & 125 Hp**
Output KW	**112.0 & 93.0 kW**	Voltage	**460 & 380 V**
Speed	**1785 & 1485 r/min**	Synchronous RPM	**1800 & 1500 r/min**
Service Factor	**1.15 & 1.15**	Frame	**445TS**
Enclosure	**Explosion Proof Fan cooled**	Thermal Protection	**Thermostat**
Efficiency	**95.8 & 95.8 %**	Ambient Temperature	**40 °C**
Frequency	**60 & 50 Hz**	Current	**172 & 170 A**
Power Factor	**85**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6313**
Opp Drive End Bearing Size	**6313**	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 T3B**		

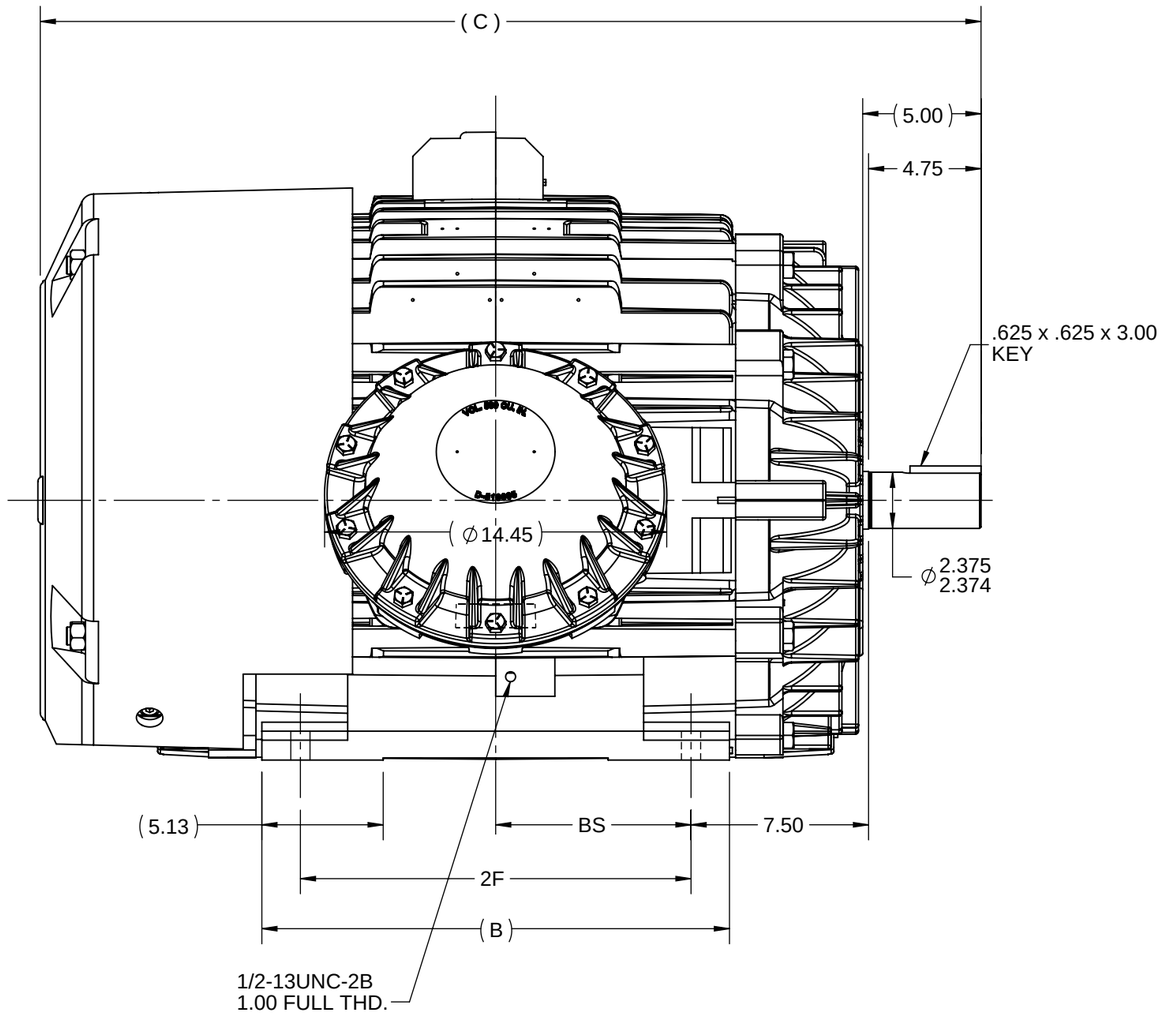
Technical Specifications

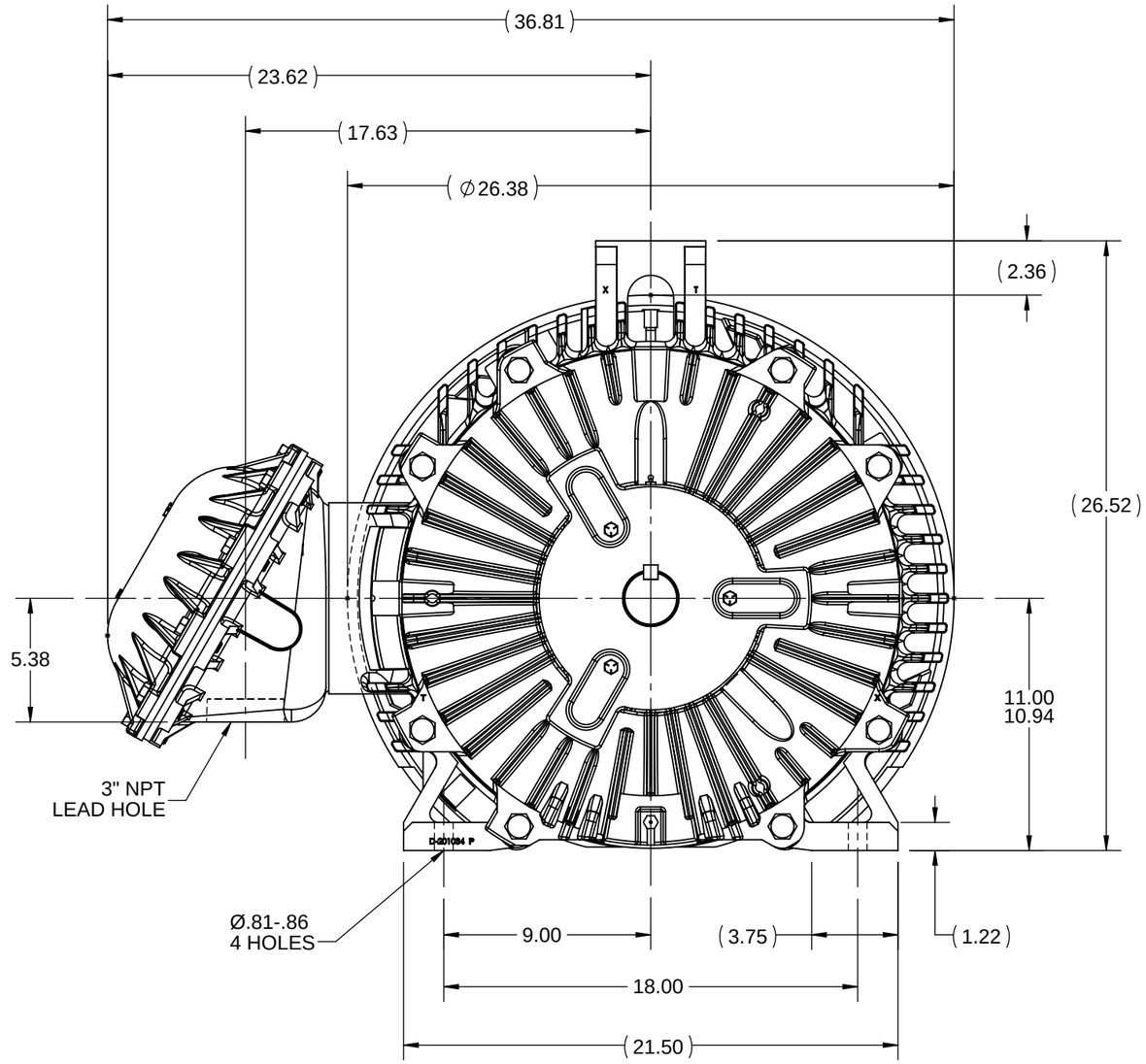
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**4**	Rotation	**Reversible**
Resistance Main	**.0275 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**TS**	Overall Length	**39.59 in**
Frame Length	**20.25 in**	Shaft Diameter	**2 3/8 in**
Shaft Extension	**5 in**	Assembly/Box Mounting	**F1 Only**
Inverter Load	**Constant 10:1**		

Drawings

Connection Drawing	**A-EE7300S**	Outline Drawing	**B-SS515918-2025**

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

DASH	FRAME	B	C	2F	BS	
1825	444TS	17.75	37.59	14.50	7.25	
2025	445TS	19.75	39.59	16.50	8.25	

DRAWING REVISION	REVISION BY	REV DATE/© DATE
D	SV	05/28/2026
REQUEST NUMBER	APPROVED BY	DATE
CR-0026424	RMS	05/28/2026

REQUEST NUMBER DESCRIPTION
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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	
MH	
DATE	
01-15-1997	
APPROVED BY	
JL	
DATE	
02-06-1997	
REFERENCE	

THIRD ANGLE PROJECTION

marathon™

DESCRIPTION
OUTLINE
444/445TS FR. - EXP PR - STD. - TEFC - TGN

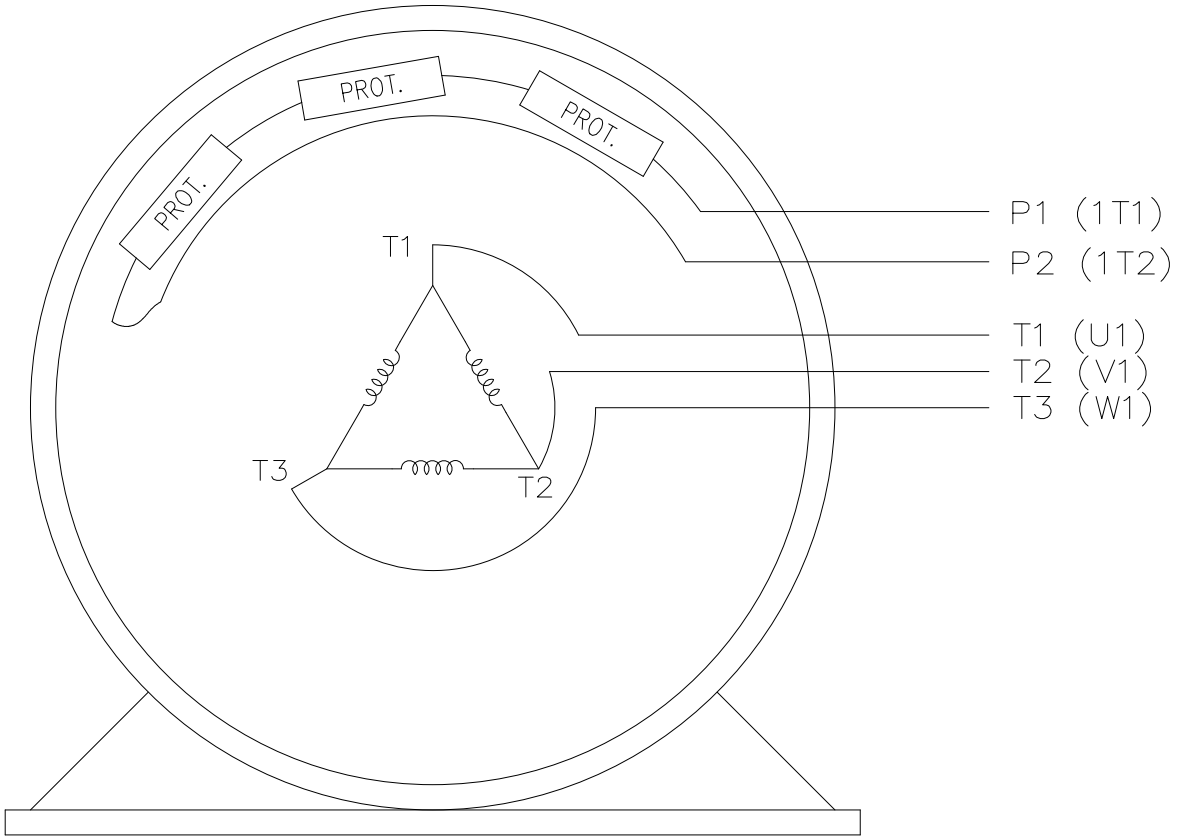
MATERIAL | PROCESS/FINISH

SIZE B | DRAWING NUMBER SS515918 | SHEET 1 OF 1

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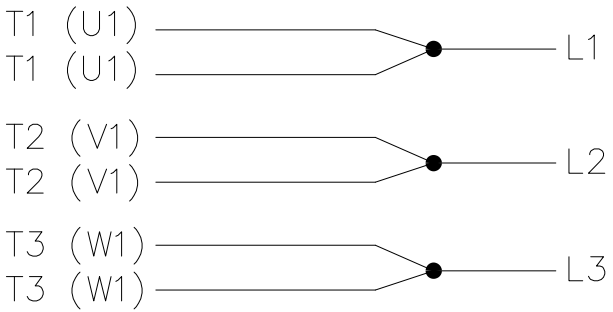
THREE PHASE – SINGLE VOLTAGE MOTOR

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS



VIEW OF TERMINAL END

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



A–9806 DECAL

DRAWING REVISION	REVISION BY	REV DATE/ © DATE
G	SB	08/04/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0023654	SBD	08/04/2025

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PRIMARY DIMENSIONS ARE INCH
mm DIMENSIONS IN [BRACKETS]
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DATE	12/15/1999
APPROVED BY	DJK
DATE	12/15/1999
REFERENCE	
THIRD ANGLE PROJECTION	

marathon™

DESCRIPTION
CONNECTION DIAGRAM-EXTERNAL
SINGLE VOLTAGE 3Ø MOTOR

MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
A	EE7300S	1 OF 1

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Data Sheet

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

marathon® electric

445TSTGN16531

Submittal

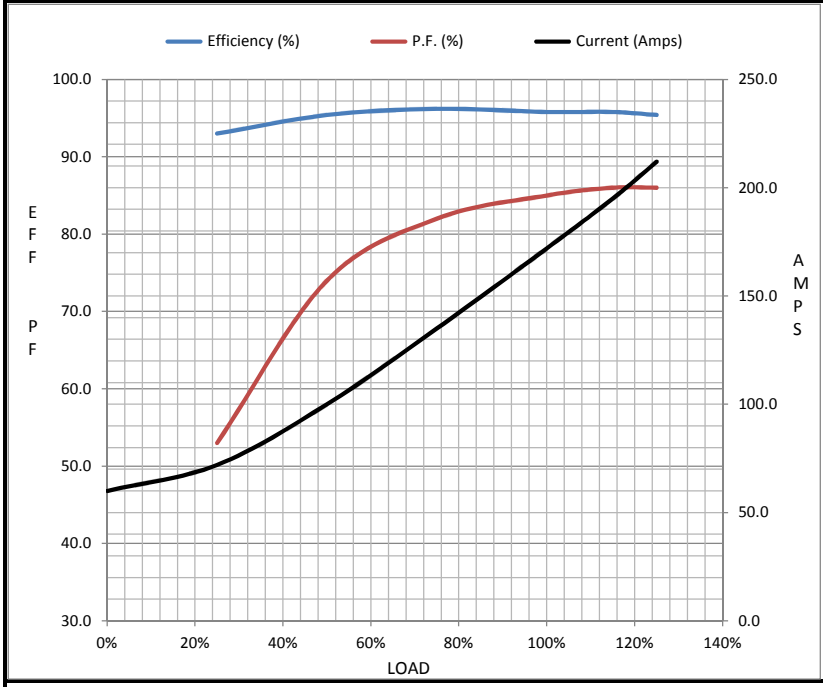
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	60.0	72.0	100	135	172	195	212	1,085	
Torque (ft-lb)	0.00	110	220	330	441	508	553	800	
RPM	1800	1796	1792	1790	1785	1,782	1780	0	
Efficiency (%)		93.0	95.4	96.2	95.8	95.8	95.4		
P.F. (%)	4.5	53.0	74.0	82.0	85.0	86.0	86.0	28.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1725	1785	1800
Current (Amps)	1,085	950	600	172	60.0
Torque (ft-lb)	800	775	1,150	441	0.00



Information Block

HP	150.0
Sync. RPM	1800
Frame	445
Enclosure	TEFC
Construction	TFN
Voltage	460#380 V
Frequency	60 Hz
Design	A
LR Code letter	G
Service Factor	1.15
Temp Rise @ FL	70 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	47.0 Lb-Ft²
Ref Wdg	T4454127 NONE
Sound Pressure @ 1M	75 dBA
VFD Rating	CONSTANT 10:1
Outline Dwg	B-SS515918-2025
Conn. Diag	A-EE7300S

Additional Specifications:

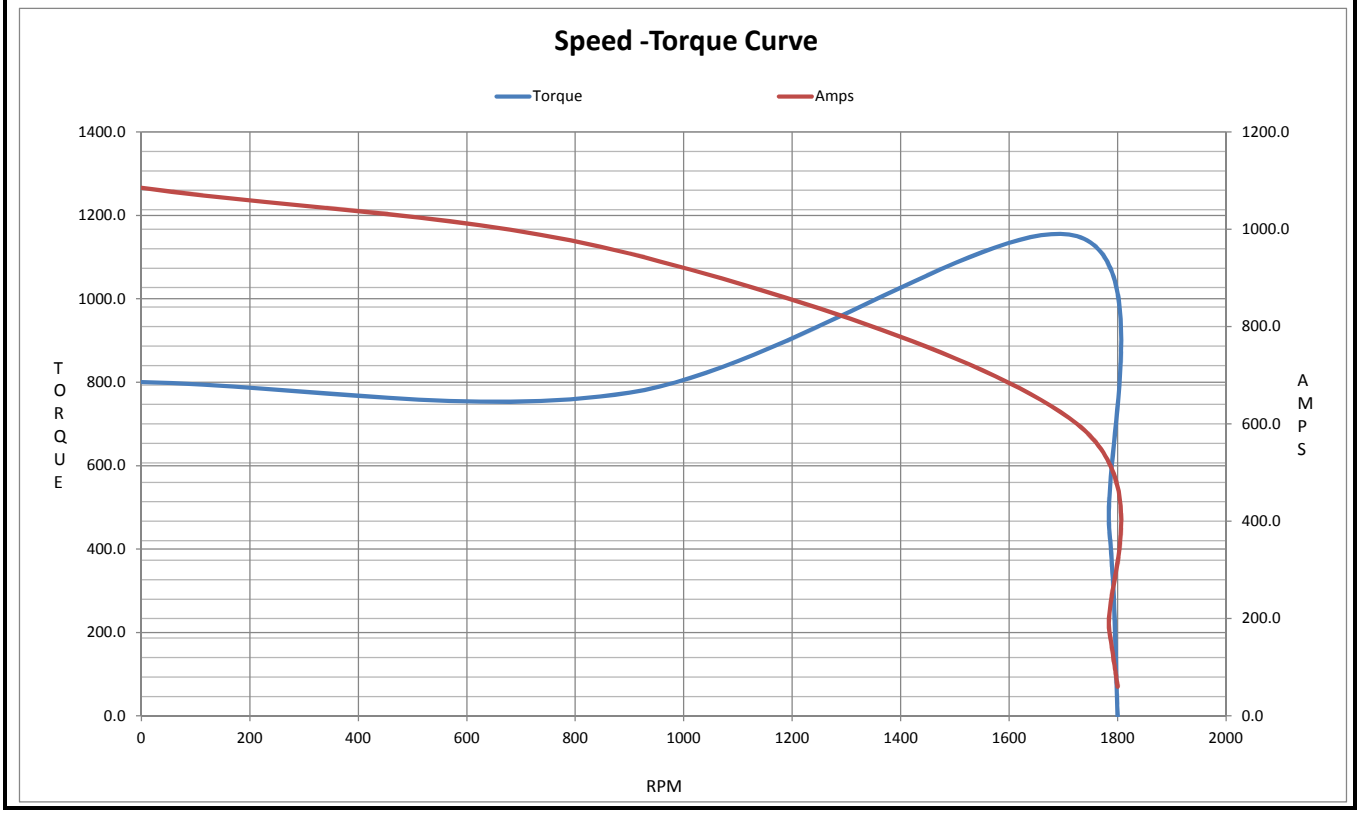
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365THFS8036

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0210	0.0120	0.1680	0.1590	4.4090

Speed -Torque Curve



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CERTIFICATION DATA SHEET

Model#:	445TSTGN16531 AA	**WINDING#:**	T4454127 NONE 1
CONN. DIAGRAM:	A-EE7300S	**ASSEMBLY:**	F1 ONLY
OUTLINE:	B-SS515918-2025		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
150&125	112&93	1800	1785&1485	445TS	EPFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	460#380	172&170	LINE OR INVERTER	CONTINUOUS	F1	1.15/1.15	40	3300

FULL LOAD EFF: 95.8&95.8	3/4 LOAD EFF: 96.2	1/2 LOAD EFF: 95.4	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 85&86	3/4 LOAD PF: 82	1/2 LOAD PF: 74	95.4	SQ CAGE INV RATED	60

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
441 LB-FT	1085	800 LB-FT 181	1150 LB-FT 261	65

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
75 dBA	85 dBA	47 LB-FT^2	1000 LB-FT^2	25 SEC.	2	2050 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 6313	BALL 6313	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: 1.5 X BASE SPEED

ENCODER: NONE
NONE NONE
NONE NONE PPR

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

* NOTES *

DATE: 06/21/2017 05:36:59 AM
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