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Severe Duty Motors

Model No: 286TSTFCD6804
Catalog No: E490A

Severe Duty Motor, 30 HP, 3 Ph, 60 Hz, 230/460 V, 3600 RPM, 286TS Frame, TEFC

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Product Information Packet: Model No: 286TSTFCD6804, Catalog No: E490A Severe Duty Motor, 30 HP, 3 Ph, 60 Hz, 230/460 V, 3600 RPM, 286TS Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**30 Hp**
Output KW	**22.4 kW**	Voltage	**230/460 V**
Speed	**3550 r/min**	Synchronous RPM	**3600 r/min**
Service Factor	**1.15**	Frame	**286TS**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**91.7 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**71.0/35.5 A**
Power Factor	**86.5**	Duty	**Continuous**
Insulation Class	**H**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6311**
Opp Drive End Bearing Size	**6211**	UL	**Listed**
CSA	**Y**	CE	**Y**
IP Code	**55**	Number of Speeds	**1**
Hazardous Location	**DIVISION 2 T2B**		

Technical Specifications

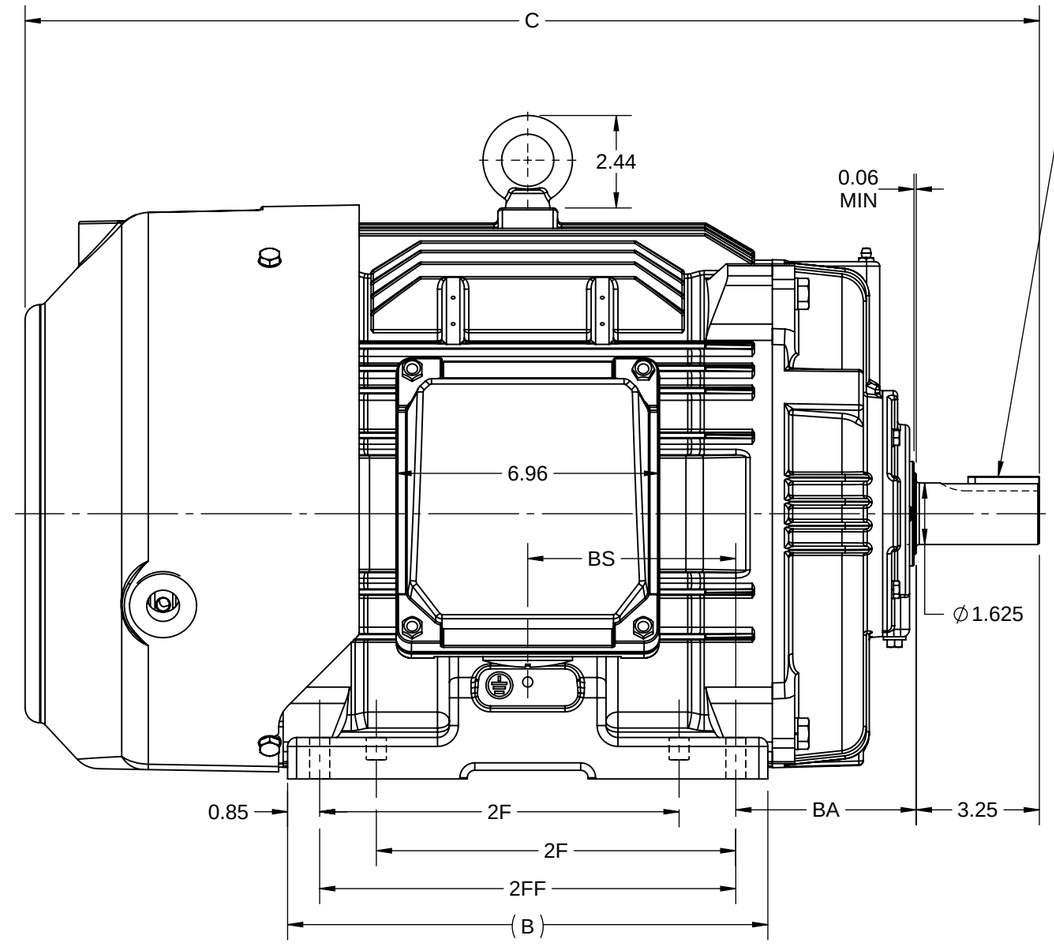
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**2**	Rotation	**Reversible**
Resistance Main	**.338 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**TS**	Shaft Diameter	**1.625 in**
Assembly/Box Mounting	**F1/F2 Capable**	Inverter Load	**Constant 2:1/Variable 10:1**

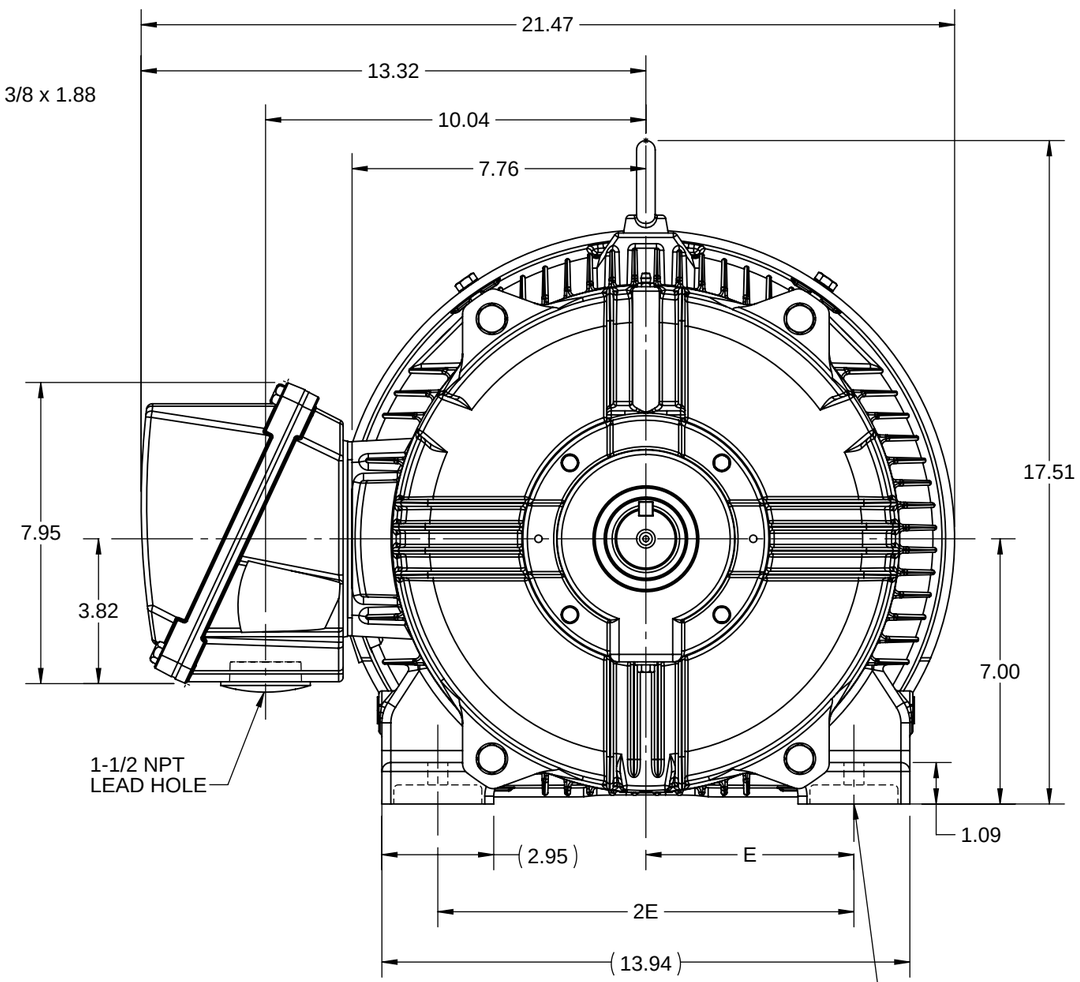
Drawings

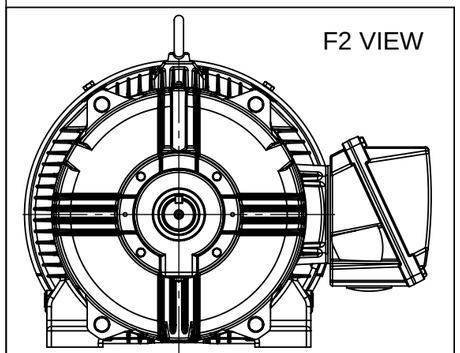
Connection Drawing	**EE7308K**	Outline Drawing	**SS312943-200**

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DASH NO.	B	C	E	2E	2F	2FF	BA	BS	MOUNTING	FRAME
100	10.83	25.27	5.50	11.00	---	9.50	4.75	4.75	F1 OR F2	284TS
200	12.68	26.77			9.50	11.00		5.50		284/286TS







DRAWING REVISION	REVISION BY	REV DATE/© DATE
E	SB	12/19/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0024964	RMS	12/19/2025

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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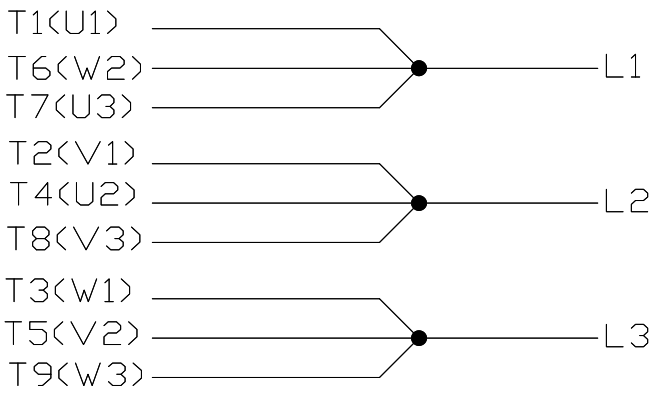
PRIMARY DIMENSIONS ARE INCH
mm DIMENSIONS IN [BRACKETS]
ARE FOR REFERENCE ONLY

DRAWN BY	DESCRIPTION
BISWA	OUTLINE
DATE 24/12/2018	284/286TS FR-NEMA-SD & IEEE841
APPROVED BY SBD	
DATE 24/12/2018	
REFERENCE	MATERIAL / PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B / DRAWING NUMBER SS312943 / SHEET 1 OF 1

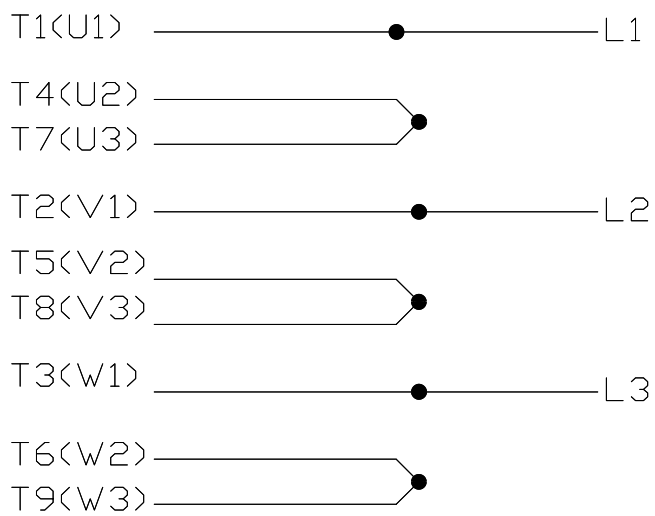
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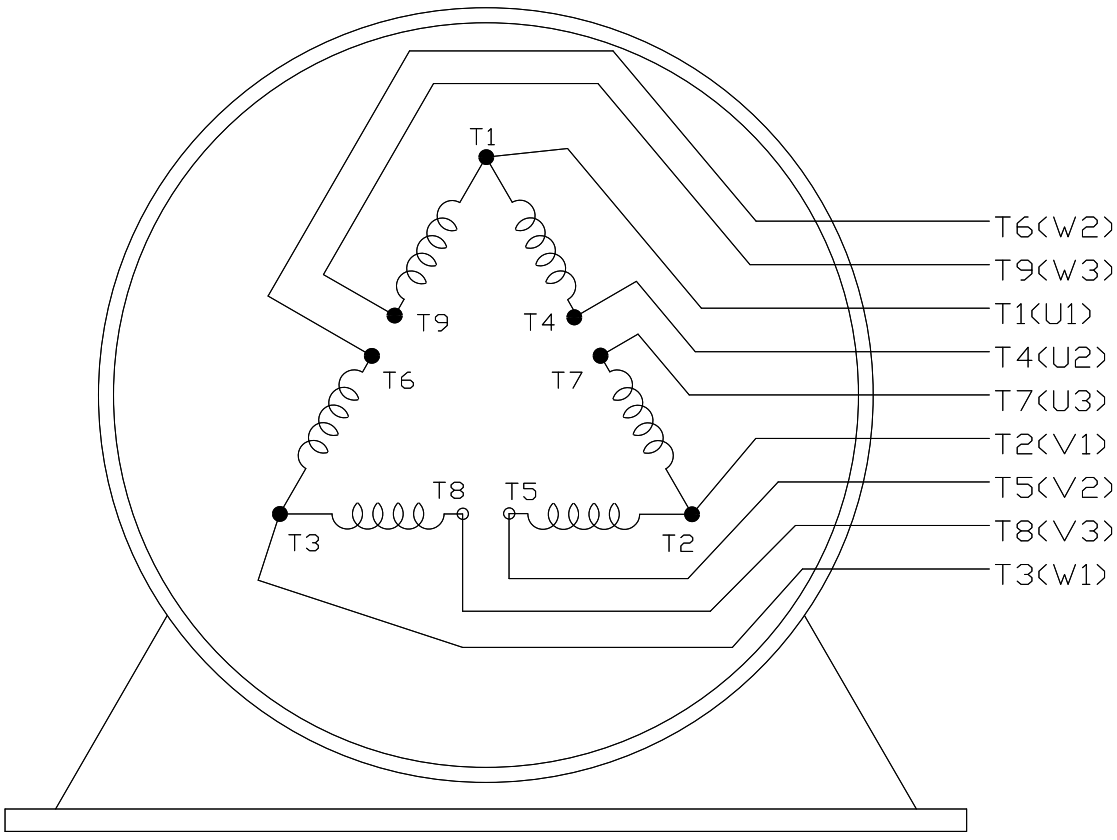
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LOW VOLTAGE



HIGH VOLTAGE





VIEW OF TERMINAL END

DRAWING REVISION: F	REVISION BY: SB	REV DATE/ © DATE: 08/01/2025	DRAWN BY: PGK	marathon™
REQUEST NUMBER: CR-0023654	APPROVED BY: SBD	DATE: 08/01/2025	DATE: 06/04/1997	
REQUEST NUMBER DESCRIPTION: DRAWING TITLE BLOCK UPDATED			APPROVED BY: GK	DESCRIPTION: CONN DIAGRAM-EXTERNAL DELTA CON. - 3ø - 9 LEADS
			DATE: 06/15/1997	
			REFERENCE	MATERIAL / PROCESS/FINISH
			THIRD ANGLE PROJECTION	SIZE: A / DRAWING NUMBER: EE7308K / SHEET: 1 OF 1

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Data Sheet

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

marathon® Motors

286TSTFCD6804

Submittal

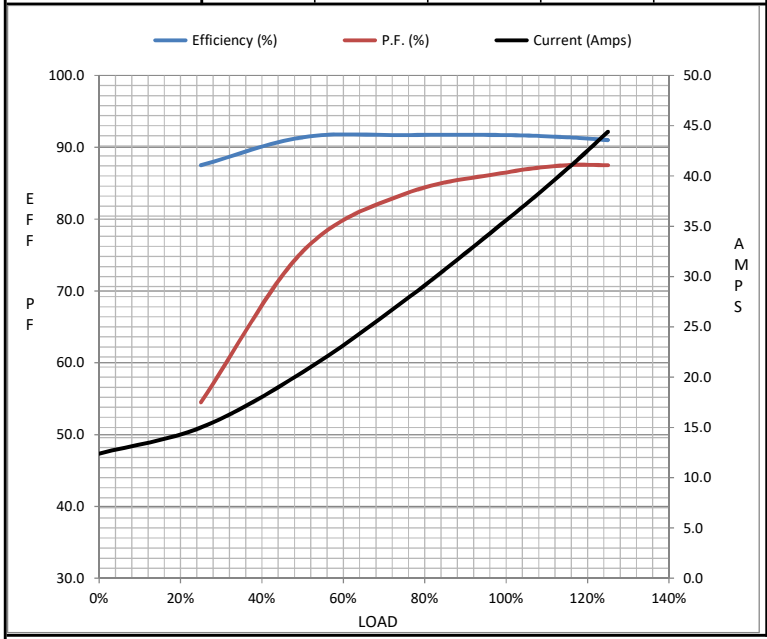
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	12.4	15.0	20.5	27.6	35.6	40.7	44.4	210	
Torque (ft-lb)	0.00	11.0	22.0	33.0	44.4	51.0	55.5	77.0	
RPM	3600	3588	3575	3565	3550	3,542	3536	0	
Efficiency (%)		87.5	91.4	91.7	91.7	91.4	91.0		
P.F. (%)	8.0	54.5	75.5	83.5	86.5	87.5	87.5	35.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3325	3550	3600
Current (Amps)	210	189	120	35.6	12.4
Torque (ft-lb)	77.0	65.0	107	44.4	0.00



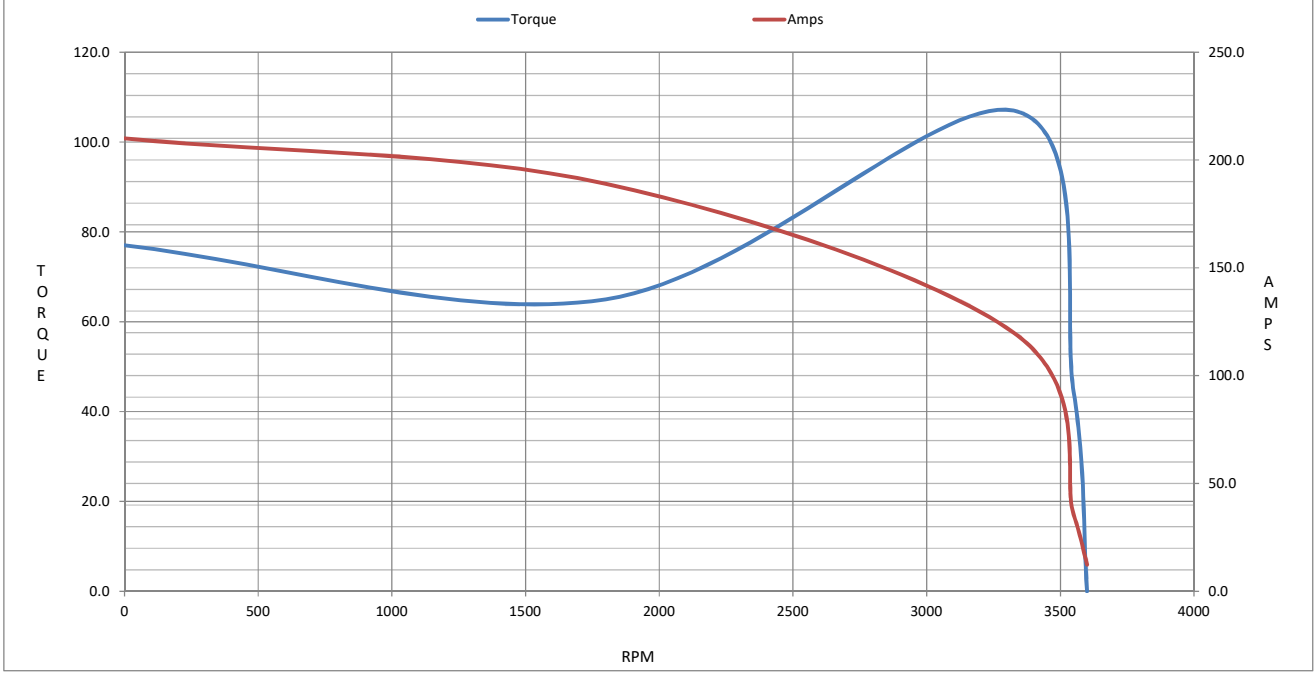
Information Block

HP	30.0
Sync. RPM	3600
Frame	286
Enclosure	TEFC
Construction	TFC
Voltage	230/460 V
Frequency	60 Hz
Design	B
LR Code letter	G
Service Factor	1.15
Temp Rise @ FL	65 ° C
Duty	CONT
Ambient	50 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	3.3 Lb-Ft²
Ref Wdg	HE31802003 NONE
Sound Pressure @ 1M	75 dBA
VFD Rating	CONSTANT 20:1
Outline Dwg	SS312943-286TS
Conn. Diag	EE7308K
Additional Specifications:	
0	
0	

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.2290	0.1060	0.7060	0.7850	22.1360

Speed -Torque Curve



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DATA VOLTS: 460

CERTIFICATION DATA SHEET

MODEL #: 286TSTFCD6804
CAT #: E490A

CONN. DIAGRAM: EE7308K
OUTLINE: SS312943-286TS
WINDING: HE31802003 NONE 2

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
30	22.4	3600	3550	286TS	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV.(Ft)
3	60	230/460	71/35.5	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	91.7	3/4 LD EFF	91.7	1/2 LD EFF	91.4	GTD EFF	ELECT. TYPE
F.L. PF	86.5	3/4 LD PF	83.5	1/2 LD PF	75.5	91.0	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)	
44.4 LB-FT	210	77.0 LB-FT 173%	107 LB-FT 241%	65	

SOUND PRESSURE @	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX. MOTOR
75 dBA	84 dBA	3.3 LB-FT²	35 LB-FT²	20 SEC.	2	450 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 6311	BALL 6211	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)	
0.229	0.106	0.706	0.785	22.136	0.080	

If Inverter equals NONE, contact factory for further information

* NOTES *

INVERTER TORQUE: CONSTANT 20:1
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.