marathon®

Explosion Proof Motors

Model No: 449TTGS16537
Catalog No: E591

Explosion Proof Motor, 250 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 449T Frame, EPFC

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Product Information Packet: Model No: 449TTGS16537, Catalog No: E591 Explosion Proof Motor, 250 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 449T Frame, EPFC

Nameplate Specifications

Phase	**3**	Output HP	**250 Hp**
Output KW	**187.0 kW**	Voltage	**460 V**
Speed	**1785 r/min**	Synchronous RPM	**1800 r/min**
Service Factor	**1.15**	Frame	**449T**
Enclosure	**Explosion Proof Fan cooled**	Thermal Protection	**Thermostat**
Efficiency	**96.5 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**285.0 A**
Power Factor	**86**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**NU319**
Opp Drive End Bearing Size	**6318**	UL	**UL Listed; also, UL Certified for Canada**
CSA	**N**	CE	**N**
IP Code	**54**	Number of Speeds	**1**
Hazardous Location	**DIV 1 EXP PROOF CL I GR CD CL II GR FG T3B**		

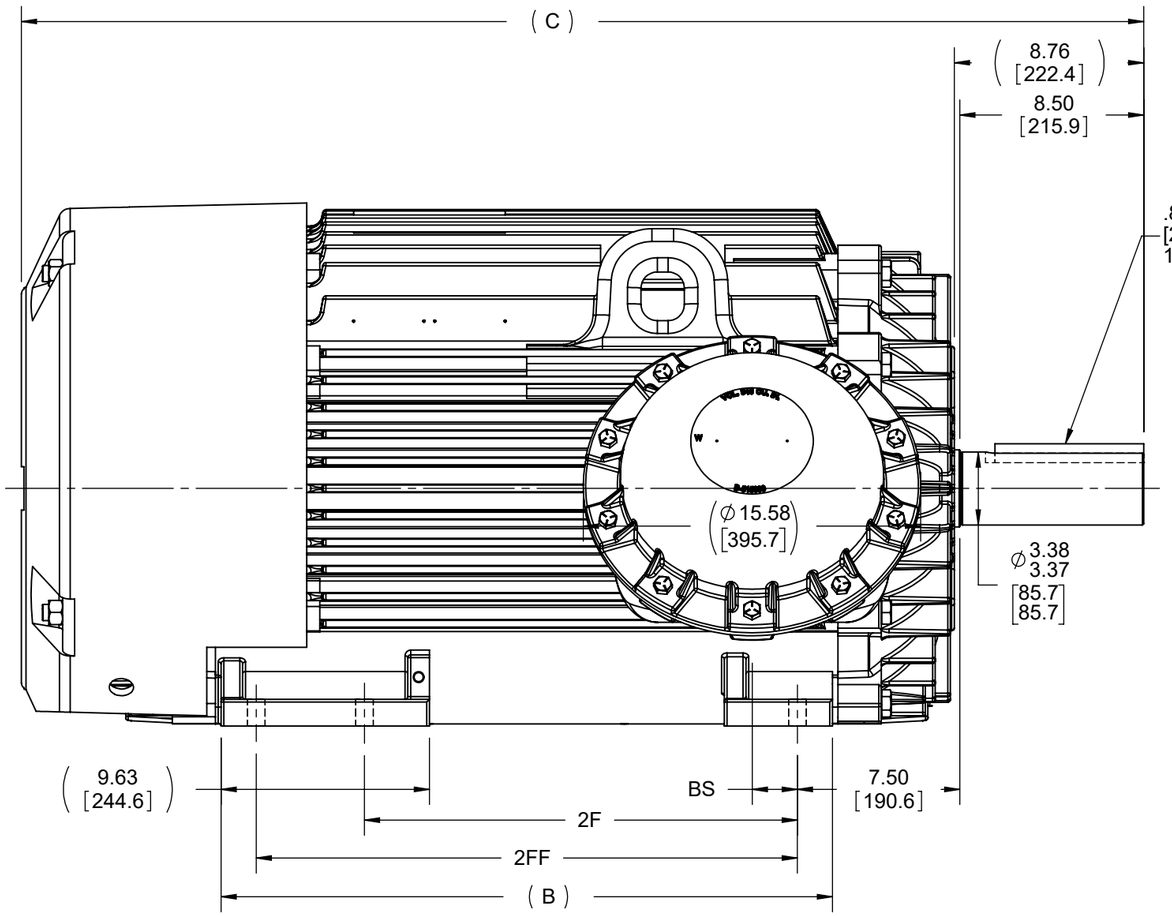
Technical Specifications

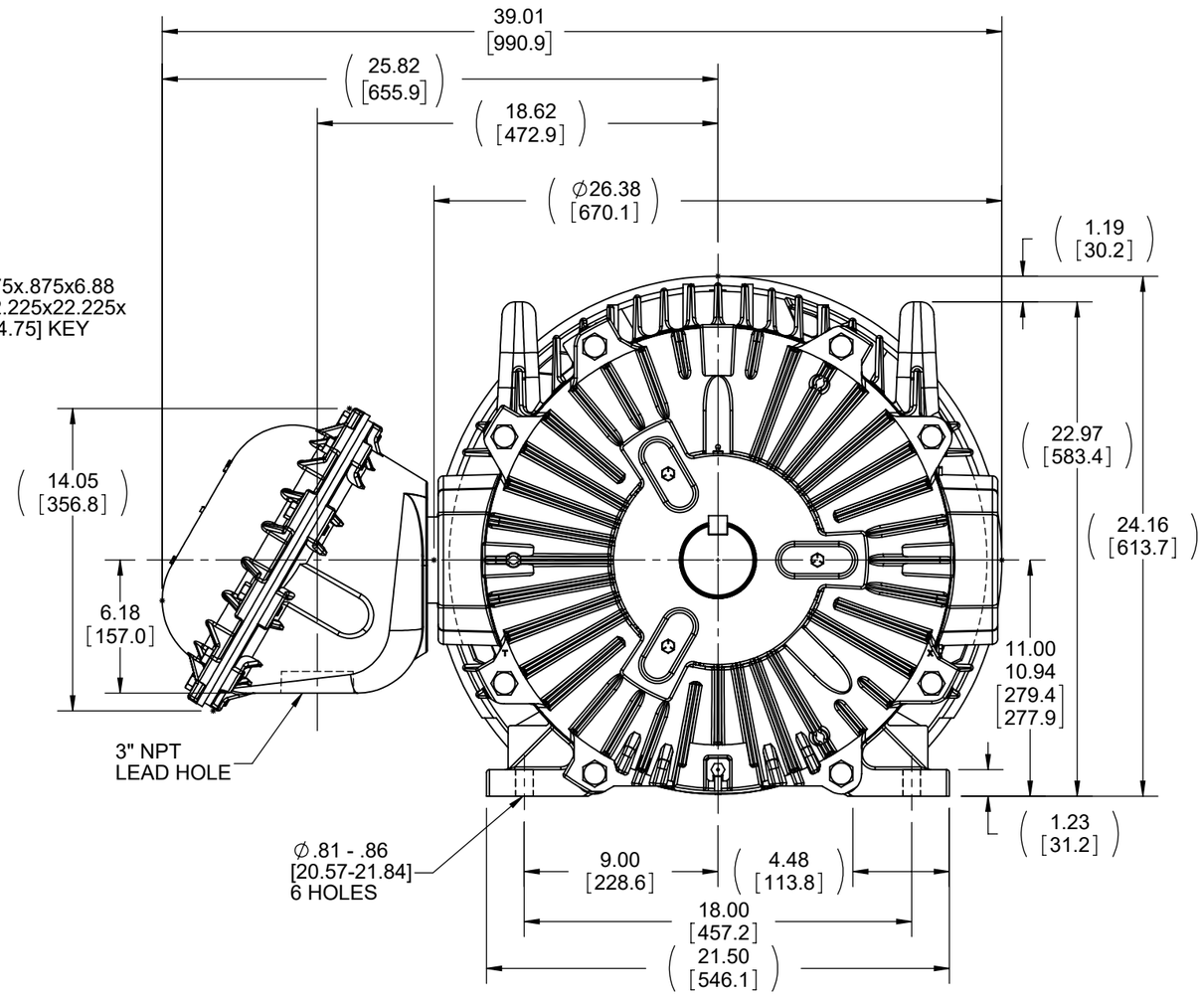
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**4**	Rotation	**Reversible**
Resistance Main	**.0107 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Roller**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**T**	Overall Length	**51.85 in**
Frame Length	**28.75 in**	Shaft Diameter	**3 3/8 in**
Shaft Extension	**8.76 in**	Assembly/Box Mounting	**F1 Only**
Inverter Load	**Constant 10:1**		

Drawings

Connection Drawing	**A-EE7300T**	Outline Drawing	**B-SS515578-2875**

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NOTES:
1. CONDUIT BOX CAN ONLY BE ROTATED CLOCKWISE UP TO 270° FROM ITS ORIGINAL POSITION.
2. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	B	C	2F	2FF	BS
2875	447T	28.25 [717.55]	51.85 [1316.99]	20.00 [508.00]	------	2.09 [53.09]
2875	449T	28.25 [717.55]	51.85 [1316.99]	------	25.00 [635.00]	2.09 [53.09]

DRAWING REVISION	REVISION BY	REV DATE/© DATE
D	SB	07/30/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0023600	SBD	07/30/2025

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	SMC
DATE	04-15-1996
APPROVED BY	JPN
DATE	04-19-1996
REFERENCE	
THIRD ANGLE PROJECTION	

marathon™

DESCRIPTION
OUTLINE
447/449T FR. -EXP. PR.- STD.

MATERIAL | PROCESS/FINISH

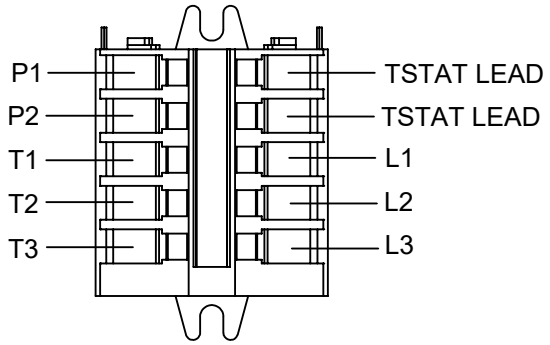
SIZE	DRAWING NUMBER	SHEET
B	SS515578	1 OF 1

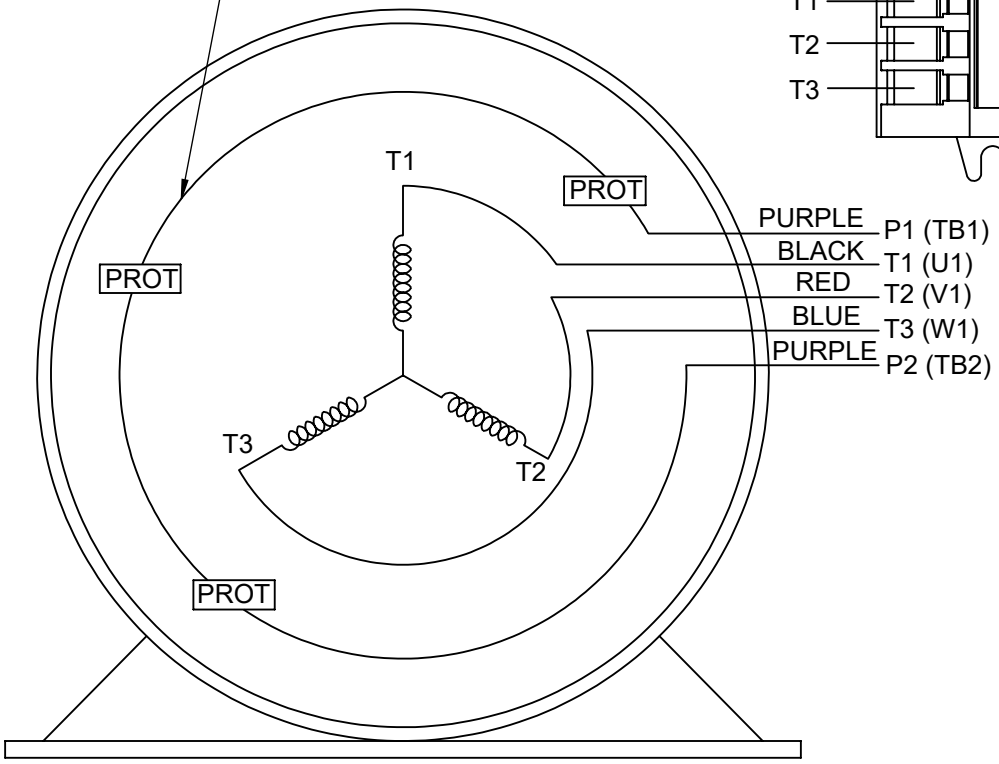
THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'

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

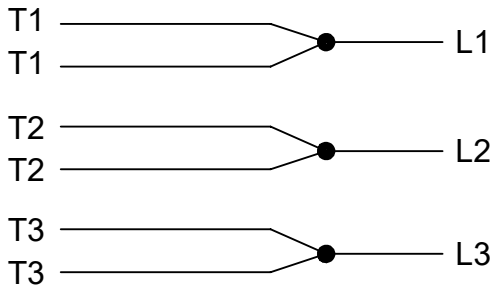




VIEW OF TERMINAL END

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

449TTGS16537

Submittal

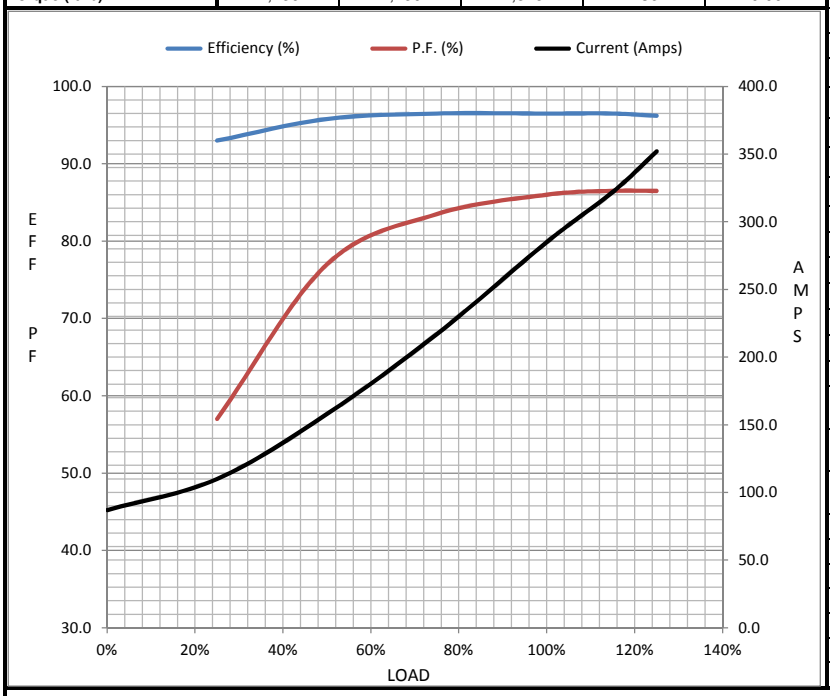
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	87.0	110	158	217	285	322	352	1,825	
Torque (ft-lb)	0.00	183	366	550	736	846	920	1,450	
RPM	1800	1796	1794	1790	1785	1,782	1780	0	
Efficiency (%)		93.0	95.8	96.5	96.5	96.5	96.2		
P.F. (%)	4.5	57.0	77.0	83.5	86.0	86.5	86.5	31.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1725	1785	1800
Current (Amps)	1,825	1,725	1,100	285	87.0
Torque (ft-lb)	1,450	1,250	1,825	736	0.00



Information Block

HP	250.0
Sync. RPM	1800
Frame	449
Enclosure	TEFC
Construction	TFN
Voltage	460 V
Frequency	60 Hz
Design	A
LR Code letter	G
Service Factor	1.15
Temp Rise @ FL	65 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	81.0 Lb-Ft²
Ref Wdg	T449446 NONE
Sound Pressure @ 1M	80 dBA
VFD Rating	CONSTANT 10:1
Outline Dwg	B-SS515578-2875
Conn. Diag	A-EE7300T

Additional Specifications:

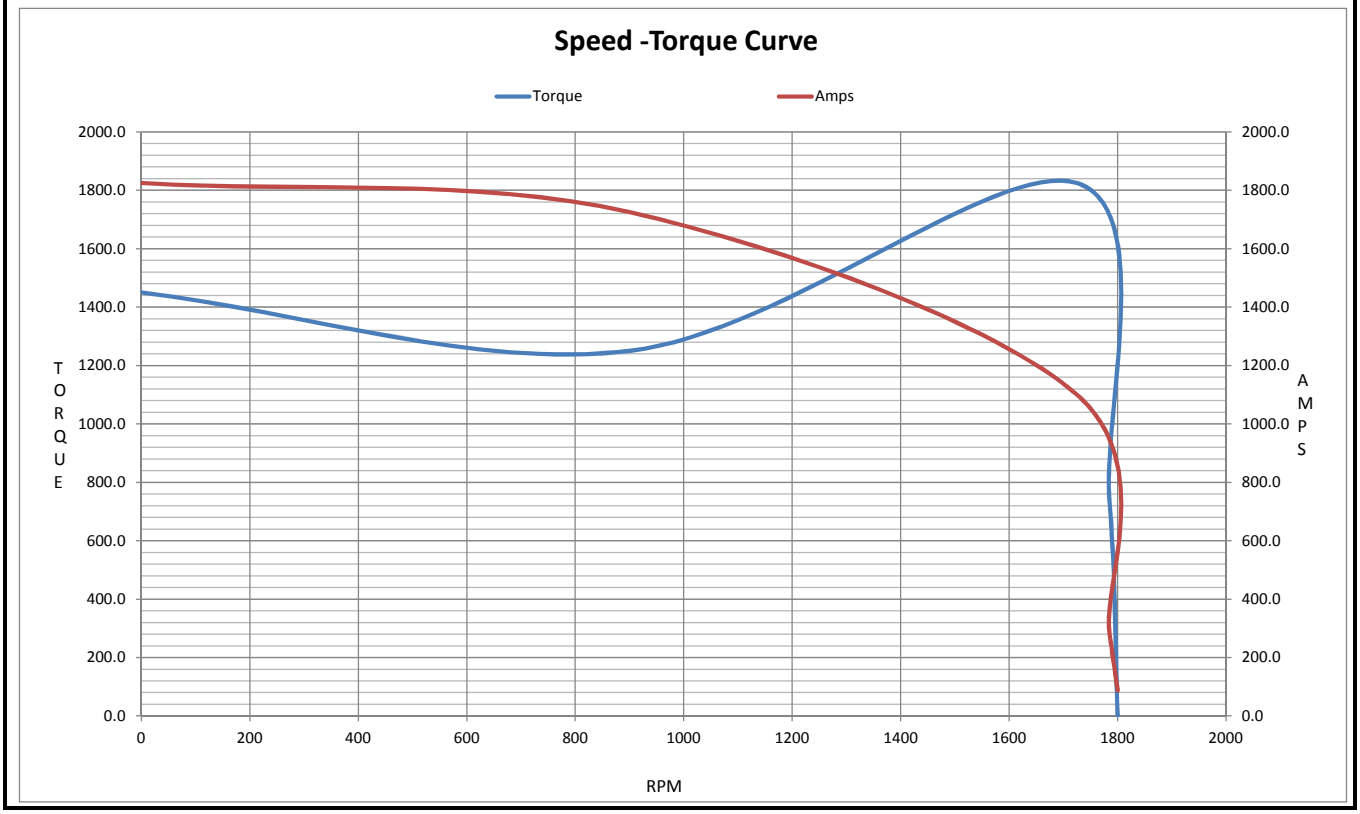
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365THFS8036

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0070	0.0070	0.0920	0.1300	2.9720

Speed -Torque Curve



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CERTIFICATION DATA SHEET

Model#:	449TTGS16537 AA	**WINDING#:**	T449446 NONE 3
CONN. DIAGRAM:	A-EE7300T	**ASSEMBLY:**	F1 ONLY
OUTLINE:	B-SS515578-2875		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
250	187	1800	1785	447/449T	EPFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	460	285	LINE OR INVERTER	CONTINUOUS	F1	1.15	40	3300

FULL LOAD EFF: 96.5	3/4 LOAD EFF: 96.5	1/2 LOAD EFF: 95.8	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 86	3/4 LOAD PF: 83.5	1/2 LOAD PF: 77	96.2	SQ CAGE INV RATED	87

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
736 LB-FT	1825	1450 LB-FT 197	1825 LB-FT 248	65

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
80 dBA	90 dBA	81 LB-FT^2	2000 LB-FT^2	25 SEC.	1	2700 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						
ROLLER NU319	BALL 6318	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			
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

* NOTES *

DATE: 06/21/2017 07:27:01 AM
FORM 3531 REV.3 02/07/99
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