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Severe Duty Motors

Model No: 284TSHFCD9005
Catalog No: W559A

Severe Duty Motor, 25 HP, 3 Ph, 60 Hz, 575 V, 3600 RPM, 284TS Frame, TEFC

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Product Information Packet: Model No: 284TSHFCD9005, Catalog No: W559A Severe Duty Motor, 25 HP, 3 Ph, 60 Hz, 575 V, 3600 RPM, 284TS Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**25 Hp**
Output KW	**18.7 kW**	Voltage	**575 V**
Speed	**3555 r/min**	Synchronous RPM	**3600 r/min**
Service Factor	**1.15**	Frame	**284TS**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**91.7 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**24.0 A**
Power Factor	**86**	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	**56**	Number of Speeds	**1**
Hazardous Location	**DIVISION 2 T2B**		

Technical Specifications

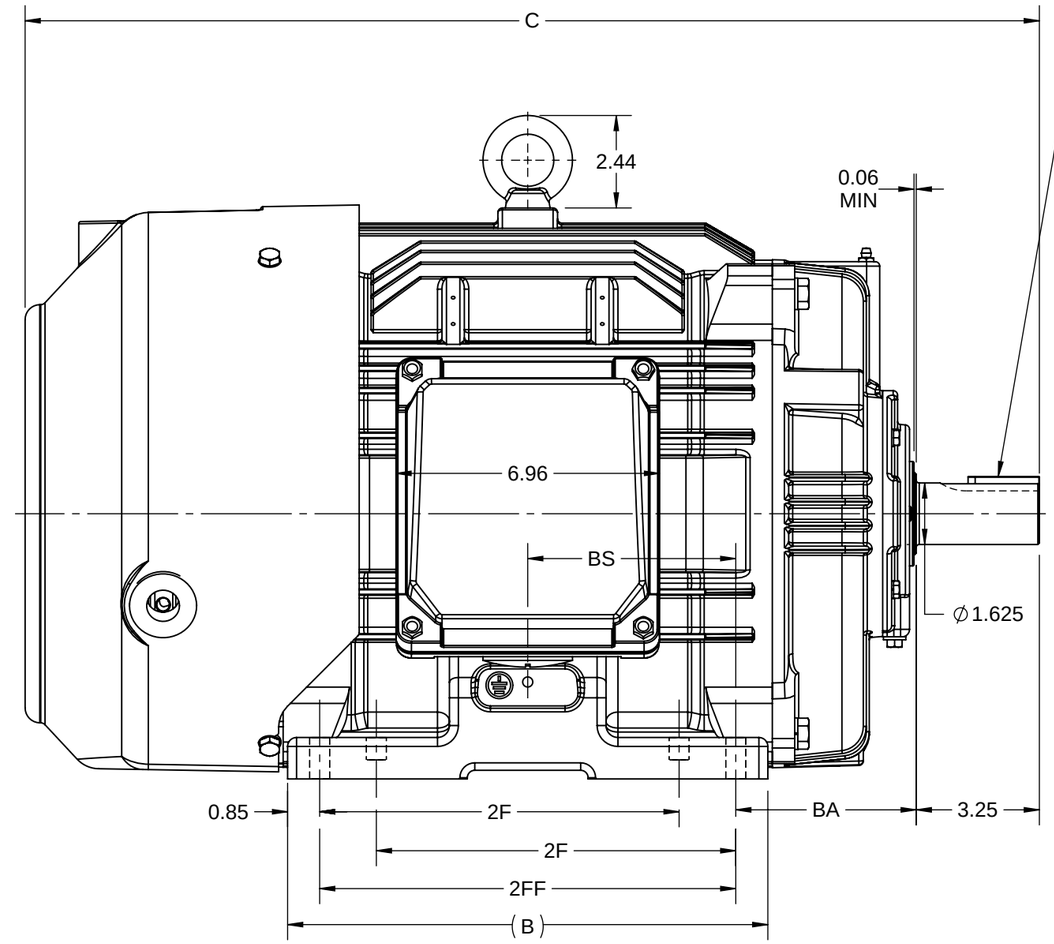
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**2**	Rotation	**Reversible**
Resistance Main	**.395 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**TS**	Shaft Diameter	**1.625 in**
Assembly/Box Mounting	**F1/F2 Capable**	Inverter Load	**Constant 2:1/Variable 10:1**

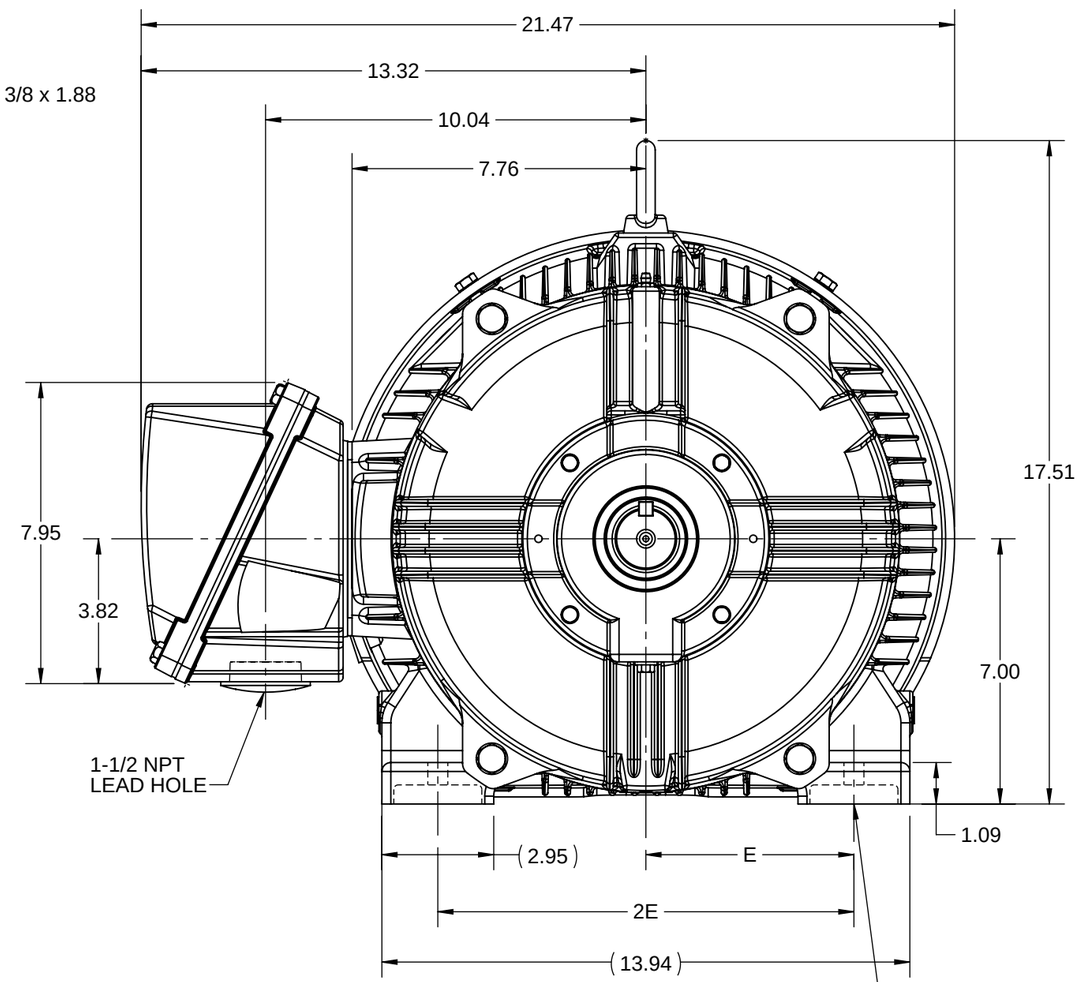
Drawings

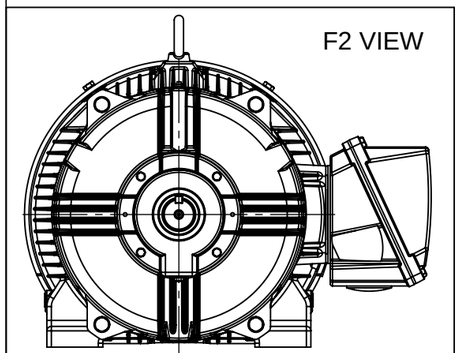
Connection Drawing	**EE7300**	Outline Drawing	**SS312943-100**

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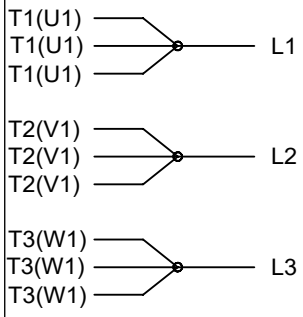
DRAWN BY	DESCRIPTION
BISWA	OUTLINE
DATE 24/12/2018	284/286TS FR-NEMA-SD & IEEE841
APPROVED BY SBD	
DATE 24/12/2018	
REFERENCE	MATERIAL / PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B / DRAWING NUMBER SS312943 / SHEET 1 OF 1

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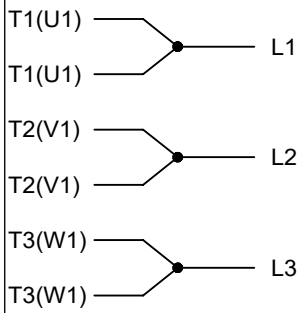
THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS

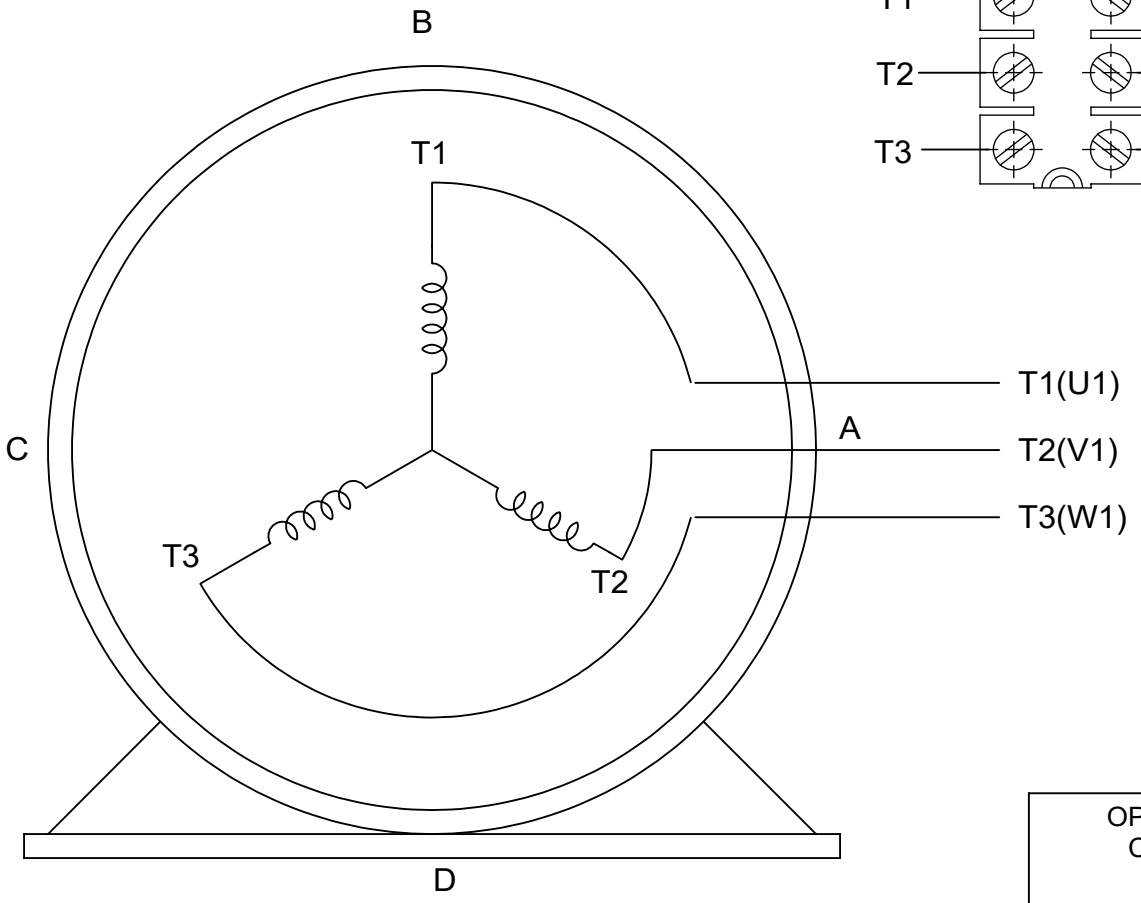
IF MOTOR HAS
9 LEADS



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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DRAWN BY: DA	
DATE: 03-26-1993	
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: 5/6/2020
Customer:
Attention:
Submitted by:

marathon® Motors

284TSHFCD9005

Submittal

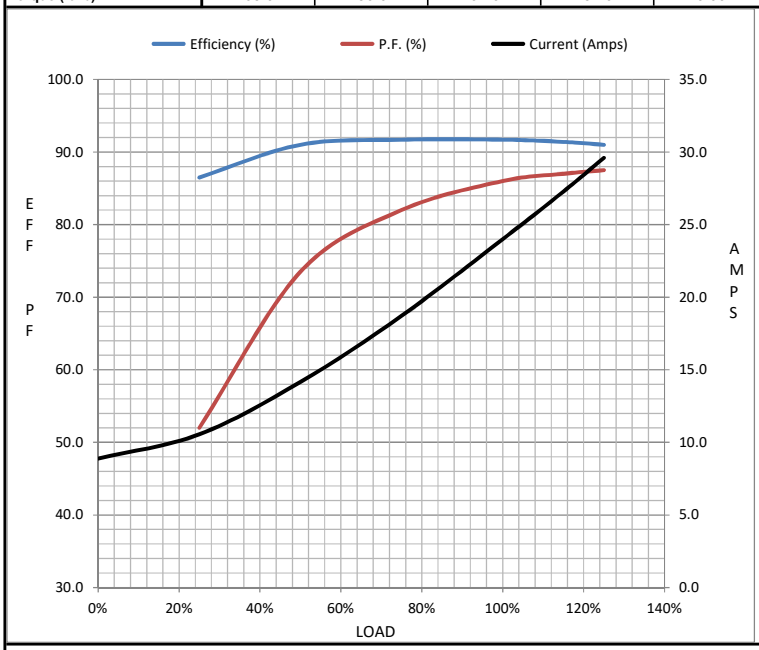
Data @ 575 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	8.9	10.6	14.2	18.7	24.0	27.3	29.6	145	
Torque (ft-lb)	0.00	9.2	18.5	27.5	37.0	42.5	46.3	65.0	
RPM	3600	3588	3578	3565	3555	3,546	3540	0	
Efficiency (%)		86.5	91.0	91.7	91.7	91.4	91.0		
P.F. (%)	8.0	52.0	73.5	82.0	86.0	87.0	87.5	35.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3330	3555	3600
Current (Amps)	145	133	84.0	24.0	8.9
Torque (ft-lb)	65.0	56.0	94.0	37.0	0.00



Information Block

HP	25.0	
Sync. RPM	3600	
Frame	284	
Enclosure	TEFC	
Construction	TFC	
Voltage	575	V
Frequency	60	Hz
Design	B	
LR Code letter	G	
Service Factor	1.15	
Temp Rise @ FL	55	° C
Duty	CONT	
Ambient	40	° C
Elevation	3,300	feet
Rotor/Shaft wk²	2.90	Lb-Ft²
Ref Wdg	HE31802004 NONE	
Sound Pressure @ 1M	75	dBA
VFD Rating	CONSTANT 2:1/VARIABLE 10:1	
Outline Dwg	SS312943	
Conn. Diag	EE7300	

Additional Specifications:

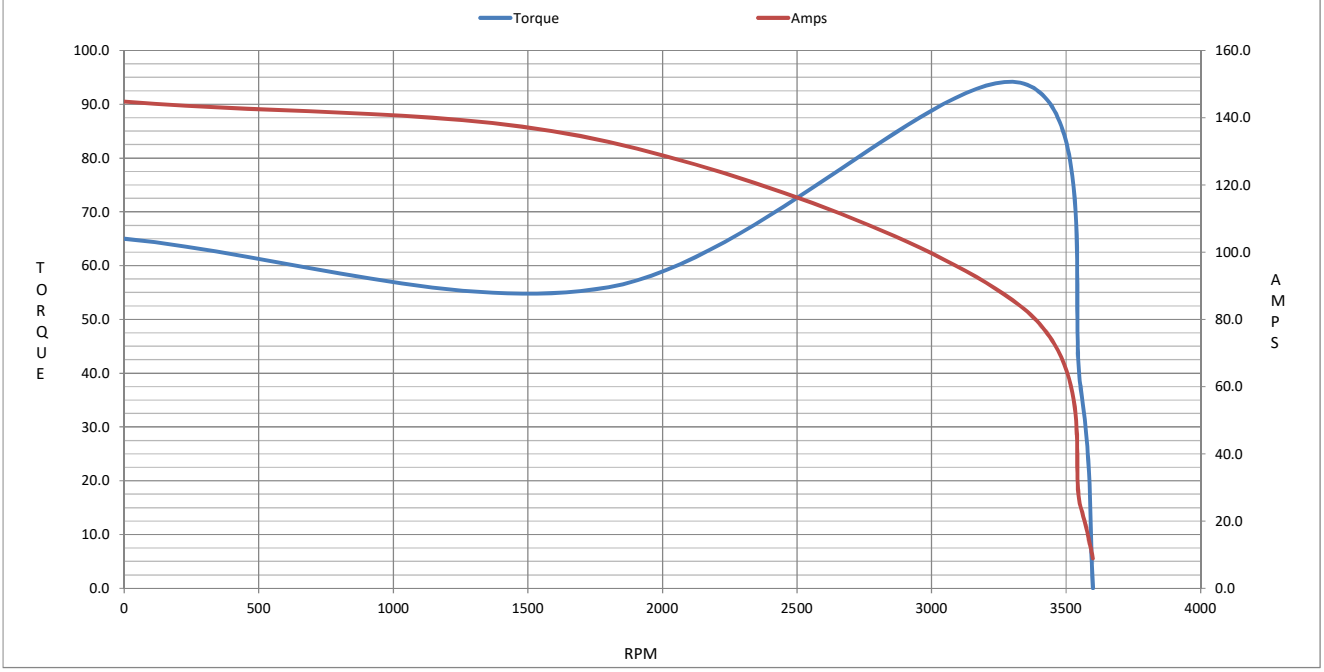
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EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.4080	0.1770	1.2900	1.3500	38.0950

Speed -Torque Curve



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DATA VOLTS: 575

CERTIFICATION DATA SHEET

MODEL #: 284TSHFCD9005
CAT #: W559A

CONN. DIAGRAM: EE7300
OUTLINE: SS312943
WINDING: HE31802004 NONE 3

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
25	18.7	3600	3555	284TS	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV. (Ft)
3	60	575	24	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	91.7	3/4 LD EFF	91.7	1/2 LD EFF	91.0	GTD EFF	ELECT. TYPE	
F.L. PF	86.0	3/4 LD PF	82.0	1/2 LD PF	73.5	91.0	SQ CAGE INV RATED	

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)	
37.0 LB-FT	145	65.0 LB-FT 176%	94.0 LB-FT 254%	55	

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX. MOTOR
75 dBA	84 dBA	2.90 LB-FT²	30 LB-FT²	20 SEC.	2	434 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)	
0.6375	0.2765625	2.015625	2.109375	59.5234375	0.080	

NOTES
*
*

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

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