marathon®

Severe Duty Motors

Model No: 256THFCD9026
Catalog No: W553A

Severe Duty Motor, 20 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 256T Frame, TEFC

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Product Information Packet: Model No: 256THFCD9026, Catalog No: W553A Severe Duty Motor, 20 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 256T Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**20 Hp**
Output KW	**14.9 kW**	Voltage	**460 V**
Speed	**1768 r/min**	Synchronous RPM	**1800 r/min**
Service Factor	**1.15**	Frame	**256T**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**93 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**24.2 A**
Power Factor	**83.5**	Duty	**Continuous**
Insulation Class	**H**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6309**
Opp Drive End Bearing Size	**6209**	UL	**Listed**
CSA	**Y**	CE	**Y**
IP Code	**56**	Number of Speeds	**1**
Hazardous Location	**DIVISION 2 T2B**		

Technical Specifications

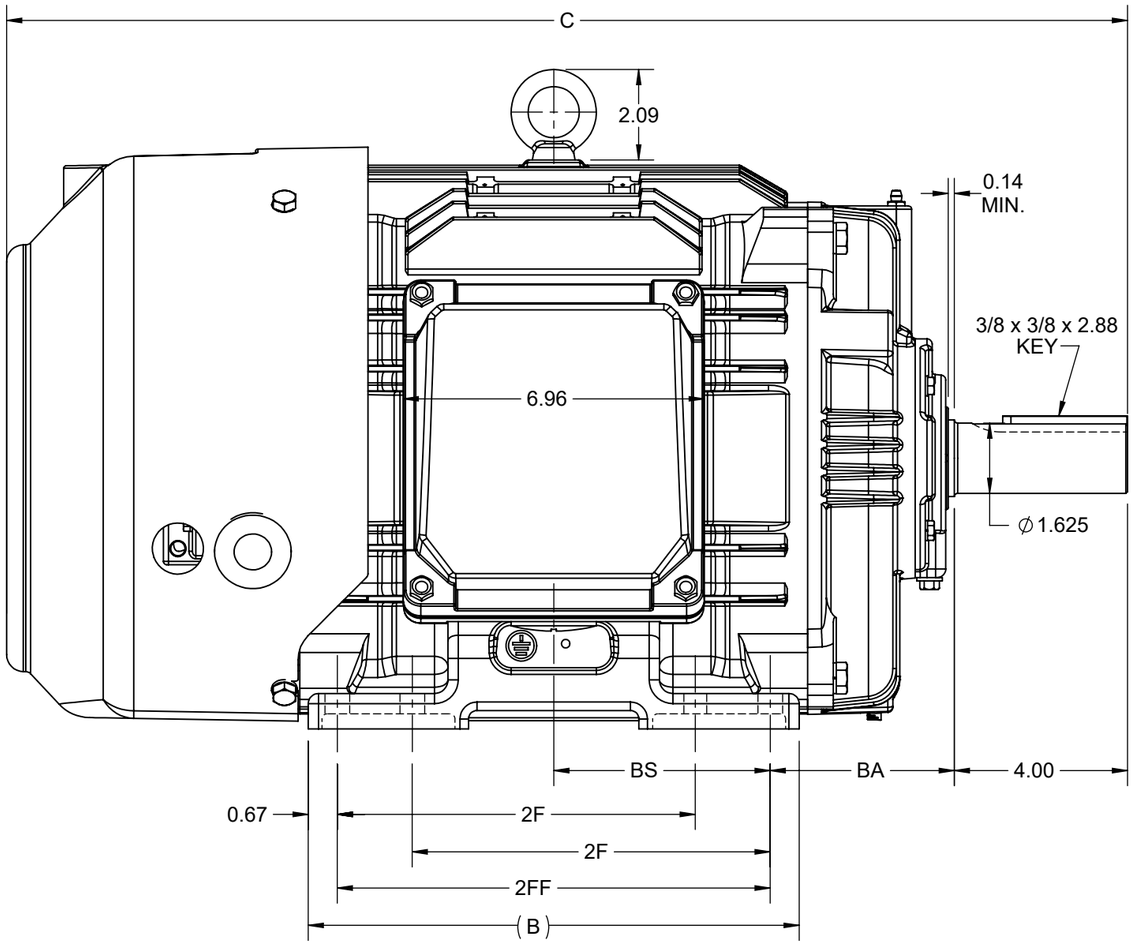
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**4**	Rotation	**Reversible**
Resistance Main	**.513 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**T**	Shaft Diameter	**1.626 in**
Assembly/Box Mounting	**F1/F2 Capable**	Inverter Load	**Constant 10:1/Variable 10:1**

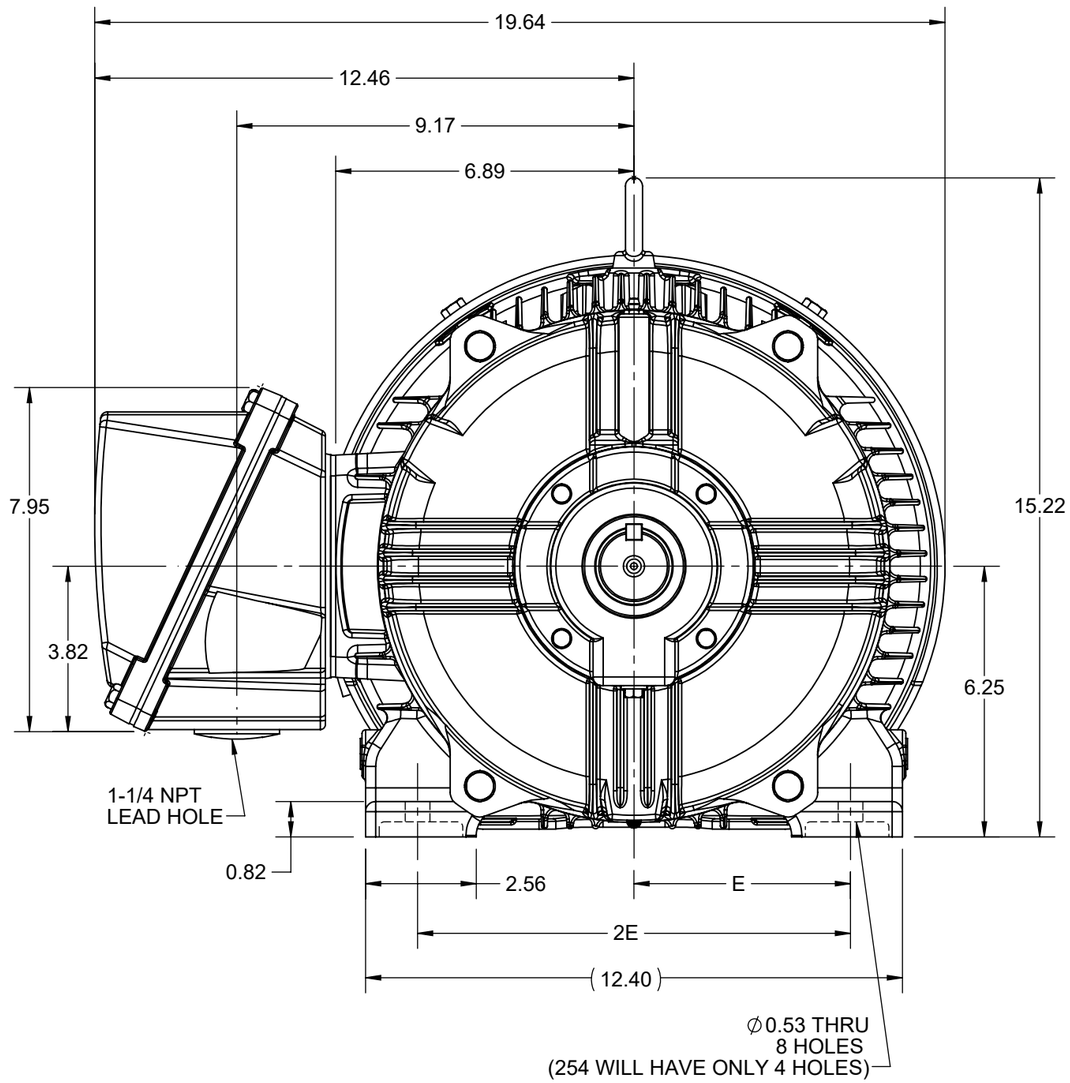
Drawings

Connection Drawing	**EE7300**	Outline Drawing	**SS208560-200**

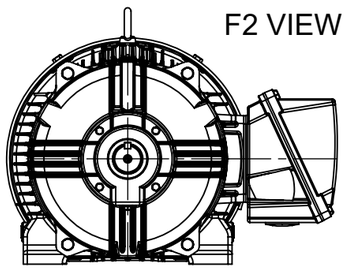
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DASH NO.	B	C	E	2E	2F	2FF	BA	BS	MOUNTING	FRAME
100	9.60	24.15	5.00	10.00	-	8.25	4.25	4.13	F1 OR F2	254T
200	11.34	25.89			8.25	10.00		5.00		254/256T





F2 VIEW



DRAWING REVISION F	REVISION BY SB	REV DATE/© DATE 07/23/2025
REQUEST NUMBER CR-0023556	APPROVED BY SBD	DATE 07/23/2025
REQUEST NUMBER DESCRIPTION: DRAWING TITLE BLOCK UPDATED		

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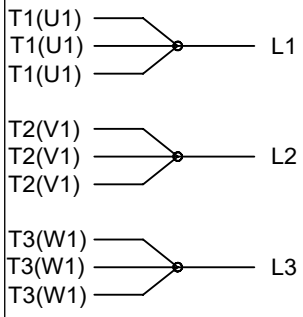
PRIMARY DIMENSIONS ARE INCH
mm DIMENSIONS IN [BRACKETS]
ARE FOR REFERENCE ONLY

DRAWN BY BISWA	marathon™	
DATE 26/09/2018	DESCRIPTION: OUTLINE 254T/256T FR-NEMA-SD & IEEE841	
APPROVED BY SBD		
DATE 26/09/2018		
REFERENCE	MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B / DRAWING NUMBER SS208560	SHEET 1 OF 1

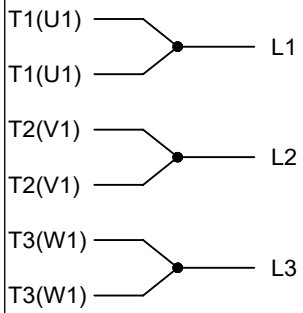
THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS

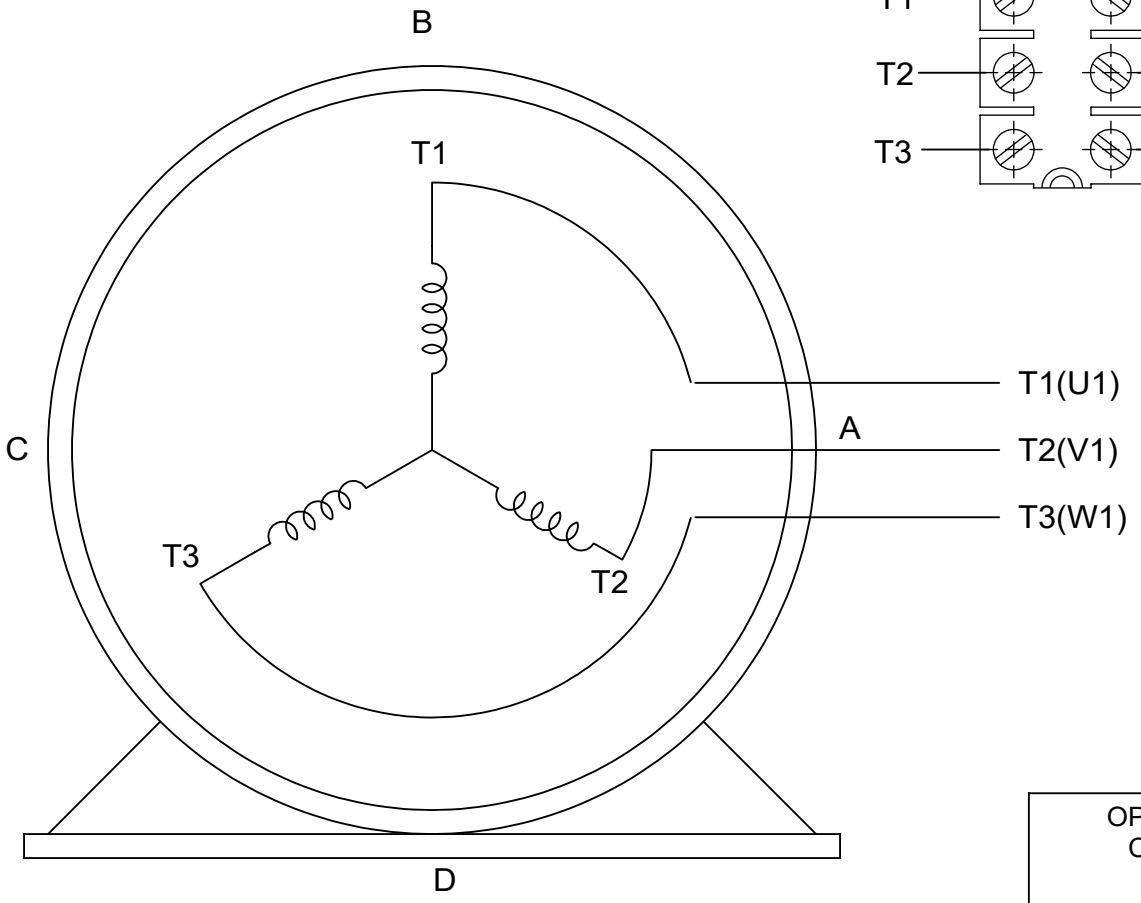
IF MOTOR HAS
9 LEADS



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
DRAWING TITLE BLOCK UPDATED

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DRAWN BY: DA	
DATE: 03-26-1993	
APPROVED BY: TB	
DATE: 03-26-1993	
REFERENCE	
THIRD ANGLE PROJECTION	

marathon™

DESCRIPTION
CONNECTION DIAGRAM
EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR

MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
A	EE7300	1 OF 1

Uncontrolled Copy

Data Sheet

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

marathon® Motors

256THFCD9026

Submittal

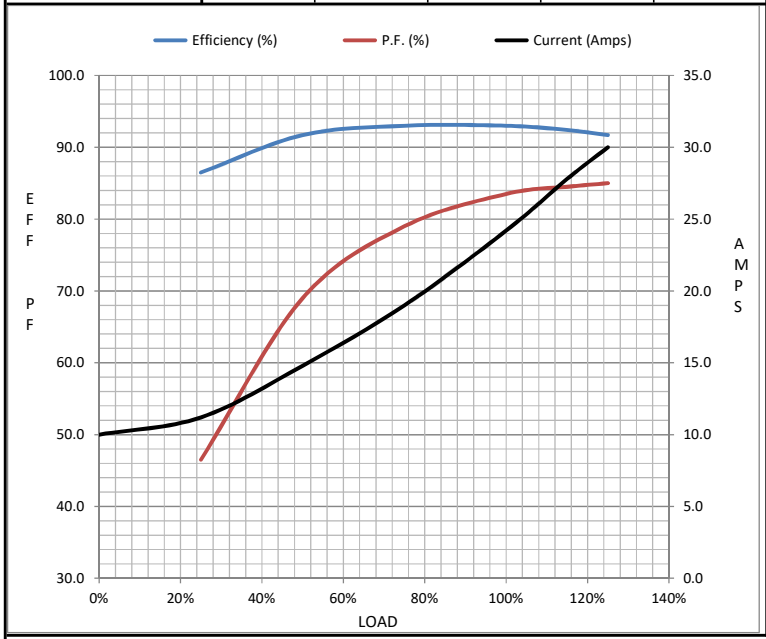
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	10.0	11.2	14.8	19.0	24.2	27.8	30.0	144	
Torque (ft-lb)	0.00	14.6	29.5	44.4	59.4	68.5	74.7	119	
RPM	1800	1792	1785	1778	1768	1,762	1760	0	
Efficiency (%)		86.5	91.7	93.0	93.0	92.4	91.7		
P.F. (%)	5.0	46.5	69.0	79.0	83.5	84.5	85.0	42.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1618	1768	1800
Current (Amps)	144	131	81.0	24.2	10.0
Torque (ft-lb)	119	99.0	146	59.4	0.00



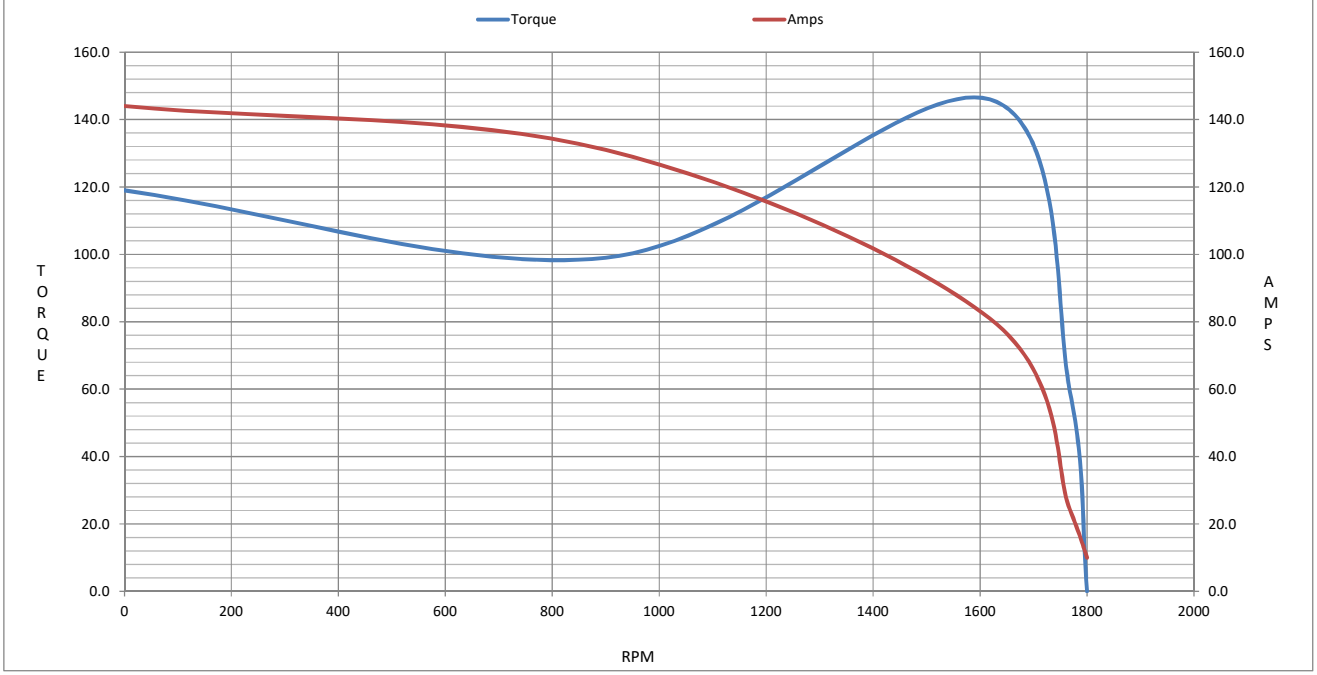
Information Block

HP	20.0	
Sync. RPM	1800	
Frame	256	
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	3.8	Lb-Ft²
Ref Wdg	HE31604010	NONE
Sound Pressure @ 1M	65	dBA
VFD Rating	VARIABLE 10:1	
Outline Dwg	SS208560-256T	
Conn. Diag	EE7300	
Additional Specifications:		
0		
0		

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.3410	0.2030	1.0370	1.2500	26.9800

Speed -Torque Curve



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DATA VOLTS: 460

CERTIFICATION DATA SHEET

MODEL #: 256THFCD9026
CAT #: W553A

CONN. DIAGRAM: EE7300
OUTLINE: SS208560-256T
WINDING: HE31604010 NONE 8

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
20	14.9	1800	1768	256T	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV.(Ft)
3	60	460	24.2	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	93.0	3/4 LD EFF	93.0	1/2 LD EFF	91.7	GTD EFF	ELECT. TYPE
F.L. PF	83.5	3/4 LD PF	79.0	1/2 LD PF	69.0	92.4	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)	
59.4 LB-FT	144	119 LB-FT 200%	146 LB-FT 246%	60	

SOUND PRESSURE @	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX. MOTOR
65 dBA	74 dBA	3.8 LB-FT²	125 LB-FT²	20 SEC.	2	357 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 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
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)	
0.341	0.203	1.037	1.25	26.98	0.080	

If Inverter equals NONE, contact factory for further information

NOTES
*
*

INVERTER TORQUE: 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.