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Severe Duty Motors

Model No: 324TSTFCD6501
Catalog No: E609A

Severe Duty Motor, 40 HP, 3 Ph, 60 Hz, 460 V, 3600 RPM, 324TS Frame, TEFC

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Product Information Packet: Model No: 324TSTFCD6501, Catalog No: E609A Severe Duty Motor, 40 HP, 3 Ph, 60 Hz, 460 V, 3600 RPM, 324TS Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**40 Hp**
Output KW	**30.0 kW**	Voltage	**460 V**
Speed	**3565 r/min**	Synchronous RPM	**3600 r/min**
Service Factor	**1.15**	Frame	**324TS**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**92.4 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**46.0 A**
Power Factor	**88**	Duty	**Continuous**
Insulation Class	**H**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6312**
Opp Drive End Bearing Size	**6212**	UL	**Listed**
CSA	**Y**	CE	**Y**
IP Code	**55**	Number of Speeds	**1**
Hazardous Location	**DIVISION 2 T2B**		

Technical Specifications

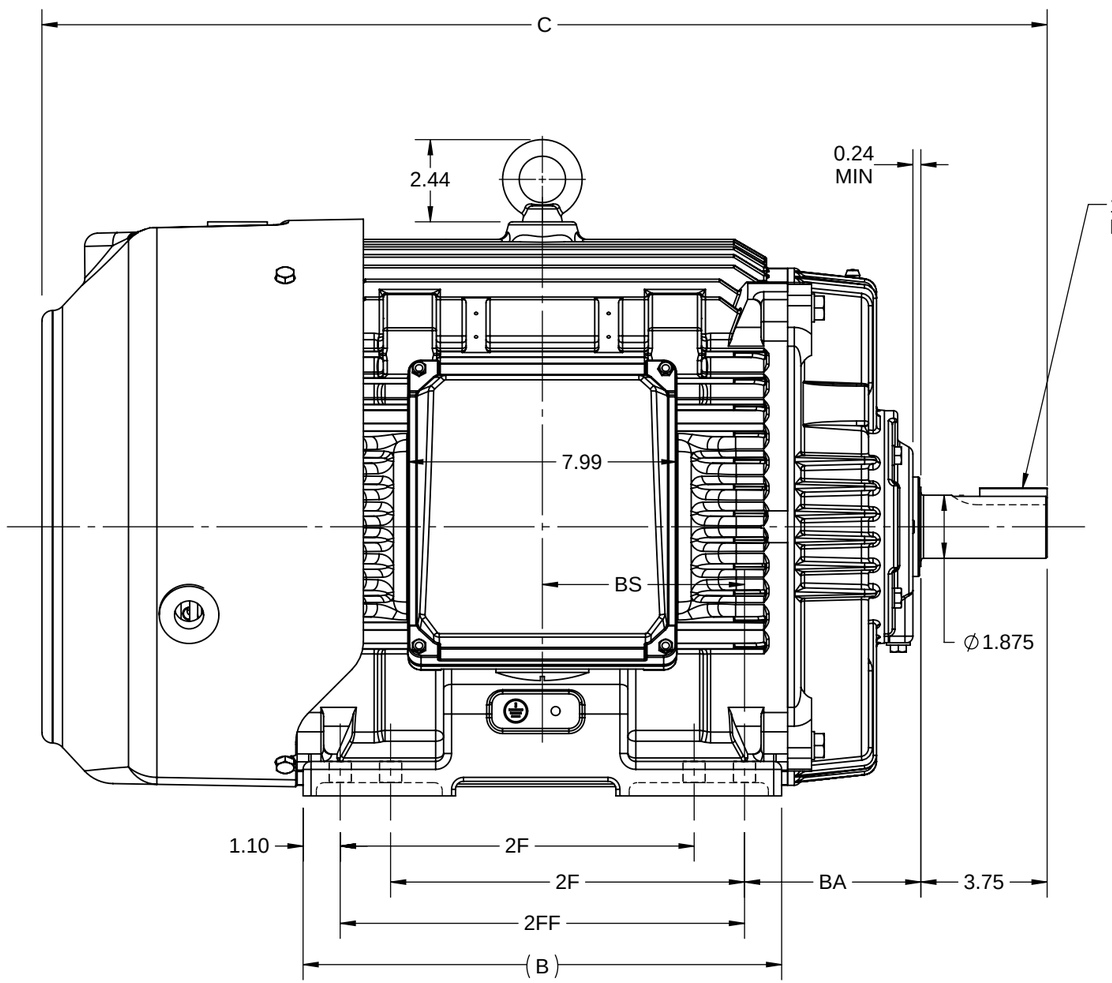
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**2**	Rotation	**Reversible**
Resistance Main	**.1736 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**TS**	Shaft Diameter	**1.875 in**
Assembly/Box Mounting	**F1/F2 Capable**	Inverter Load	**Constant 2:1/Variable 10:1**

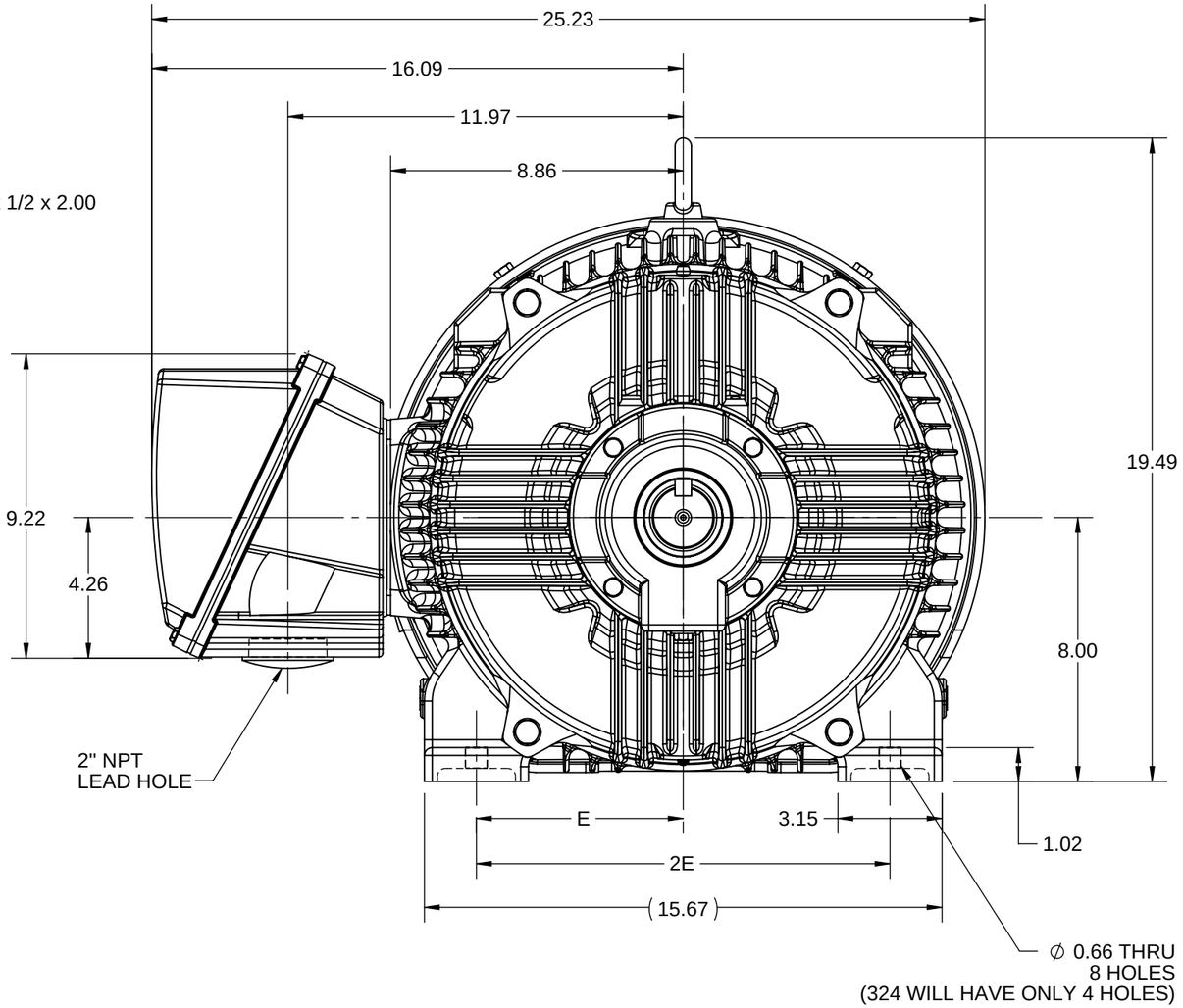
Drawings

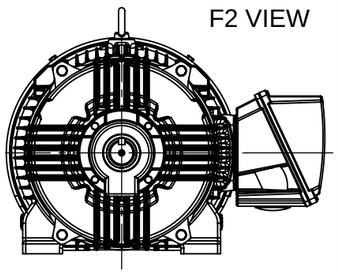
Connection Drawing	**EE7300U**	Outline Drawing	**SS312940-100**

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DASH NO.	B	C	E	2E	2F	2FF	BA	BS	MOUNTING	FRAME
100	12.71	28.35	6.25	12.50	---	10.50	5.25	5.25	F1 OR F2	324TS
200	14.21	29.85			10.50	12.00		6.00		324/326TS







DRAWING REVISION	REVISION BY	REV DATE/© DATE
E	SB	12/23/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0024964	RMS	12/23/2025

REQUEST NUMBER DESCRIPTION
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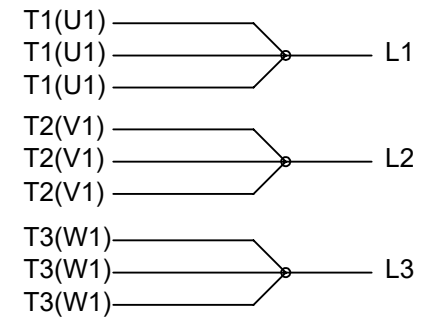
DESCRIPTION
OUTLINE
324/326TS FR-NEMA-SD & IEEE841

MATERIAL | PROCESS/FINISH

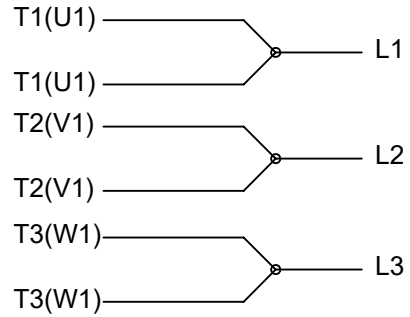
THIRD ANGLE PROJECTION

SIZE	DRAWING NUMBER	SHEET
B	SS312940	1 OF 1

IF MOTOR HAS 9 LEADS

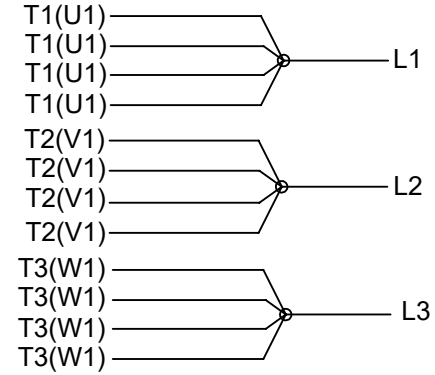


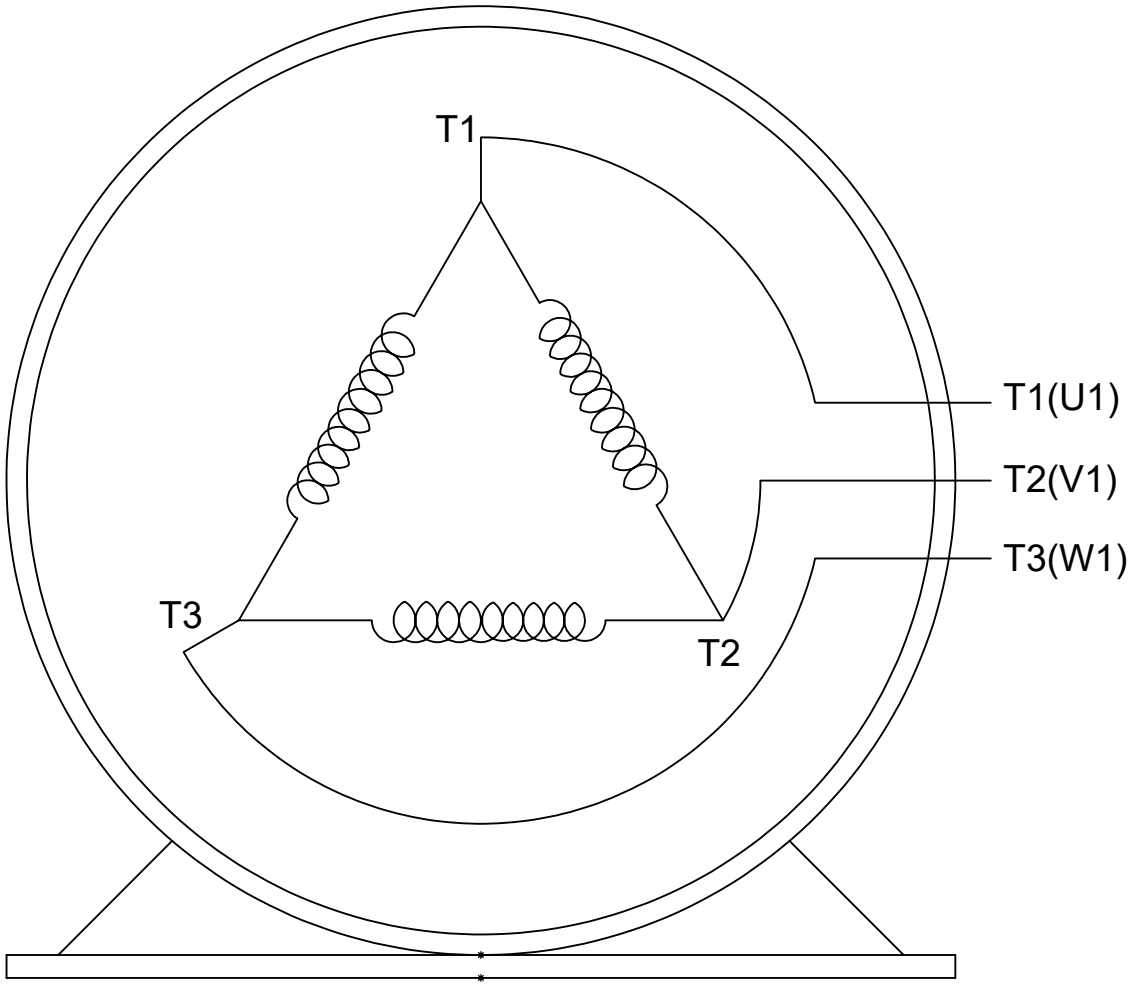
IF MOTOR HAS 6 LEADS



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

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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

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Data Sheet

Date: 3/10/2020
Customer:
Attention:
Submitted by: ANUSHA M

marathon® Motors

324TSTFCD6501

Submittal

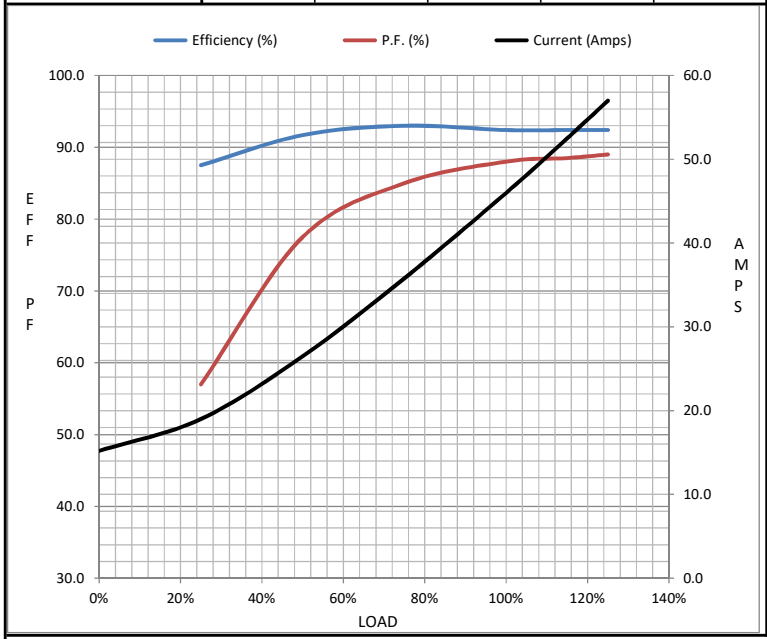
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	15.2	19.0	26.5	35.8	46.0	52.5	57.0	290	
Torque (ft-lb)	0.00	14.6	29.3	44.0	59.0	68.0	74.0	95.0	
RPM	3600	3592	3582	3575	3565	3,560	3555	0	
Efficiency (%)		87.5	91.7	93.0	92.4	92.4	92.4		
P.F. (%)	8.0	57.0	77.5	85.0	88.0	88.5	89.0	30.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3425	3565	3600
Current (Amps)	290	232	175	46.0	15.2
Torque (ft-lb)	95.0	80.0	162	59.0	0.00



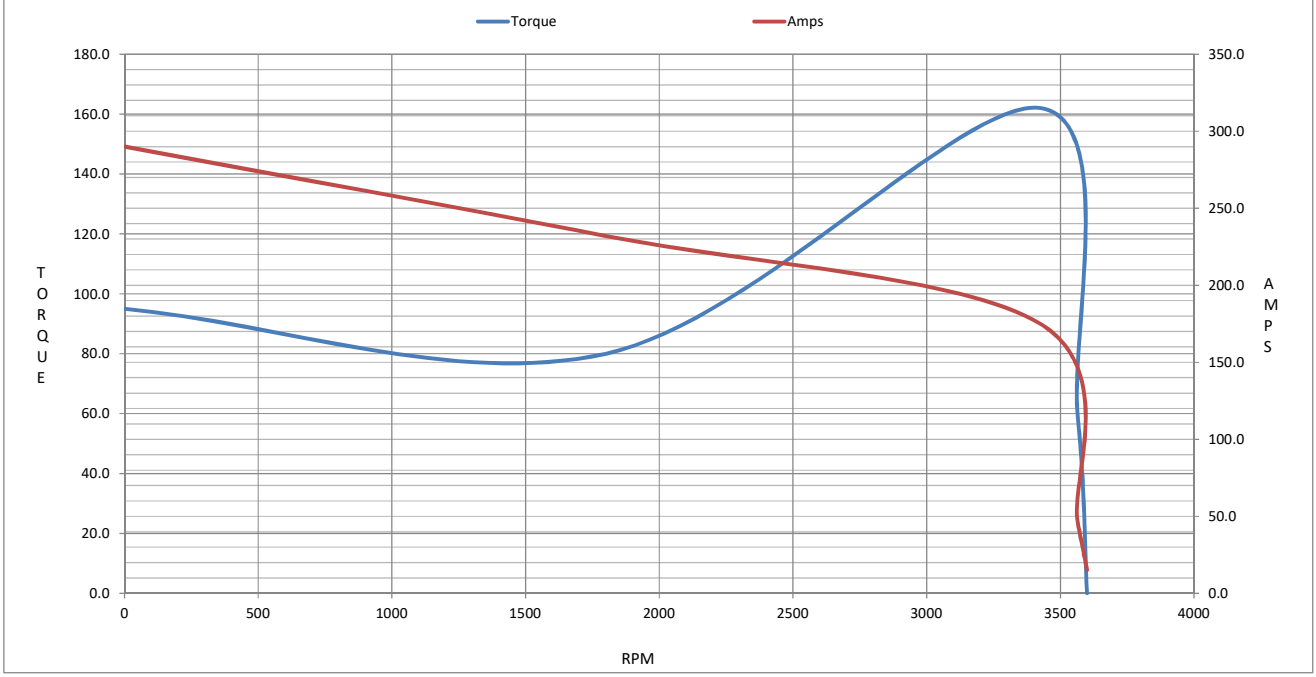
Information Block

HP	40.0
Sync. RPM	3600
Frame	324
Enclosure	TEFC
Construction	TFC
Voltage	460 V
Frequency	60 Hz
Design	B
LR Code letter	G
Service Factor	1.15
Temp Rise @ FL	60 ° C
Duty	CONT
Ambient	50 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	4.8 Lb-Ft²
Ref Wdg	HE32002008 NONE
Sound Pressure @ 1M	77 dBA
VFD Rating	CONSTANT 2:1/VARIABLE 10:1
Outline Dwg	SS312940-324TS
Conn. Diag	EE7300U
Additional Specifications:	
0	
0	

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.1100	0.0570	0.5390	0.5960	17.3730

Speed -Torque Curve



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DATA VOLTS: 460

CERTIFICATION DATA SHEET

MODEL #: 324TSTFCD6501
CONN. DIAGRAM: EE7300U **CAT #:** E609A
OUTLINE: SS312940-324TS
WINDING: HE32002008 NONE 1 **MOUNTING:** F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
40	30	3600	3565	324TS	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV.(Ft)
3	60	460	46	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	92.4	3/4 LD EFF	93.0	1/2 LD EFF	91.7	GTD EFF	ELECT. TYPE	
F.L. PF	88.0	3/4 LD PF	85.0	1/2 LD PF	77.5	91.7	SQ CAGE INV RATED	

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)	
59.0 LB-FT	290	95.0 LB-FT 161%	162 LB-FT 275%	60	

SOUND PRESSURE @	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX. MOTOR
77 dBA	86 dBA	4.8 LB-FT²	25 LB-FT²	20 SEC.	2	600 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 6312	BALL 6212	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)	
0.11	0.057	0.539	0.596	17.373	0.080	

If Inverter equals NONE, contact factory for further information

NOTES
*
*

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: ANUSHA M
DATE: 3/10/2020

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