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Severe Duty Motors

Model No: 449TSHFCD9003
Catalog No: W624A

Severe Duty Motor, 250 HP, 3 Ph, 60 Hz, 460 V, 3600 RPM, 447/449TS Frame, TEFC

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Product Information Packet: Model No: 449TSHFCD9003, Catalog No: W624A Severe Duty Motor, 250 HP, 3 Ph, 60 Hz, 460 V, 3600 RPM, 447/449TS Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**250 Hp**
Output KW	**187.0 kW**	Voltage	**460 V**
Speed	**3580 r/min**	Synchronous RPM	**3600 r/min**
Service Factor	**1.15**	Frame	**447/449TS**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**95.8 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**266.0 A**
Power Factor	**92**	Duty	**Continuous**
Insulation Class	**H**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6314**
Opp Drive End Bearing Size	**6314**	UL	**Listed**
CSA	**Y**	CE	**Y**
IP Code	**56**	Number of Speeds	**1**
Hazardous Location	**DIVISION 2 T2B**		

Technical Specifications

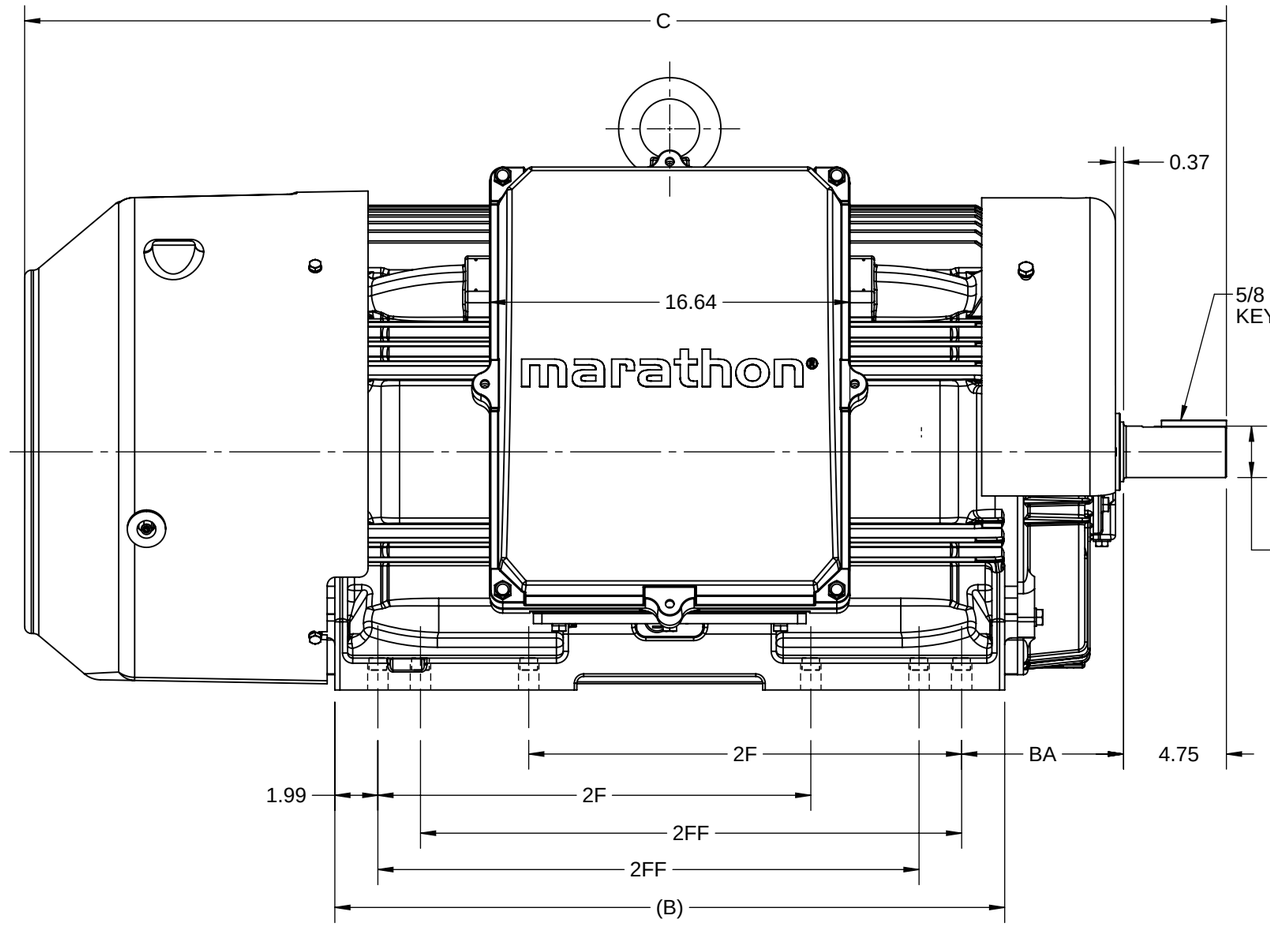
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**2**	Rotation	**Reversible**
Resistance Main	**.0128 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**TS**	Shaft Diameter	**2.375 in**
Assembly/Box Mounting	**F1/F2 Capable**	Inverter Load	**Constant 2:1/Variable 10:1**

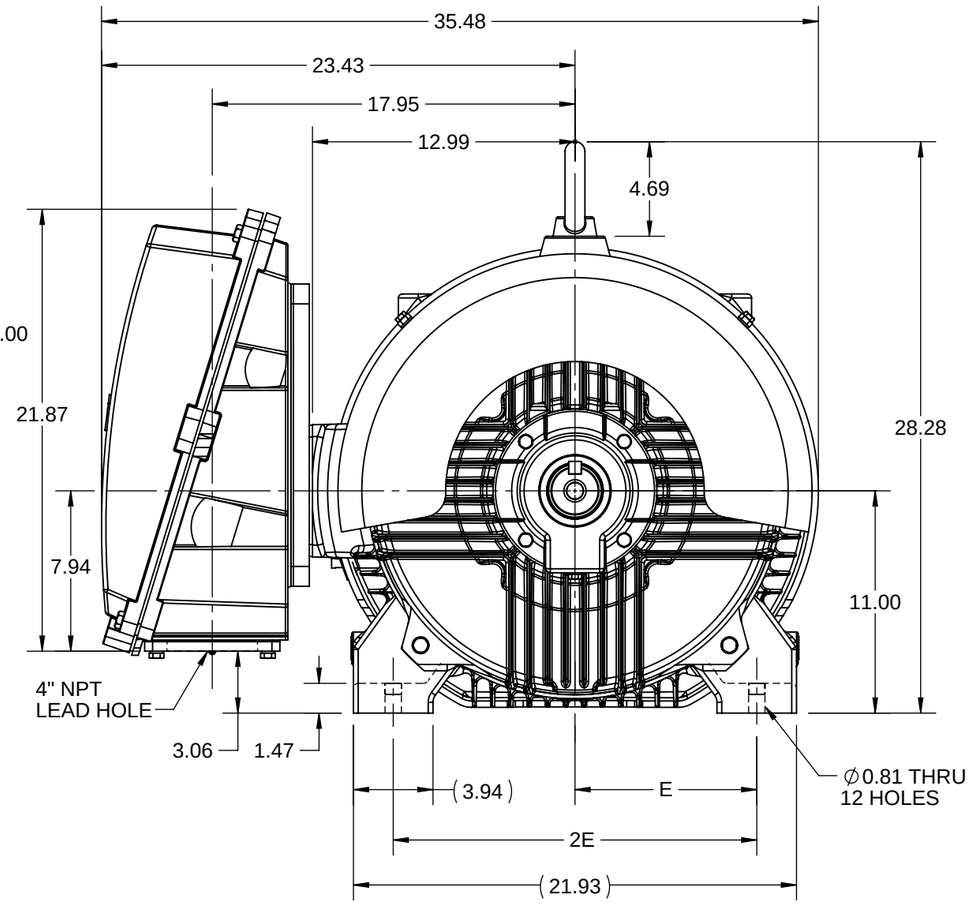
Drawings

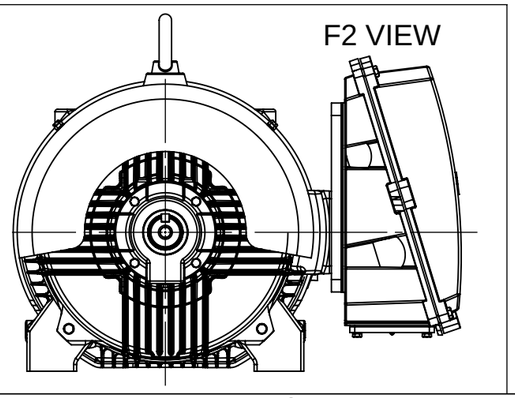
Connection Drawing	**EE7300U**	Outline Drawing	**SS620974**

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B	C	E	2E	2F	2FF	BA	BS	MOUNTING
30.94	55.51	9.00	18.00	20.00	25.00	7.50	13.48	F1 OR F2







DRAWING REVISION	REVISION BY	REV DATE/© DATE
C	SB	05/27/2026
REQUEST NUMBER	APPROVED BY	DATE
CR-0026396	RMS	05/27/2026

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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DATE	05/03/2020
APPROVED BY	SBD
DATE	05/03/2020
REFERENCE	

THIRD ANGLE PROJECTION

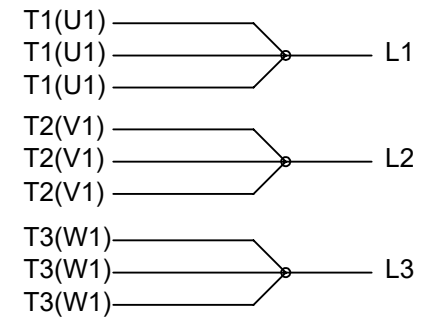
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DESCRIPTION
OUTLINE
447/449TS FR H/O-SD & IEEE841

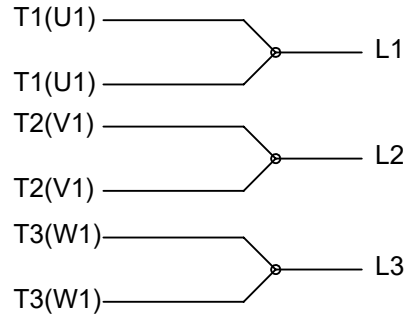
MATERIAL | PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
B	SS620974	1 OF 1

IF MOTOR HAS 9 LEADS

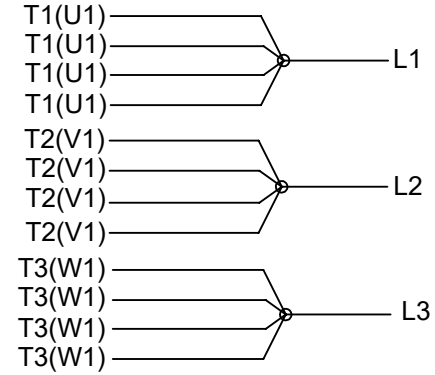


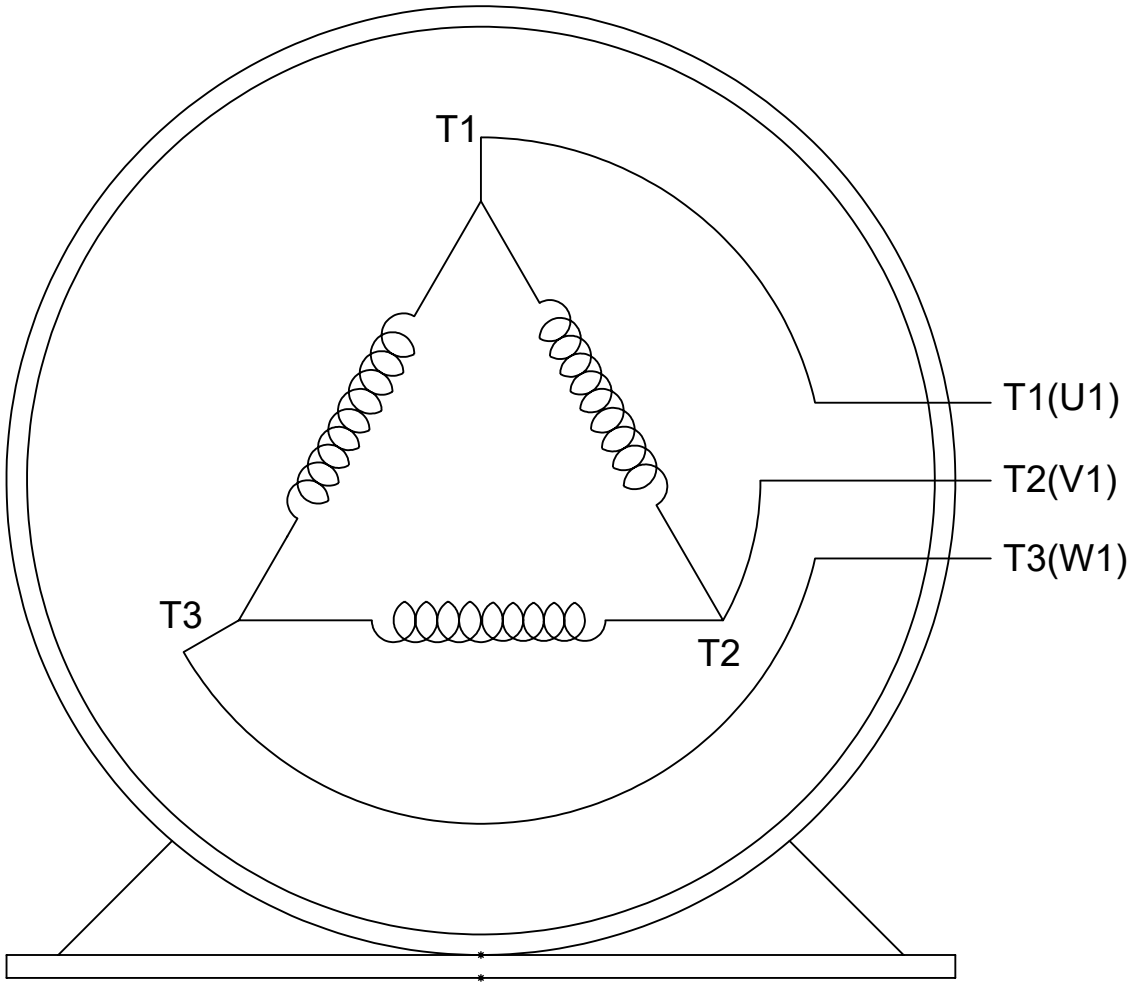
IF MOTOR HAS 6 LEADS



A-9806 DECAL IF CALLED FOR

IF MOTOR HAS 12 LEADS





VIEW OF TERMINAL END

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

REQUEST NUMBER DESCRIPTION
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DRAWN BY	DRS
DATE	09-27-1996
APPROVED BY	GK
DATE	09-30-1996
REFERENCE	
THIRD ANGLE PROJECTION	

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DESCRIPTION
CONN DIAGRAM-EXTERNAL
3Ø SINGLE VOLTAGE

MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
A	EE7300U	1 OF 1

Data Sheet

Date: 6/3/2020
Customer:
Attention:
Submitted by:

marathon® Motors

449TSHFCD9003

Submittal

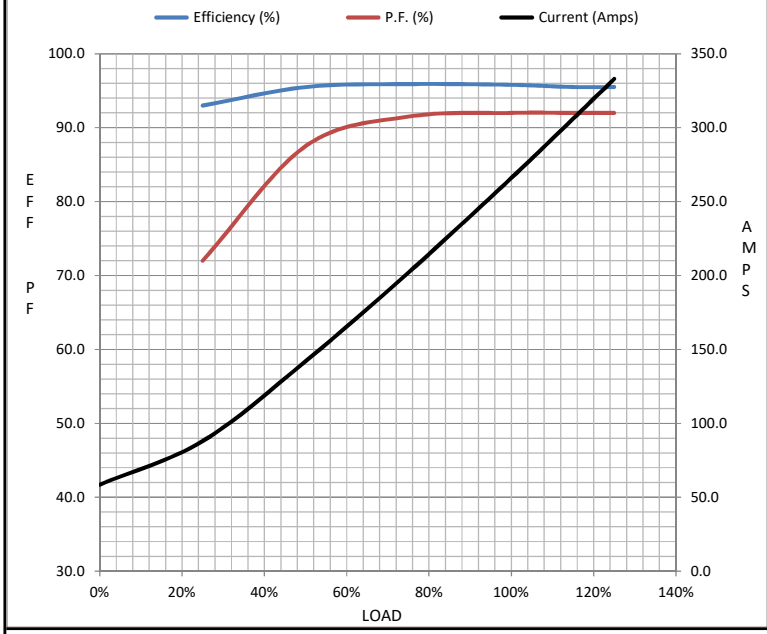
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	58.5	88.0	142	202	266	306	333	1,880	
Torque (ft-lb)	0.00	91.0	183	275	367	422	459	460	
RPM	3600	3595	3590	3585	3580	3,576	3574	0	
Efficiency (%)		93.0	95.5	95.9	95.8	95.5	95.5		
P.F. (%)	7.0	72.0	87.5	91.5	92.0	92.0	92.0	30.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3470	3580	3600
Current (Amps)	1,880	1,520	1,100	266	58.5
Torque (ft-lb)	460	590	956	367	0.00

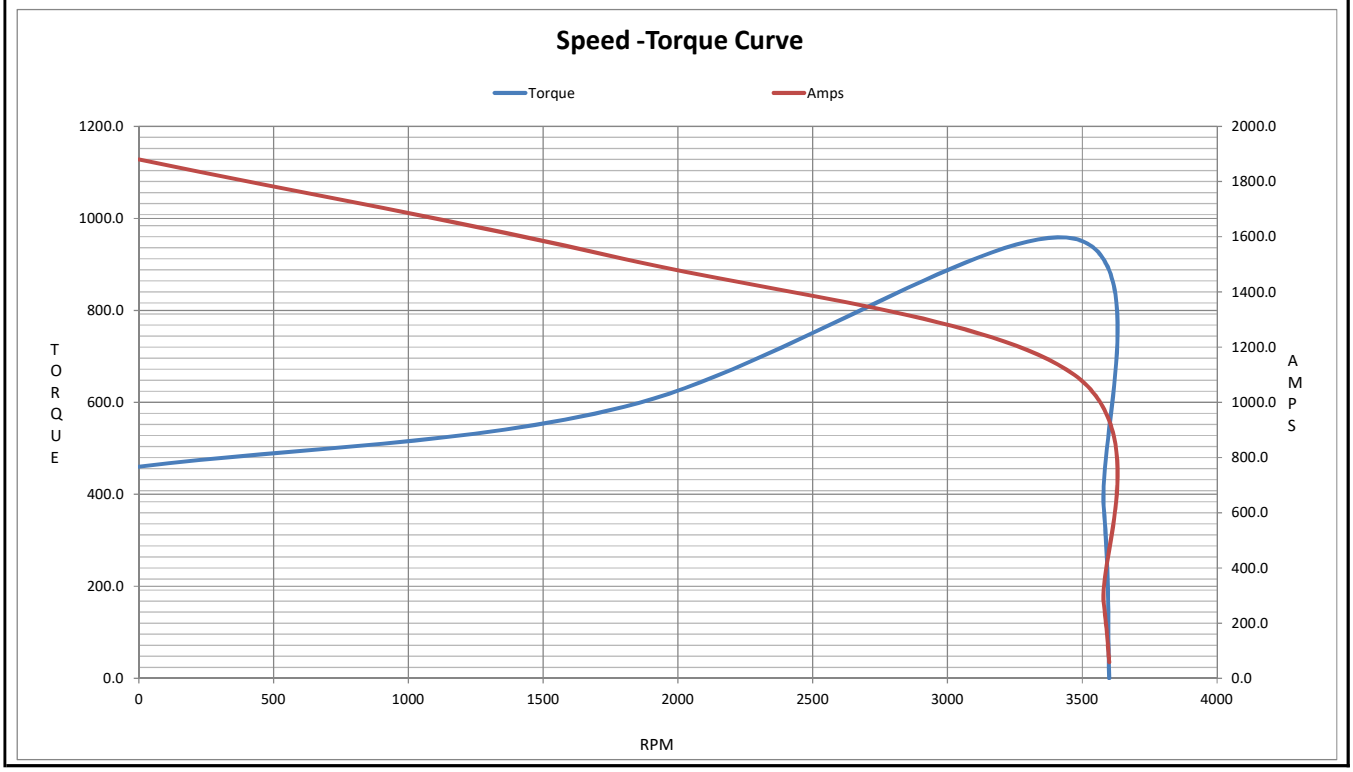


Information Block

HP	250.0	
Sync. RPM	3600	
Frame	160L	
Enclosure	TEFC	
Construction	TFC	
Voltage	460	V
Frequency	60	Hz
Design	N	
LR Code letter	G	
Service Factor	1.15	
Temp Rise @ FL	75	° C
Duty	CONT	
Ambient	40	° C
Elevation	3,300	feet
Rotor/Shaft wk²	48.9	Lb-Ft²
Ref Wdg	HA32802019 NONE	
Sound Pressure @ 1M	85	dBA
VFD Rating	CONSTANT 2:1/VARIABLE 10:1	
Outline Dwg	037898-912	
Conn. Diag	EE7300U	
Additional Specifications:		
0		
0		

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0080	0.0060	0.0660	0.0760	4.4970



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DATA VOLTS: 460

CERTIFICATION DATA SHEET

REFERENCE MODEL #: 449TSHFCD9003
CAT #: W624A

CONN. DIAGRAM: EE7300U
OUTLINE: SS620974
WINDING: HA32802019 NONE 1
MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
250	187	3600	3580	447/449TS	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB(° C)	ELEV.(Ft)
3	60	460	266	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	95.8	3/4 LD EFF	95.9	1/2 LD EFF	95.5	GTD EFF	ELECT. TYPE
F.L. PF	92.0	3/4 LD PF	91.5	1/2 LD PF	87.5	95.4	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)	
367 LB-FT	1,880	460 LB-FT 125%	956 LB-FT 260%	75	

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.	MOTOR WGT
85 dBA	94 dBA	48.9 LB-FT²	150 LB-FT²	20 SEC.	2	2471	LB.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	DIVISION 2 T2B	NO	NONE	BLUE (EPOXY)

BEARINGS DE	BEARINGS ODE	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
BALL 6314	BALL 6314	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
NONE	NOT	NONE	NONE	NONE	FALSE	NA

R1 (ohms/ph)	R2 (ohms/ph)	X1 (ohms/ph)	X2 (ohms/ph)	Xm (ohms/ph)	VIBRATION (in/sec)	
0.008	0.006	0.066	0.076	4.497	0.080	

NOTES
*
*

If Inverter equals NONE, contact factory for further information
INVERTER TORQUE: CONSTANT 2:1/VARIABLE 10:1
INV. HP SPEED RANGE: NONE

ENCODER: NONE
NONE
NONE NONE **PPR**

BRAKE: NONE
NONE NONE
FT-LB: NA
VOLTAGE: NONE **HZ:**

PREPARED BY:
DATE: 6/3/2020

** Subject to change without notice.
FORM: 3531 REV_4 2/27/06