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Severe Duty Motors

Model No: 324TSTFCD6505
Catalog No: E662A

Severe Duty Motor, 40 HP, 3 Ph, 60 Hz, 575 V, 3600 RPM, 324TS Frame, TEFC

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Product Information Packet: Model No: 324TSTFCD6505, Catalog No: E662A Severe Duty Motor, 40 HP, 3 Ph, 60 Hz, 575 V, 3600 RPM, 324TS Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**40 Hp**
Output KW	**30.0 kW**	Voltage	**575 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	**37.0 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

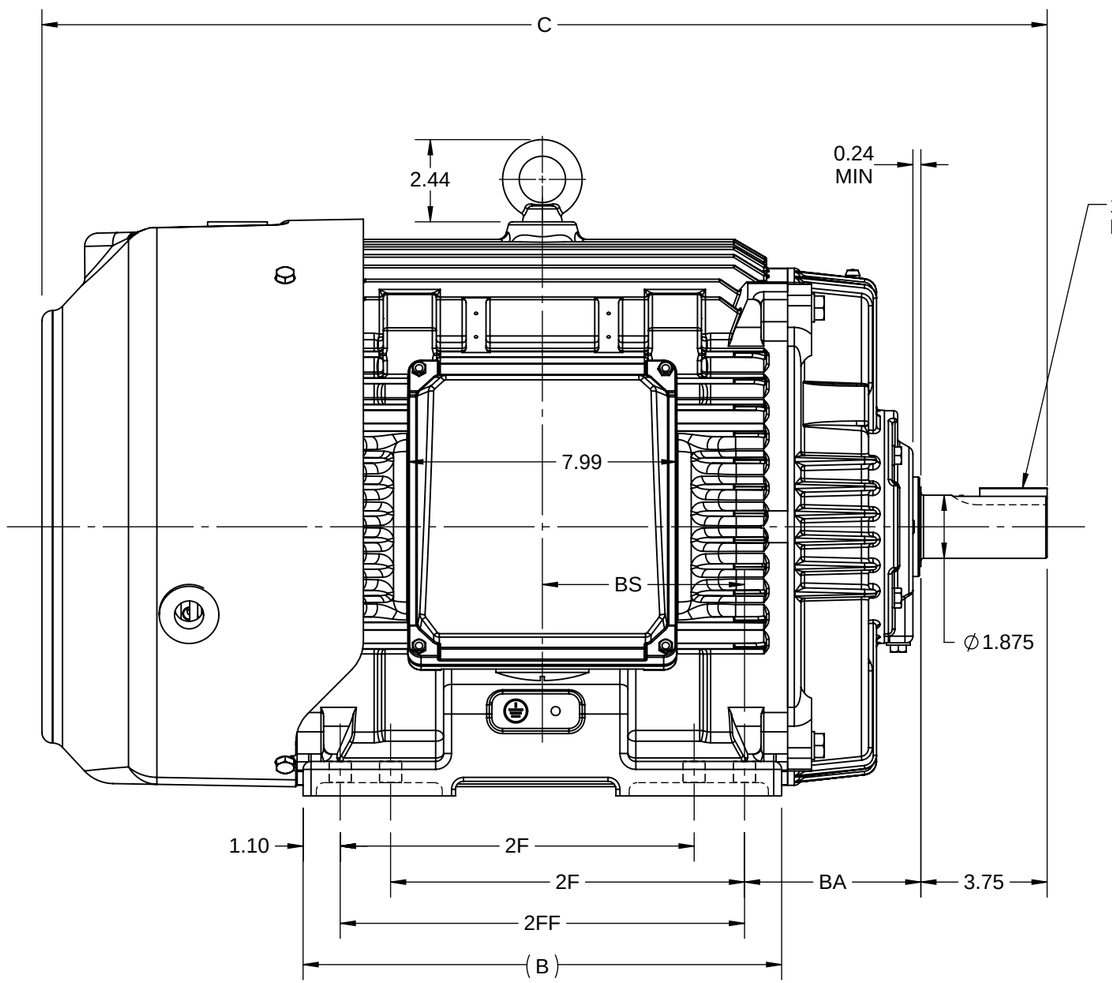
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**2**	Rotation	**Reversible**
Resistance Main	**.1736 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type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

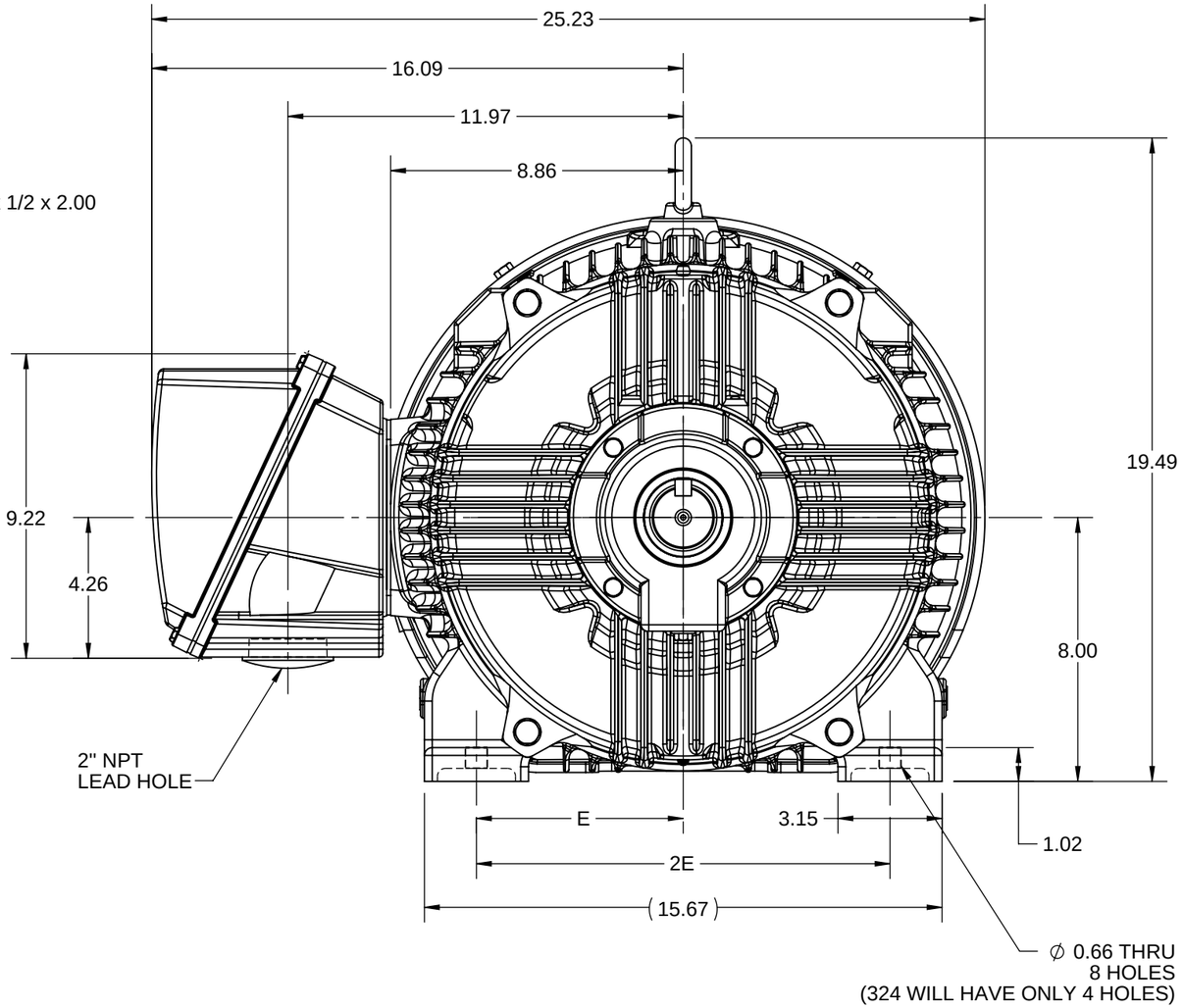
Drawings

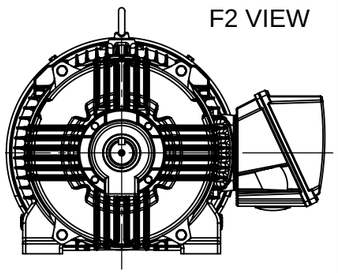
Connection Drawing	**EE7300**	Outline Drawing	**SS312940-100**

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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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BISWA	
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24/10/2018	
APPROVED BY	
SBD	
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24/10/2018	
REFERENCE	

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

MATERIAL | PROCESS/FINISH

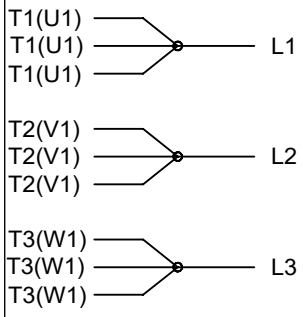
THIRD ANGLE PROJECTION

SIZE	DRAWING NUMBER	SHEET
B	SS312940	1 OF 1

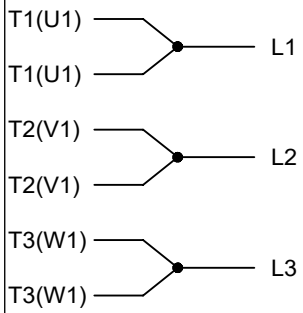
THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS

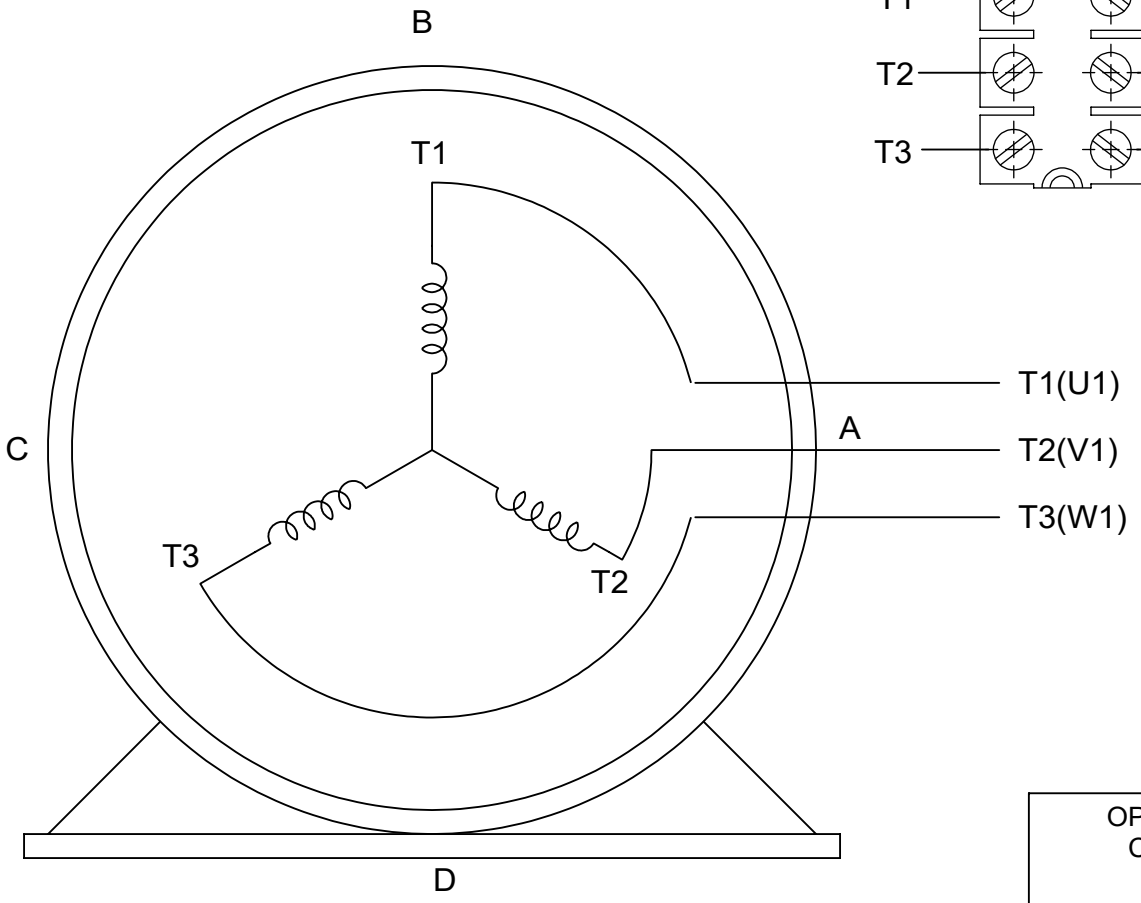
IF MOTOR HAS
9 LEADS



IF MOTOR HAS
6 LEADS



A-9806 DECAL



VIEW OF TERMINAL END

TERMINAL BLOCK WHEN SPECIFIED

OPTIONAL CORD
CONNECTION

L1	WHITE
L2	RED
L3	BLACK

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

REQUEST NUMBER DESCRIPTION
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APPROVED BY: TB	
DATE: 03-26-1993	
REFERENCE	
THIRD ANGLE PROJECTION	

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DESCRIPTION
CONNECTION DIAGRAM
EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR

MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
A	EE7300	1 OF 1

Data Sheet

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

marathon® Motors

324TSTFCD6505

Submittal

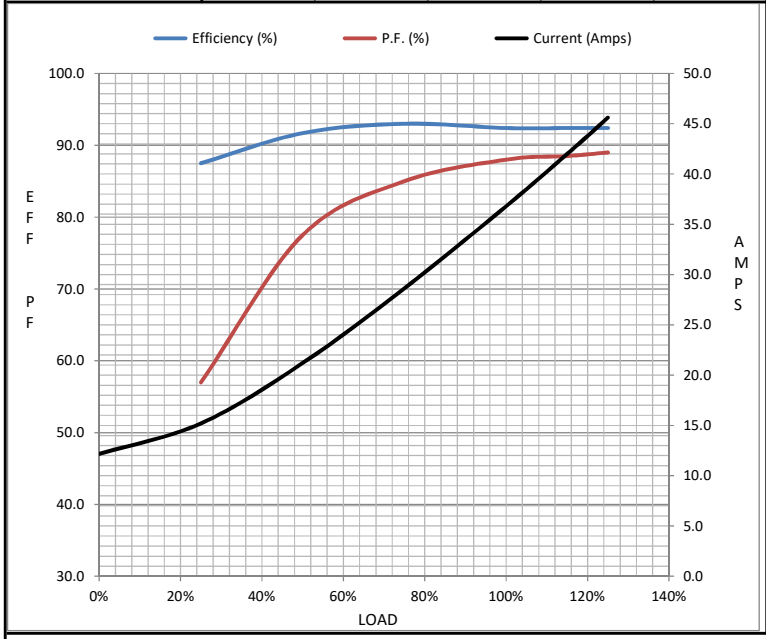
Data @ 575 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	12.2	15.2	21.2	28.6	36.8	42.0	45.6	232	
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)	232	186	140	36.8	12.2
Torque (ft-lb)	95.0	80.0	162	59.0	0.00



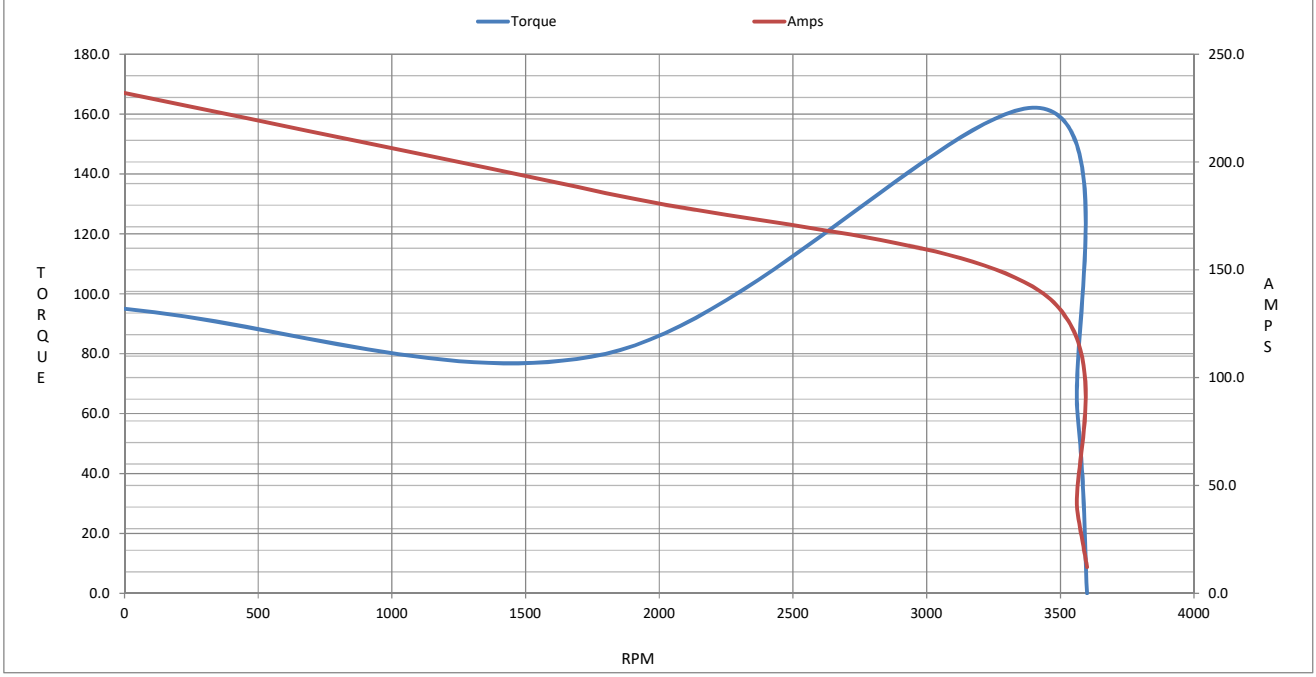
Information Block

HP	40.0
Sync. RPM	3600
Frame	324
Enclosure	TEFC
Construction	TFC
Voltage	575 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	EE7300
Additional Specifications:	
0	
0	

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.1720	0.0900	0.8420	0.9310	27.1450

Speed -Torque Curve



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DATA VOLTS: 460

CERTIFICATION DATA SHEET

MODEL #: 324TSTFCD6505
CAT #: E662A

CONN. DIAGRAM: EE7300
OUTLINE: SS312940-324TS
WINDING: HE32002008 NONE 3

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	575	37	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	232	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	452 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)	
0.172	0.09	0.842	0.931	27.145	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.