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Inverter (Vector) Duty Motors

Model No: 256THTCD7036
Catalog No: Y563A

Inverter (Vector) Duty Motor, 20 HP, 3 Ph, 60 Hz, 575 V, 1800 RPM, 256TC Frame, TENV

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Product Information Packet: Model No: 256THTCD7036, Catalog No: Y563A Inverter (Vector) Duty Motor, 20 HP, 3 Ph, 60 Hz, 575 V, 1800 RPM, 256TC Frame, TENV

Nameplate Specifications

Phase	**3**	Output HP	**20 Hp**
Output KW	**14.9 kW**	Voltage	**575 V**
Speed	**1778 r/min**	Synchronous RPM	**1800 r/min**
Service Factor	**1.00**	Frame	**256TC**
Enclosure	**Totally Enclosed Non Ventilated**	Thermal Protection	**Thermostat**
Efficiency	**93.6 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**19.6 A**
Power Factor	**84**	Duty	**Continuous**
Insulation Class	**H**	Design Code	**INV**
KVA Code	**M**	Drive End Bearing Size	**6309**
Opp Drive End Bearing Size	**6209**	UL	**Recognized**
CSA	**Y**	CE	**Y**
IP Code	**55**	Number of Speeds	**1**

Technical Specifications

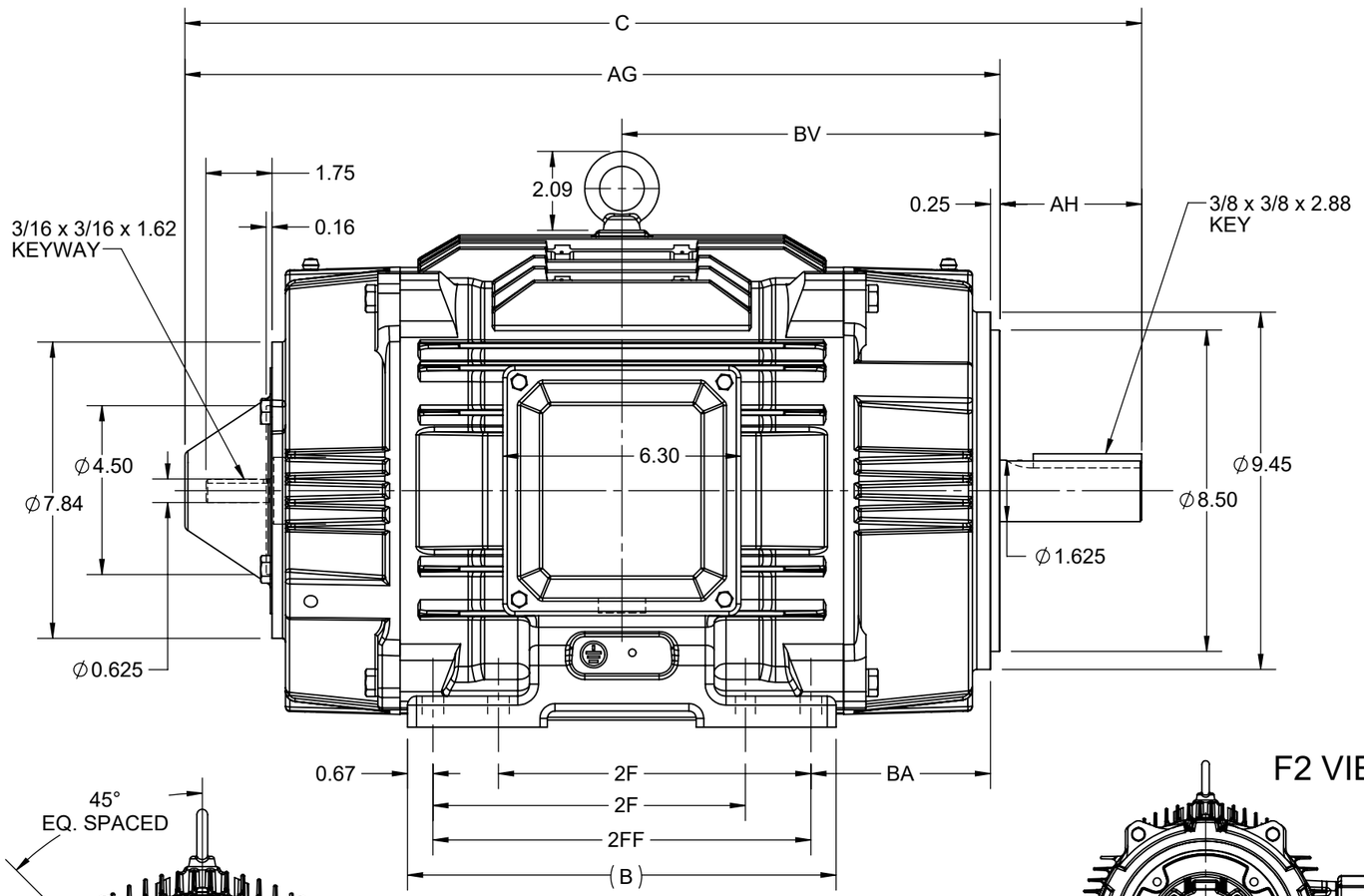
Electrical Type	**Squirrel Cage Inverter Duty**	Starting Method	**Inverter Only**
Poles	**4**	Rotation	**Reversible**
Resistance Main	**.333 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**T**	Shaft Diameter	**1.625 in**
Assembly/Box Mounting	**F1/F2 Capable**	Inverter Load	**Constant 1000:1**

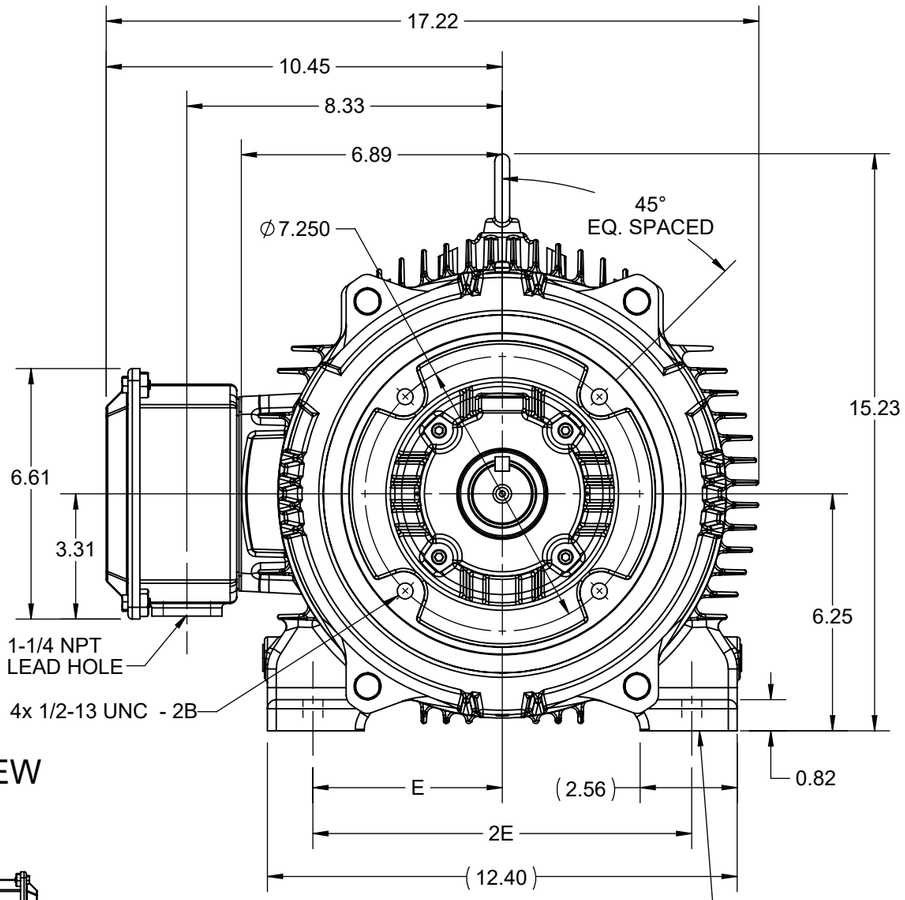
Drawings

Connection Drawing	**EE7300T**	Outline Drawing	**SS209617-200**

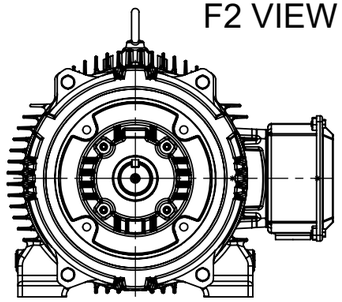
This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created: 15/10/2026

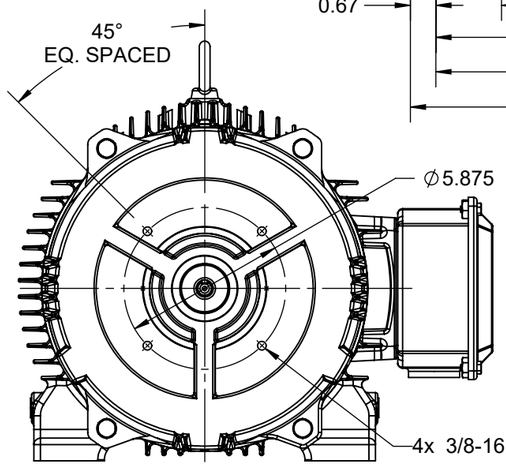
DASH NO.	B	C	E	2E	2F	2FF	AG	AH	BA	BV	MOUNTING	FRAME
100	9.60	23.56	5.00	10.00	---	8.25	19.72	3.75	4.75	9.14	F1 OR F2	254TC
200	11.34	25.31			8.25	10.00	21.56			10.00		254/256TC





F2 VIEW





ODE VIEW
COVER REMOVED

DRAWING REVISION	REVISION BY	REV DATE/© DATE
D	SB	07/23/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0023556	SBD	07/23/2025

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	VS
DATE	28-05-2020
APPROVED BY	SBD
DATE	28-05-2020
REFERENCE	SS203158
THIRD ANGLE PROJECTION	

marathon™

DESCRIPTION
OUTLINE
254/256TC FR NEMA TENV ODE 4.5 AK BRKT

MATERIAL | PROCESS/FINISH

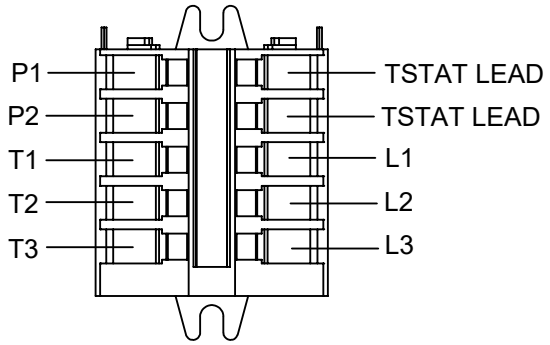
SIZE	DRAWING NUMBER	SHEET
B	SS209617	1 OF 1

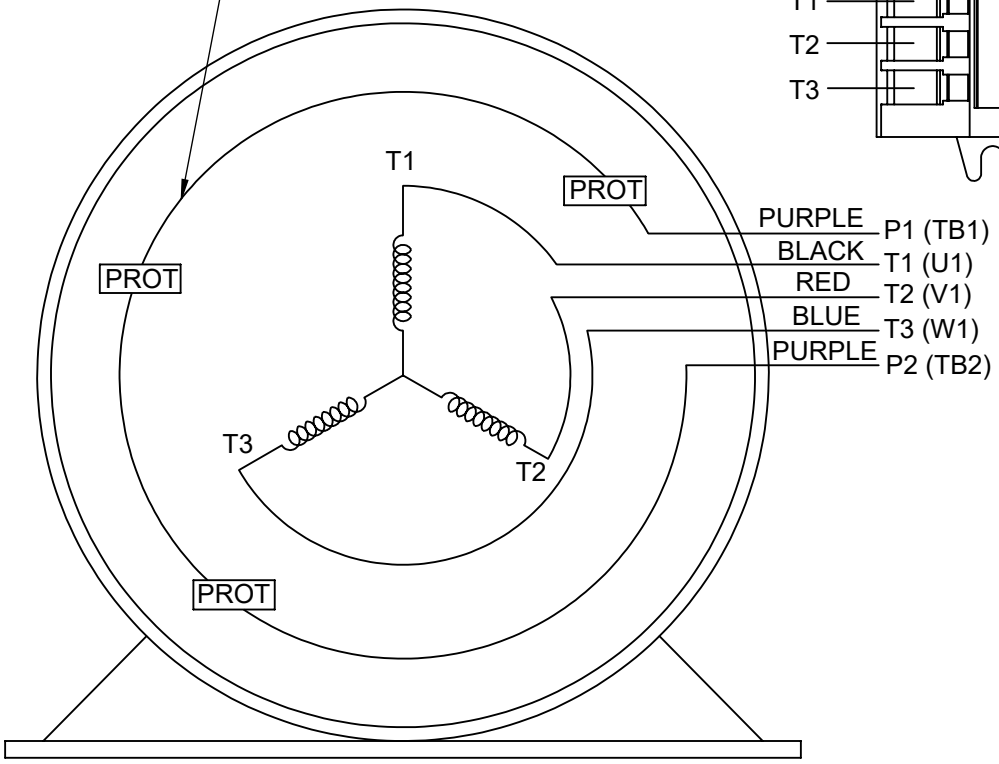
THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS

NOTE FOR FACTORY USE ONLY:
TO SURGE TEST:
FOR 3 LEAD COMMON CONNECT:
CONNECT P1 TO T1 THEN P2 TO L1
FOR 6 LEAD COMMON CONNECT:
CONNECT P1 TO BOTH T1
THEN P2 TO L1

TERMINIAL BLOCK WHEN SPECIFIED

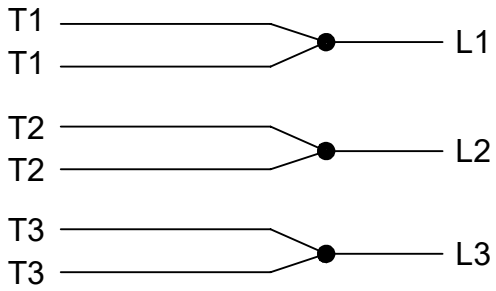




VIEW OF TERMINAL END

T2BM
T6AW
T6AL
T6Z
T4EG
T4BF
T8A
T6H
T6A
T4AX
T4A
T2A
T2F

IF MOTOR HAS MULTIPLE
T'S PER LEAD CONNECT
TOGETHER LIKE T'S



A-9806 DECAL

DRAWING REVISION AC	REVISION BY SB	REV DATE/© DATE 08/01/2025	PRIMARY DIMENSIONS ARE INCH mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY	DRAWN BY LZ	marathon™
REQUEST NUMBER CR-0023654	APPROVED BY SBD	DATE 08/01/2025		DATE 01-04-1994	
REQUEST NUMBER DESCRIPTION DRAWING TITLE BLOCK UPDATED				APPROVED BY GK	DESCRIPTION CONN DIAGRAM-EXTERNAL 3Ø-SINGLE VOLT-MOTOR WITH PROTECTOR
				DATE 01-20-1994	
				REFERENCE	MATERIAL / PROCESS/FINISH
				THIRD ANGLE PROJECTION	SIZE A / DRAWING NUMBER EE7300T / SHEET 1 OF 1

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Data Sheet

Date: 11/28/2022
Customer:
Attention:
Submitted by:

marathon® electric

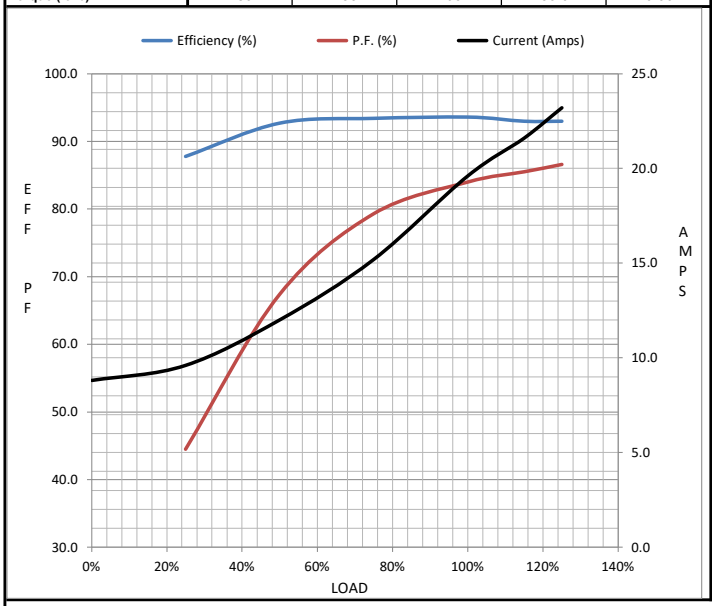
256THTCD7036
NONE FAN
Submittal
Data @ 575 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	8.8	9.6	12.0	15.2	19.6	21.6	23.2	208	
Torque (ft-lb)	0.00	14.6	29.4	44.2	59.0	68.0	74.0	180	
RPM	1800	1795	1790	1785	1778	1,776	1774	0	
Efficiency (%)		87.8	92.7	93.4	93.6	93.0	93.0		
P.F. (%)	5.7	44.5	67.4	79.3	84.0	85.5	86.6	40.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	889	1600	1778	1800
Current (Amps)	208	187	120	19.6	8.8
Torque (ft-lb)	180	153	260	59.0	0.00

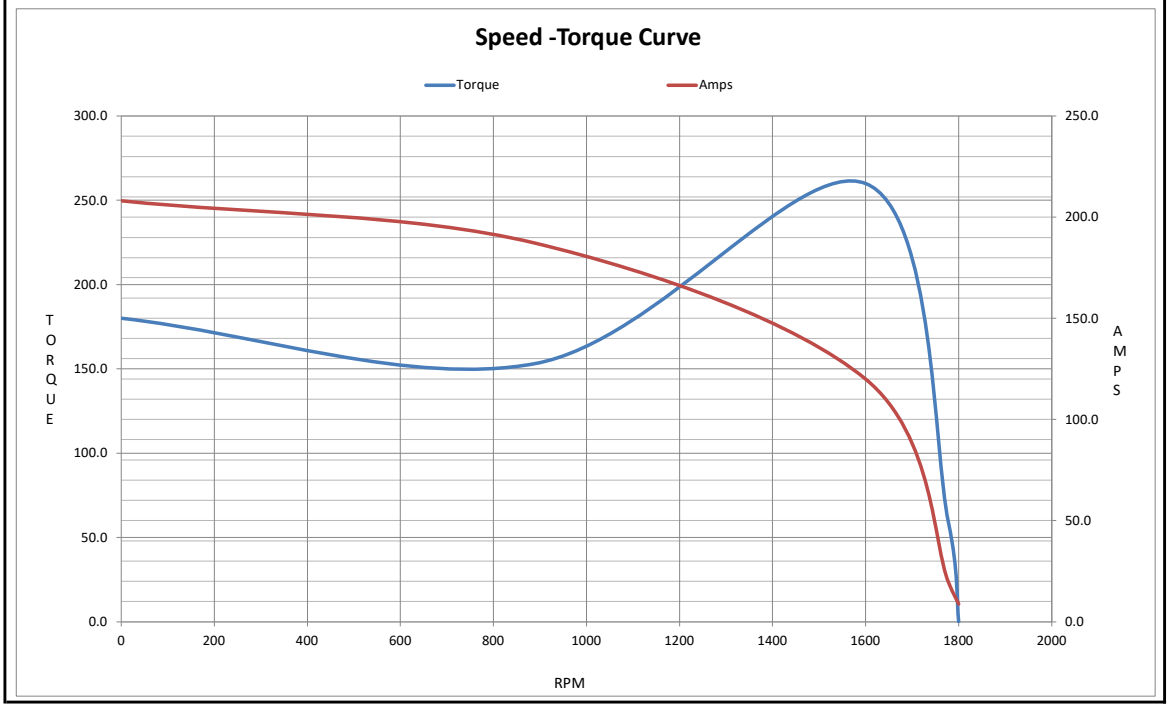


Information Block

HP	20.0
Sync. RPM	1800
Frame	256
Enclosure	TENV
Construction	TTC
Voltage	575 V
Frequency	60 Hz
Design	A
LR Code letter	M
Service Factor	1
Temp Rise @ FL	105 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	3.5 Lb-Ft²
Ref Wdg	HA31604035 NONE
Sound Pressure @ 1M	62 dBA
VFD Rating	CONSTANT 1000:1
Outline Dwg	SS209617-200
Conn. Diag	EE7300T
Additional Specifications:	
0	
0	

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.3260	0.2100	1.1390	1.0640	32.8800



P.O. BOX 8003
WAUSAU, WI 54401-8003
PH. 715-675-3311

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER:
ORDER #:
CONN. DIAGRAM: EE7300T
OUTLINE: SS209617-200
WINDING: HA31604035 NONE 3
SPEED:

CUSTOMER P.O. #:
REFERENCE MODEL #: 256THTCD7036
CAT #: Y563A
CUSTOMER PART #:
MOUNTING: F1/F2 CAPABLE
FAN: 504205B

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
20	14.9	1800	1778	256TC	TENV	TTC	M	INF

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	575	19.6	INVERTER ONLY	CONT	H	1.15	40	3300

F.L. EFF	93.6	3/4 LD EFF	93.4	1/2 LD EFF	92.7	GTD EFF	ELECT. TYPE	
F.L. PF	84.0	3/4 LD PF	79.3	1/2 LD PF	67.4	92.7	SQ CAGE INV DUTY	

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)	
59.0 LB-FT	208	180 LB-FT 305%	260 LB-FT 441%	105	

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.
62 dBA	71 dBA	3.5 LB-FT²	30 LB-FT²	18 SEC.	2	0 LB.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	BRAKE OR ENCODER	RIGID	HORIZONTAL	NO	NONE	NO	NONE	BLACK (ENAMEL)

BEARINGS DE	BEARINGS ODE	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
BALL 6309	BALL 6209	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204	CAST IRON

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
TSTATS (N/C)	NOT	NONE	NONE	NONE	FALSE	NA

R1 (ohms/ph)	R2 (ohms/ph)	X1 (ohms/ph)	X2 (ohms/ph)	Xm (ohms/ph)	VIBRATION (in/sec)	FLOAT
0.326	0.21	1.139	1.064	32.88	0.150	ODE

*
NOTES
*

INVERTER TORQUE: CONSTANT 1000:1
INV. HP SPEED RANGE: 2.0 X BASE SPEED

ENCODER: NONE
NONE
NONE NONE **PPR**

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

PREPARED BY:
DATE: 11/28/2022

FORM: 3531 REV_4 2/27/06

UL: V-INS, CONST, OVERHEAT PRT DEV UL REC