marathon®

Explosion Proof Motors

Model No: 445TTGN16544
Catalog No: U037A

Explosion Proof Motor, 150 HP, 3 Ph, 60 Hz, 575 V, 1800 RPM, 445T Frame, EPFC

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Product Information Packet: Model No: 445TTGN16544, Catalog No: U037A Explosion Proof Motor, 150 HP, 3 Ph, 60 Hz, 575 V, 1800 RPM, 445T Frame, EPFC

Nameplate Specifications

Phase	**3**	Output HP	**150 Hp**
Output KW	**112.0 kW**	Voltage	**575 V**
Speed	**1785 r/min**	Synchronous RPM	**1800 r/min**
Service Factor	**1.15**	Frame	**445T**
Enclosure	**Explosion Proof Fan cooled**	Thermal Protection	**Thermostat**
Efficiency	**95.8 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**138.0 A**
Power Factor	**85**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6318**
Opp Drive End Bearing Size	**6316**	UL	**Listed**
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**		

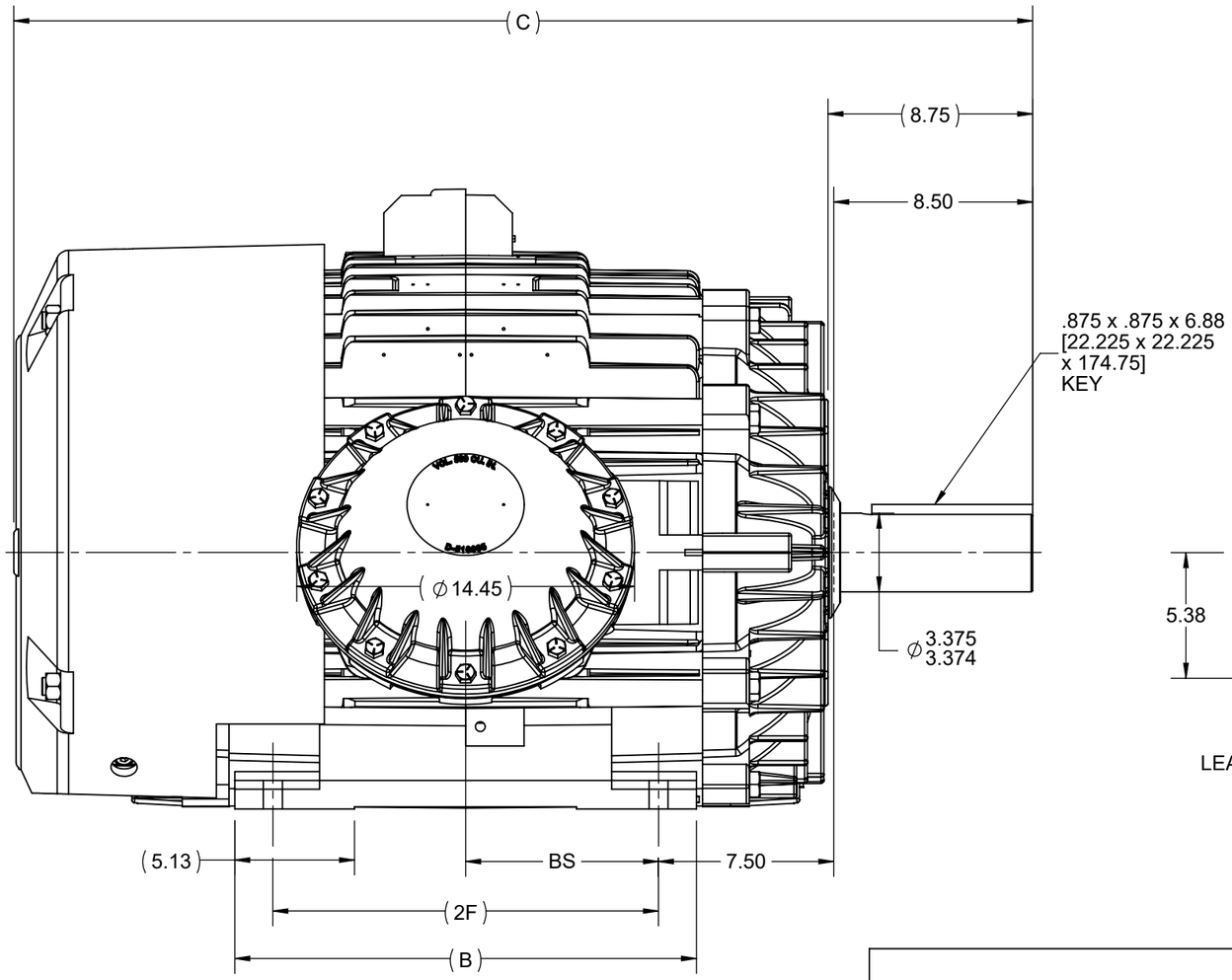
Technical Specifications

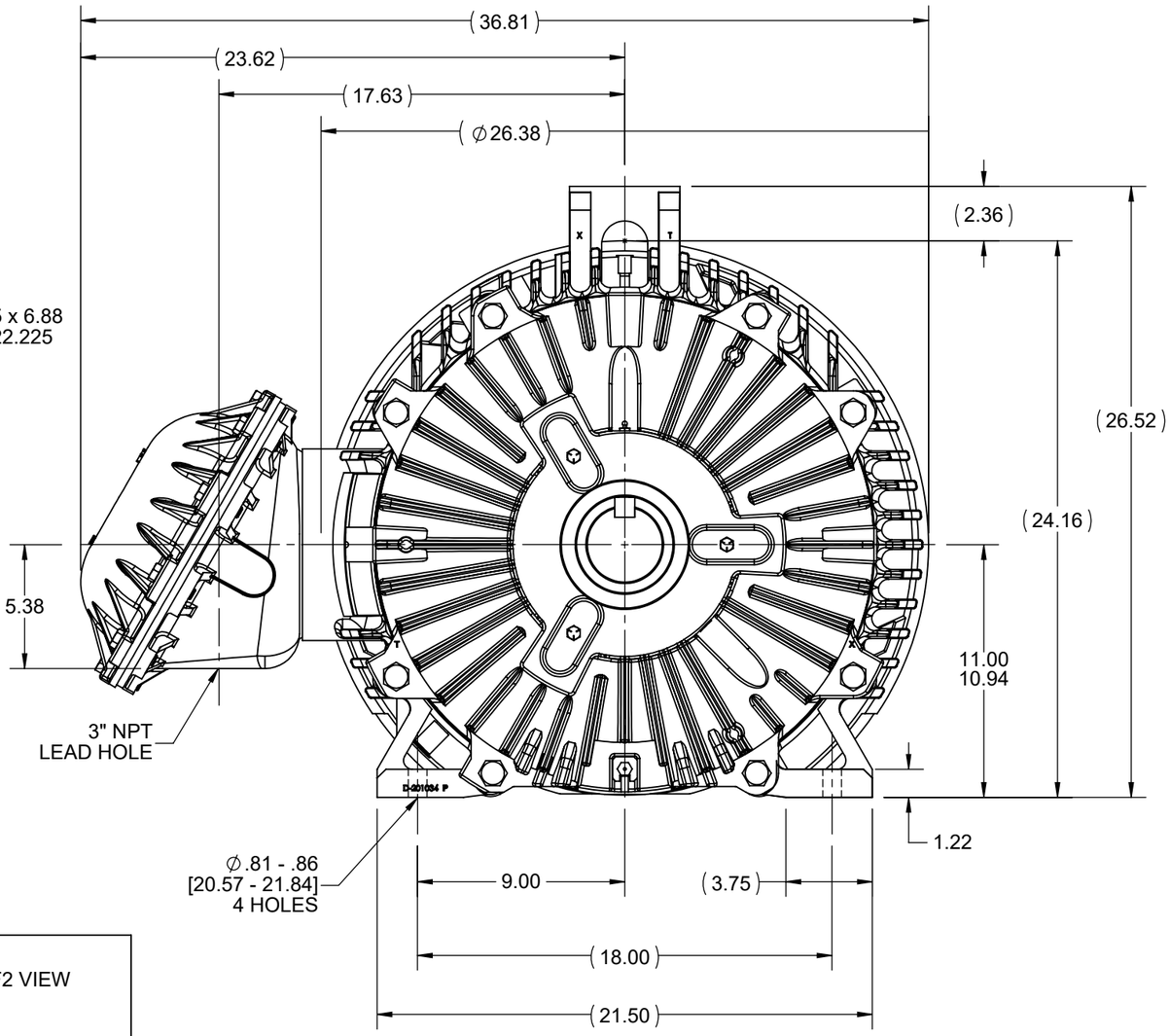
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**4**	Rotation	**Reversible**
Resistance Main	**.0275 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**T**	Overall Length	**43.35 in**
Frame Length	**20.25 in**	Shaft Diameter	**3 3/8 in**
Shaft Extension	**8.75 in**	Assembly/Box Mounting	**F1 Only**
Inverter Load	**Constant 2:1/Variable 10:1**		

Drawings

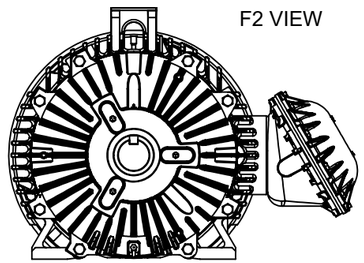
Connection Drawing	**EE7300S**	Outline Drawing	**SS515577-2025**

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NOTES:
1. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.



DASH	FRAME	B	C	2F	BS
1825	444T	17.75	41.59	14.50	7.25
2025	445T	19.75	43.59	16.50	8.25

DRAWING REVISION	REVISION BY	REV DATE/© DATE
F	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	SMC
DATE	04-15-1996
APPROVED BY	JPN
DATE	04-19-1996
REFERENCE	
THIRD ANGLE PROJECTION	

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DESCRIPTION
OUTLINE
444/445T FR. - EXPLOSION PROOF

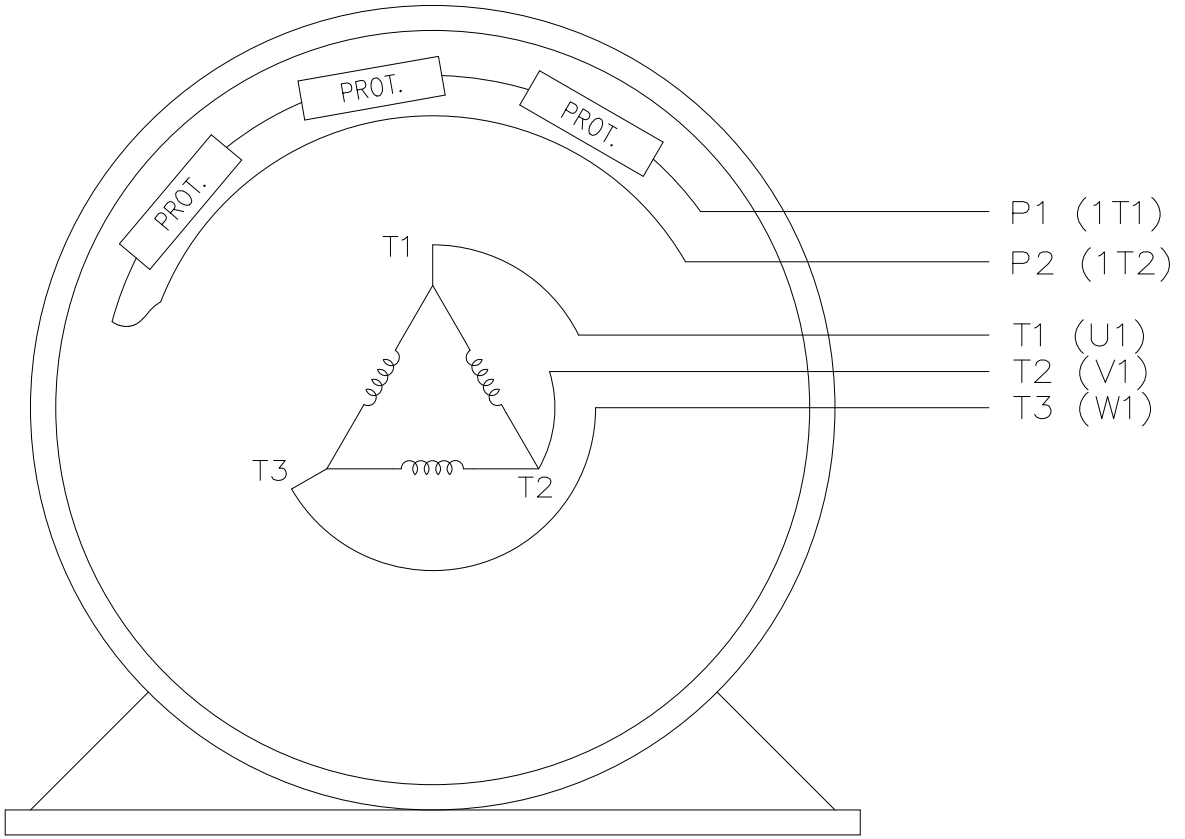
MATERIAL | PROCESS/FINISH

SIZE B | DRAWING NUMBER SS515577 | SHEET 1 OF 1

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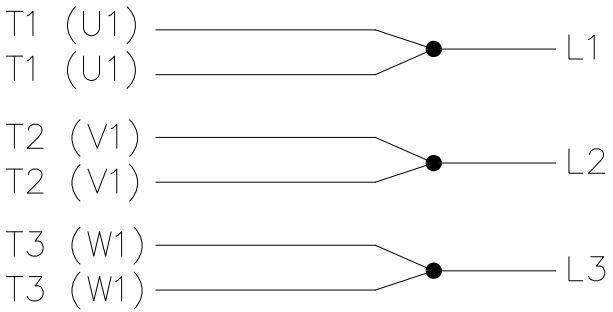
THREE PHASE – SINGLE VOLTAGE MOTOR

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]
ARE FOR REFERENCE ONLY

DRAWN BY	KL
DATE	12/15/1999
APPROVED BY	DJK
DATE	12/15/1999
REFERENCE	
THIRD ANGLE PROJECTION	

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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: 6/20/2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon electric

445TTGN16544

Submittal

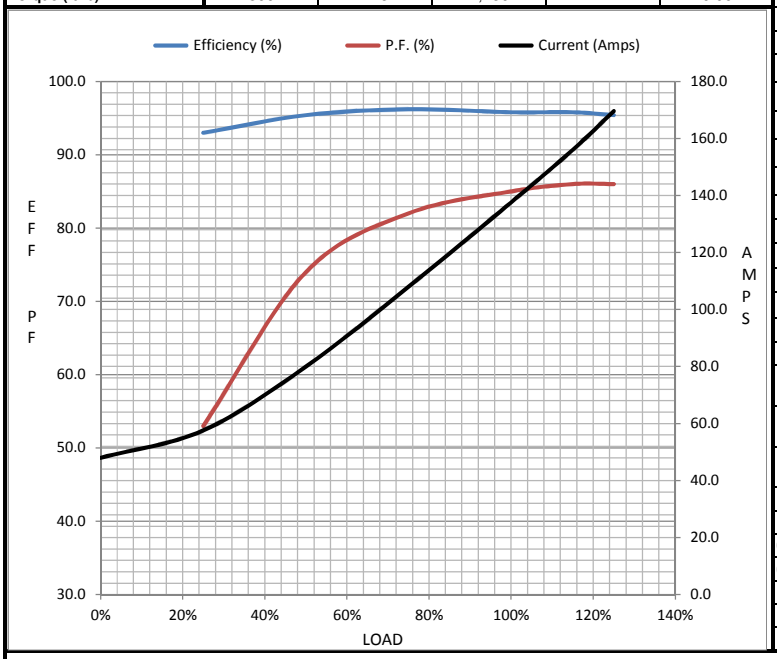
Data @ 575 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	48.0	57.6	80.0	108	138	156	170	868	
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)	868	760	480	138	48.0
Torque (ft-lb)	800	775	1,150	441	0.00

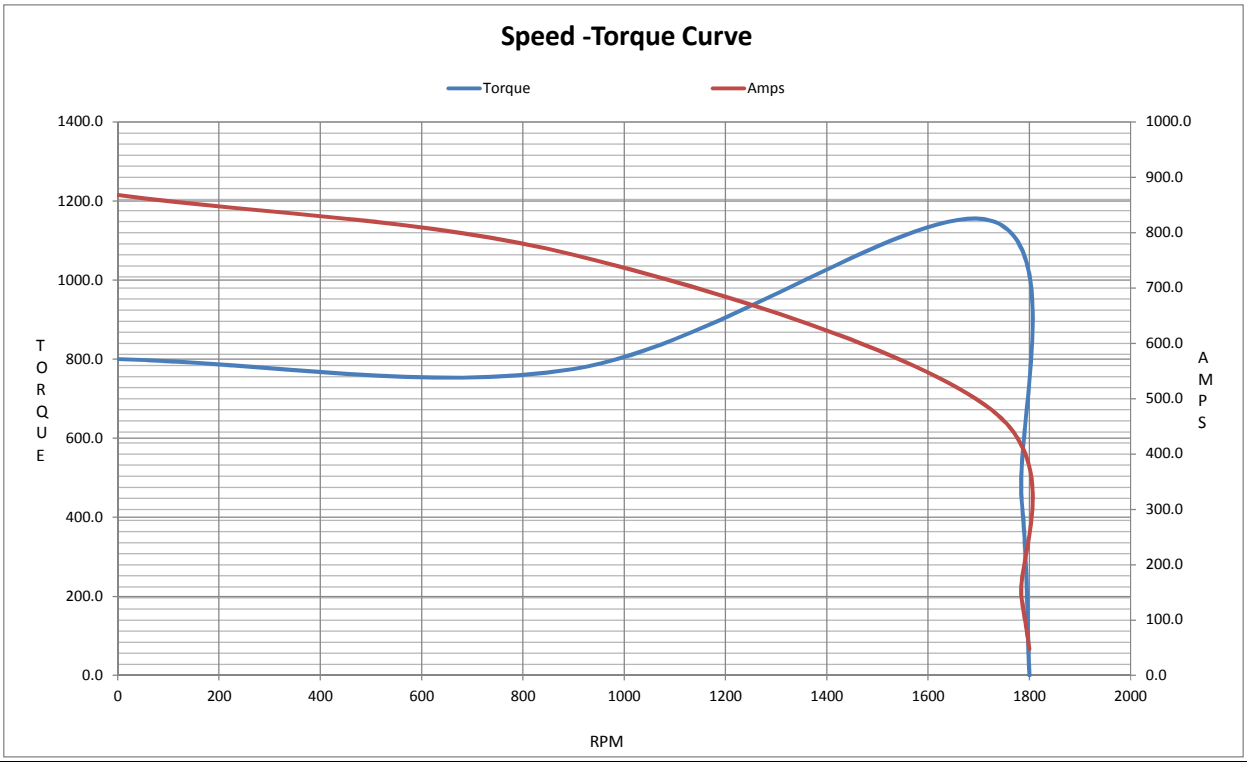


Information Block

HP	150.0
Sync. RPM	1800
Frame	445
Enclosure	TEFC
Construction	TFN
Voltage	575 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-SS515577-2025
Conn. Diag	A-EE7300S
Additional Specifications:	
0	
0	

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0320	0.0190	0.2630	0.2480	6.8900



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CERTIFICATION DATA SHEET

Model#:	445TTGN16544 AA	**WINDING#:**	T4454127 NONE 3
CONN. DIAGRAM:	A-EE7300S	**ASSEMBLY:**	F1 ONLY
OUTLINE:	B-SS515577-2025		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
150	112	1800	1785	445T	EPFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	575	138	LINE OR INVERTER	CONTINUOUS	F1	1.15	40	3300

FULL LOAD EFF: 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	3/4 LOAD PF: 82	1/2 LOAD PF: 74	95.4	SQ CAGE INV RATED	48

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
441 LB-FT	868	800 LB-FT 181	1150 LB-FT 261	70

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 6318	BALL 6316	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
NONE FT-LB NONE V NONE Hz

* NOTES *

DATE: 06/21/2017 06:08:21 AM
FORM 3531 REV.3 02/07/99
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