marathon®

Severe Duty Motors

Model No: 324THFCD9080
Catalog No: W563A

Severe Duty Motor, 25 HP, 3 Ph, 60 Hz, 575 V, 1200 RPM, 324T Frame, TEFC

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Product Information Packet: Model No: 324THFCD9080, Catalog No: W563A Severe Duty Motor, 25 HP, 3 Ph, 60 Hz, 575 V, 1200 RPM, 324T Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**25 Hp**
Output KW	**18.7 kW**	Voltage	**575 V**
Speed	**1184 r/min**	Synchronous RPM	**1200 r/min**
Service Factor	**1.15**	Frame	**324T**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**93 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**24.0 A**
Power Factor	**78.5**	Duty	**Continuous**
Insulation Class	**H**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6312**
Opp Drive End Bearing Size	**6212**	UL	**Listed**
CSA	**Y**	CE	**Y**
IP Code	**56**	Number of Speeds	**1**
Hazardous Location	**DIVISION 2 T2B**		

Technical Specifications

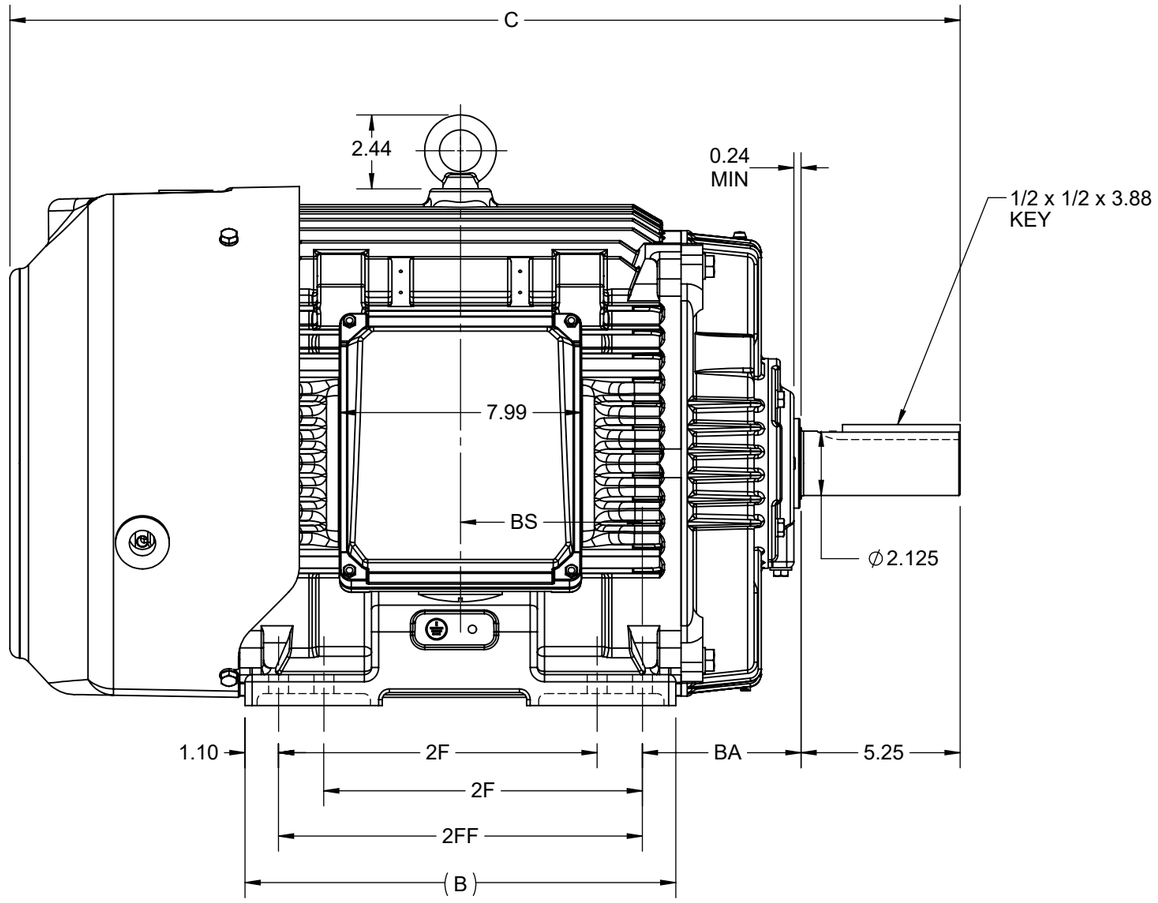
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**6**	Rotation	**Reversible**
Resistance Main	**.327 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**T**	Shaft Diameter	**2.125 in**
Assembly/Box Mounting	**F1/F2 Capable**	Inverter Load	**Constant 2:1/Variable 10:1**

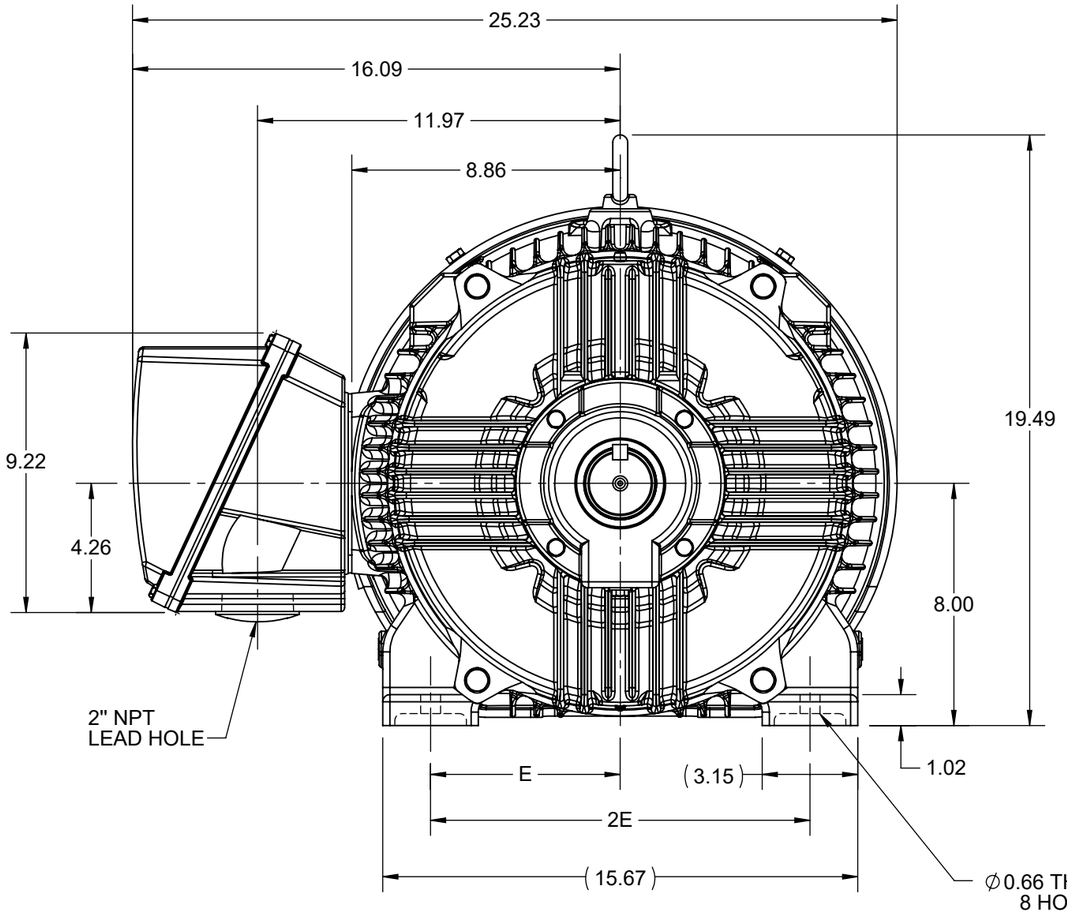
Drawings

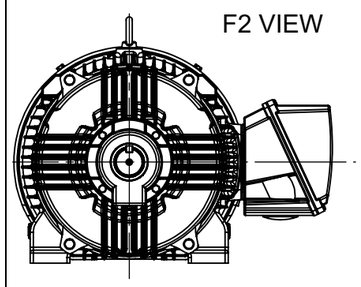
Connection Drawing	**EE7300**	Outline Drawing	**SS312939-100**

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DASH NO.	B	C	E	2E	2F	2FF	BA	BS	MOUNTING	FRAME
100	12.71	29.85	6.25	12.50	---	10.50	5.25	5.25	F1 OR F2	324T
200	14.21	31.35			10.50	12.00		6.00		324/326T







DRAWING REVISION	REVISION BY	REV DATE/© DATE
E	SB	08/11/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0023556	SBD	08/11/2025

REQUEST NUMBER DESCRIPTION
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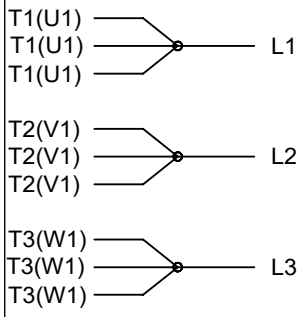
DRAWN BY	DESCRIPTION
BISWA	OUTLINE
DATE	324/326T FR-NEMA-SD & IEEE841
24/12/2018	
APPROVED BY	
SBD	
DATE	
24/12/2018	
REFERENCE	MATERIAL / PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B / DRAWING NUMBER SS312939 / SHEET 1 OF 1

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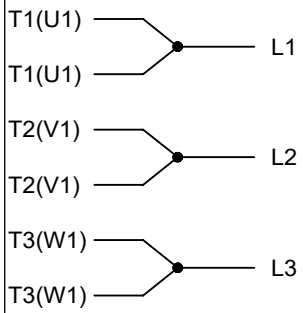
THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS

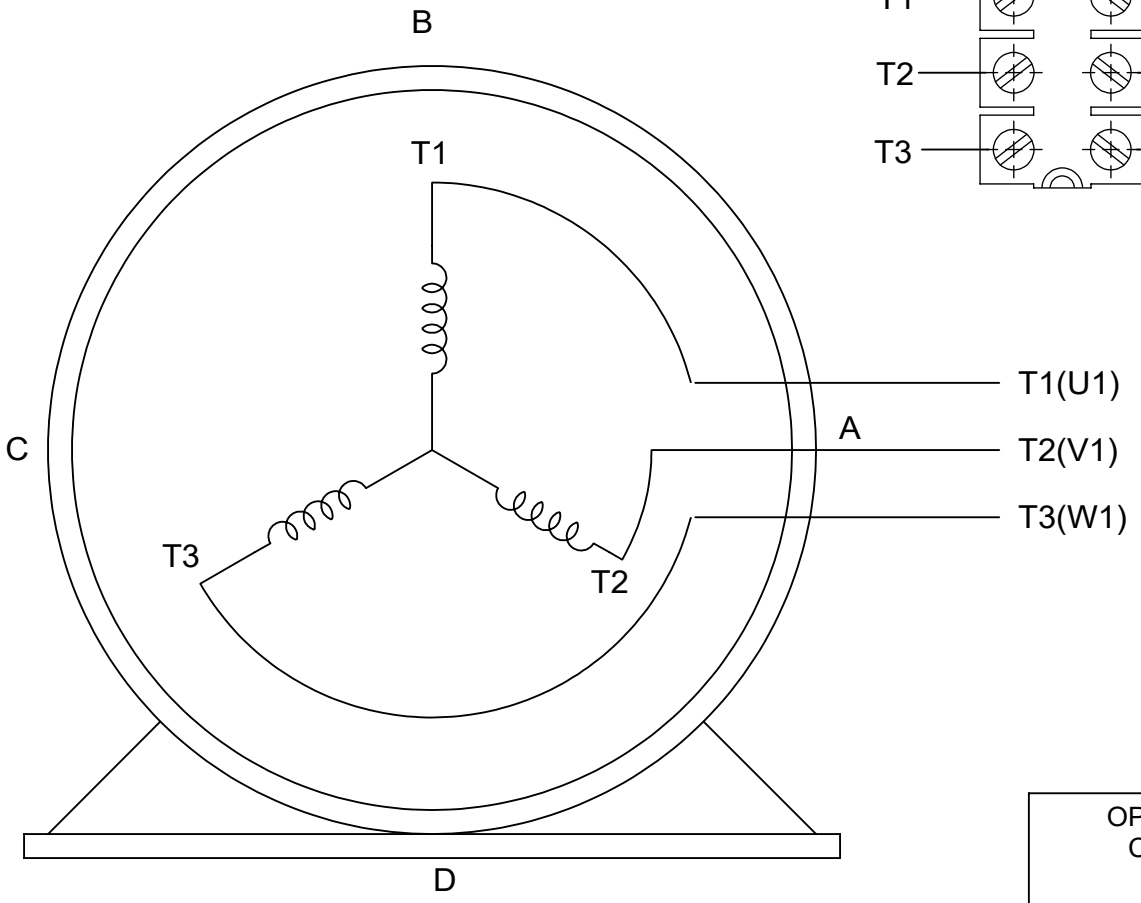
IF MOTOR HAS
9 LEADS



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

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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

Uncontrolled Copy

Data Sheet

Date: 5/6/2020

Customer:

Attention:

Submitted by:

marathon® Motors

324THFCD9080

Submittal

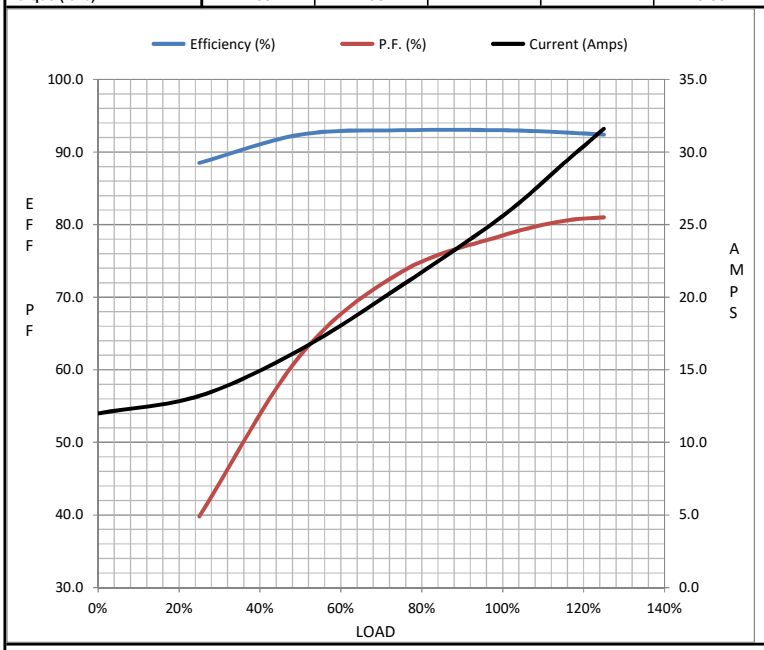
Data @ 575 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	12.0	13.2	16.4	20.8	25.6	29.2	31.6	146	
Torque (ft-lb)	0.00	27.5	55.0	82.5	111	127	139	200	
RPM	1200	1196	1192	1188	1184	1,180	1180	0	
Efficiency (%)		88.5	92.4	93.0	93.0	92.7	92.4		
P.F. (%)	4.5	39.8	62.0	73.5	78.5	80.5	81.0	36.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1138	1184	1200
Current (Amps)	146	116	84.0	25.6	12.0
Torque (ft-lb)	200	168	272	111	0.00



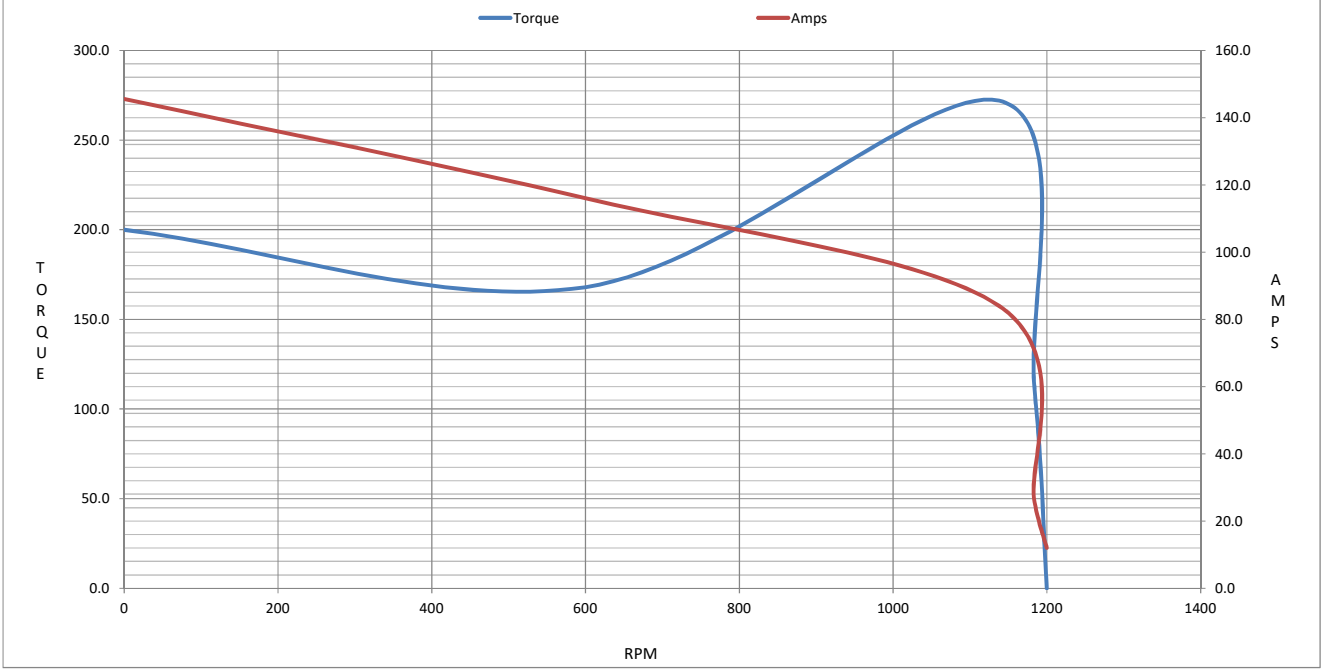
Information Block

HP	25.0	
Sync. RPM	1200	
Frame	324	
Enclosure	TEFC	
Construction	TFC	
Voltage	575	V
Frequency	60	Hz
Design	B	
LR Code letter	G	
Service Factor	1.15	
Temp Rise @ FL	60	° C
Duty	CONT	
Ambient	40	° C
Elevation	3,300	feet
Rotor/Shaft wk²	11.8	Lb-Ft²
Ref Wdg	HA32006005 NONE	
Sound Pressure @ 1M	65	dBA
VFD Rating	CONSTANT 2:1/VARIABLE 10:1	
Outline Dwg	SS312939	
Conn. Diag	EE7300	
Additional Specifications:		
0		
0		

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.3160	0.1920	1.2410	1.9150	26.7790

Speed -Torque Curve



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DATA VOLTS: 575

CERTIFICATION DATA SHEET

REFERENCE MODEL #: 324THFCD9080
CONN. DIAGRAM: EE7300 **CAT #:** W563A
OUTLINE: SS312939
WINDING: HA32006005 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	1200	1184	324T	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV. (Ft)
3	60	575	25.6	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	93.0	3/4 LD EFF	93.0	1/2 LD EFF	92.4	GTD EFF	ELECT. TYPE
F.L. PF	78.5	3/4 LD PF	73.5	1/2 LD PF	62.0	92.4	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)	
111 LB-FT	146	200 LB-FT 180%	272 LB-FT 245%	60	

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.
65 dBA	74 dBA	11.8 LB-FT²	375 LB-FT²	20 SEC.	2	601 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 6312	BALL 6212	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)	
0.49375	0.3	1.9390625	2.9921875	41.8421875	0.080	

*
N
O
T
E
S
*

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:
DATE: 5/13/2020

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