marathon®

Severe Duty Motors

Model No: 286TTFCD6570
Catalog No: E491A

Severe Duty Motor, 30 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 286T Frame, TEFC

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Product Information Packet: Model No: 286TTFCD6570, Catalog No: E491A Severe Duty Motor, 30 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 286T Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**30 Hp**
Output KW	**22.4 kW**	Voltage	**230/460 V**
Speed	**1770 r/min**	Synchronous RPM	**1800 r/min**
Service Factor	**1.15**	Frame	**286T**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**93.6 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**71.0/35.5 A**
Power Factor	**84**	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

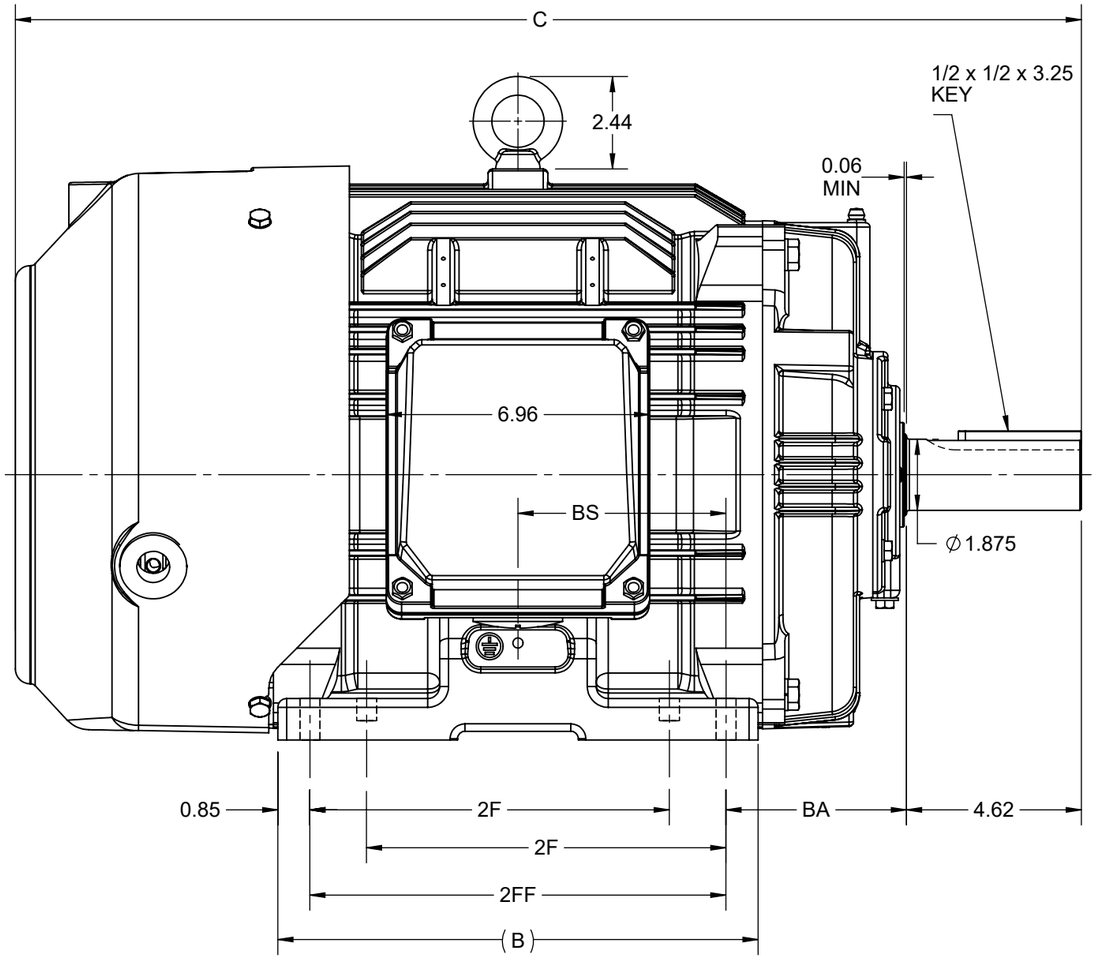
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**4**	Rotation	**Reversible**
Resistance Main	**.292 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**T**	Shaft Diameter	**1.875 in**
Assembly/Box Mounting	**F1/F2 Capable**	Inverter Load	**Constant 2:1/Variable 10:1**

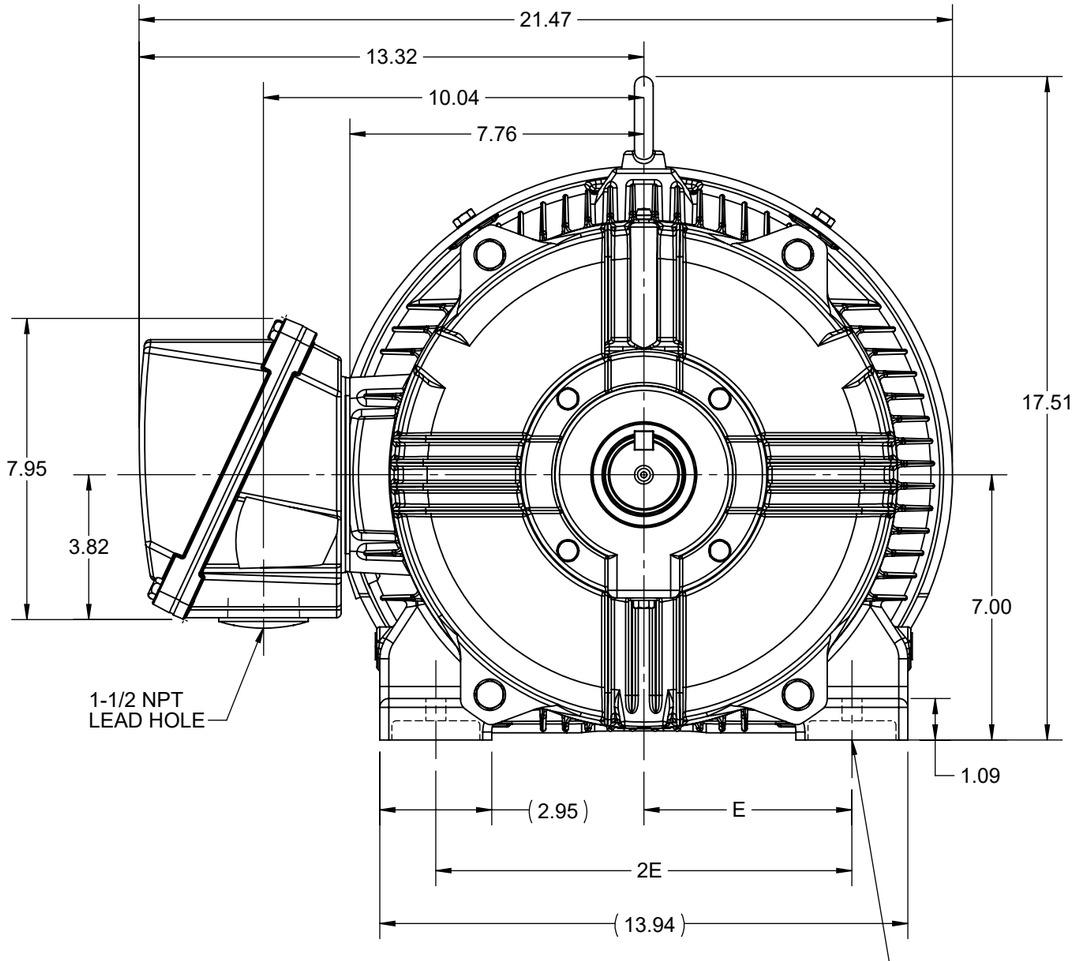
Drawings

Connection Drawing	**EE7308**	Outline Drawing	**SS312942-200**

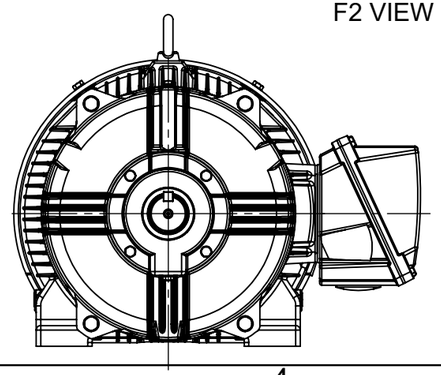
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DASH NO.	B	C	E	2E	2F	2FF	BA	BS	MOUNTING	FRAME
100	10.83	26.64	5.50	11.00	---	9.50	4.75	4.75	F1 OR F2	284T
200	12.68	28.14			9.50	11.00		5.50		284/286T





F2 VIEW



DRAWING REVISION: E	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
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DRAWN BY: BISWA	marathon™	
DATE: 24/12/2018	DESCRIPTION: OUTLINE 284/286T FR-NEMA-SD & IEEE841	
APPROVED BY: SBD		
DATE: 24/12/2018		
REFERENCE	MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE: B / DRAWING NUMBER: SS312942	SHEET: 1 OF 1

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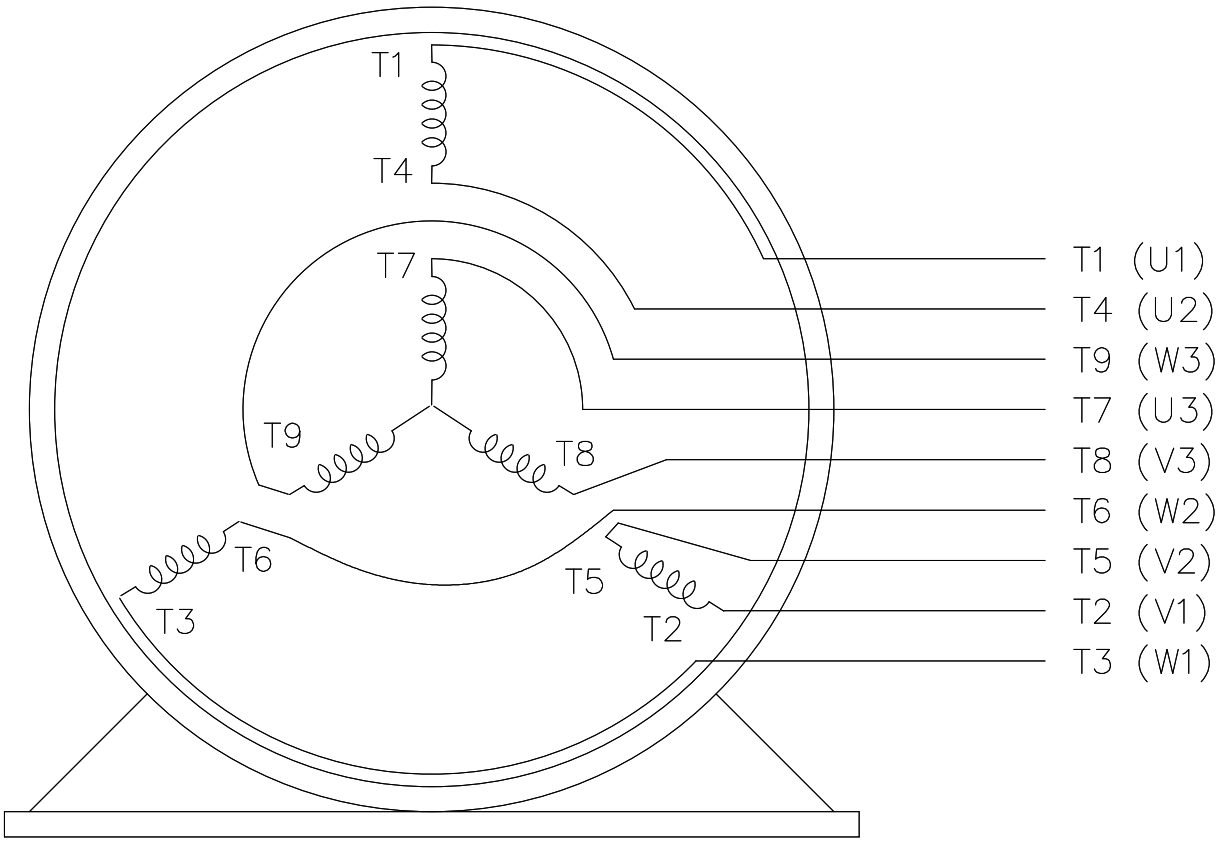
THREE PHASE
DUAL VOLTAGE MOTOR

HIGH VOLTAGE

(U1) T1 — L1
(V1) T2 — L2
(W1) T3 — L3
(U2) T4
(U3) T7
(V2) T5
(V3) T8
(W2) T6
(W3) T9

LOW VOLTAGE

(U1) T1
(U3) T7 — L1
(V1) T2
(V3) T8 — L2
(W1) T3
(W3) T9 — L3
(U2) T4
(V2) T5
(W2) T6



VIEW OF TERMINAL END

REF.
WINDING DIAGRAM

T8Y, T2Y, T2BL, T4BX, T2EC, T2G
T6BZ, T2B, T6BL, T4AV, T6B, T4B

OPTIONAL CORD CONNECTION

L1 — WHITE
L2 — RED
L3 — BLACK

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

REQUEST NUMBER DESCRIPTION
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DRAWN BY	RM
DATE	11/20/1990
APPROVED BY	SAS
DATE	04/24/2003
REFERENCE	
THIRD ANGLE PROJECTION	

marathon™

DESCRIPTION
CONN DIAGRAM-EXTERNAL
3Ø - DUAL VOLTAGE MOTOR

MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
A	4 of 6 EE7308	1 OF 1

Data Sheet

Date: 5/6/2020
Customer:
Attention:
Submitted by:

marathon® Motors

286TTFCD6570

Submittal

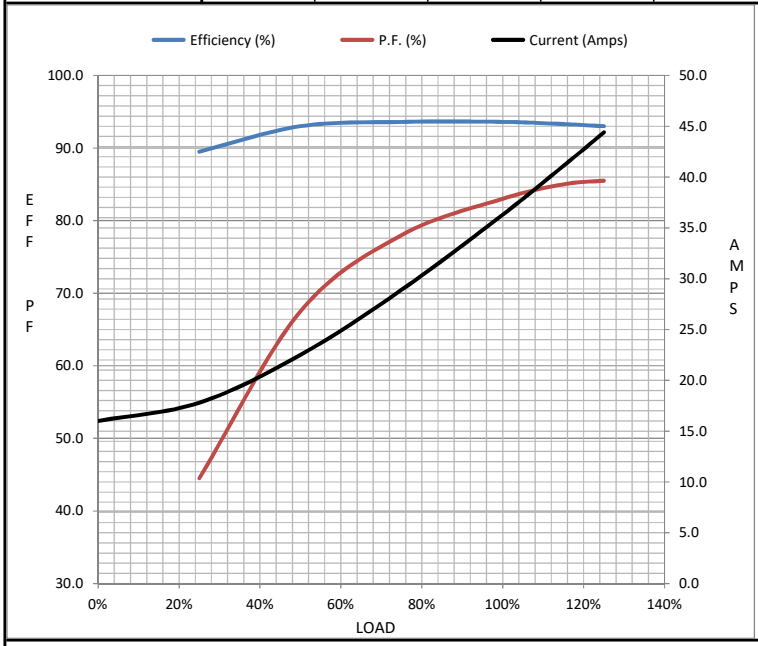
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	16.0	17.8	22.5	28.9	36.3	41.1	44.4	217	
Torque (ft-lb)	0.00	22.0	44.0	66.5	89.0	102	111	178	
RPM	1800	1795	1788	1782	1775	1,770	1768	0	
Efficiency (%)		89.5	93.0	93.6	93.6	93.3	93.0		
P.F. (%)	5.0	44.5	67.5	78.0	83.0	85.0	85.5	36.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1650	1775	1800
Current (Amps)	217	180	129	36.3	16.0
Torque (ft-lb)	178	151	227	89.0	0.00



Information Block

HP	30.0	
Sync. RPM	1800	
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	40	° C
Elevation	3,300	feet
Rotor/Shaft wk²	5.7	Lb-Ft²
Ref Wdg	HE31804006 NONE	
Sound Pressure @ 1M	75	dBA
VFD Rating	CONSTANT 20:1	
Outline Dwg	SS312942-286T	
Conn. Diag	EE7308	

Additional Specifications:

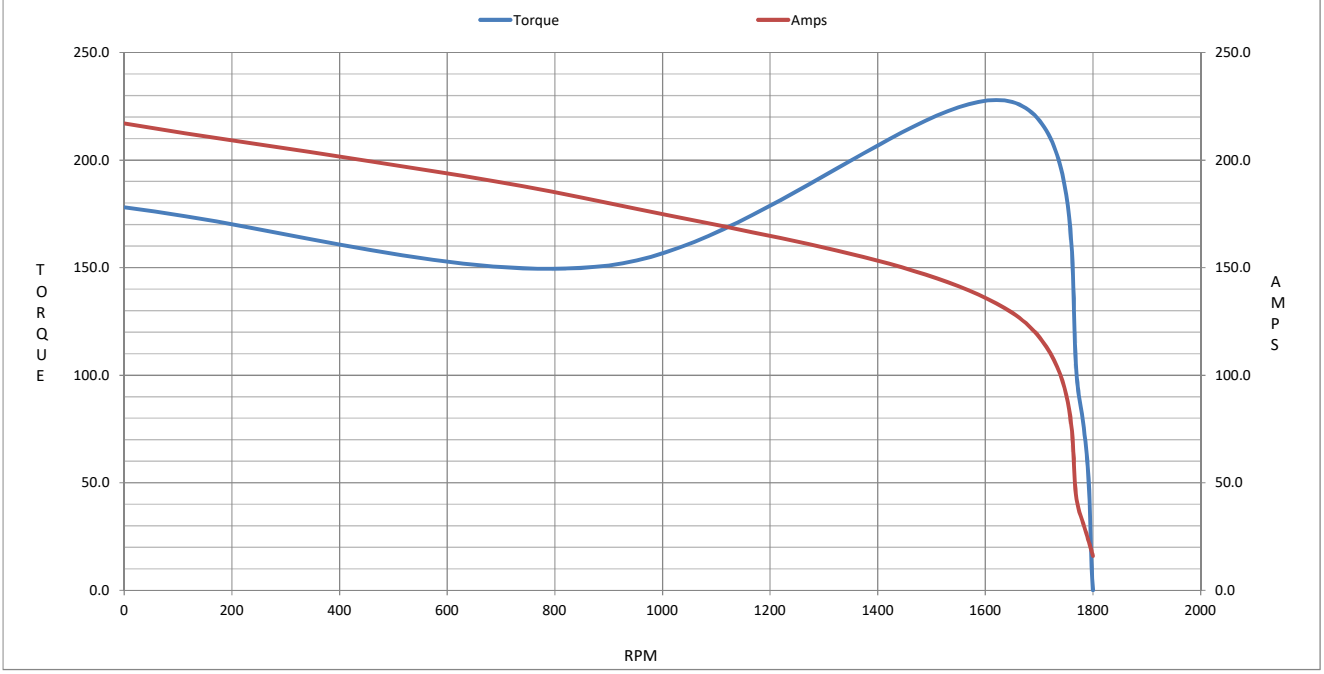
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EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.1680	0.1110	0.6170	0.8510	16.7270

Speed -Torque Curve



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marathon® Motors

DATA VOLTS: 460

CERTIFICATION DATA SHEET

MODEL #: 286TTFCD6570
CAT #: E491A

CONN. DIAGRAM: EE7308
OUTLINE: SS312942-286T
WINDING: HE31804006 NONE 7

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
30	22.4	1800	1775	286T	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV. (Ft)
3	60	230/460	72.5/36.5	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	93.6	3/4 LD EFF	93.6	1/2 LD EFF	93.0	GTD EFF	ELECT. TYPE
F.L. PF	83.0	3/4 LD PF	78.0	1/2 LD PF	67.5	93.0	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)	
89.0 LB-FT	217	178 LB-FT 200%	227 LB-FT 255%	65	

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX. MOTOR
75 dBA	84 dBA	5.7 LB-FT²	225 LB-FT²	20 SEC.	2	529 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	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)	
0.168	0.111	0.617	0.851	16.727	0.080	

NOTES
*
*

If Inverter equals NONE, contact factory for further information
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: 3/31/2020

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