marathon®

General Purpose Motors

Model No: 449TSTDN16040
Catalog No: U796

General Purpose Motor, 450 & 350 HP, 3 Ph, 60 & 50 Hz, 460 & 380 V, 1800 RPM, 449TS Frame, DP

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Product Information Packet: Model No: 449TSTDN16040, Catalog No: U796 General Purpose Motor, 450 & 350 HP, 3 Ph, 60 & 50 Hz, 460 & 380 V, 1800 RPM, 449TS Frame, DP

Nameplate Specifications

Phase	**3**	Output HP	**450 & 350 Hp**
Output KW	**340.0 & 260.0 kW**	Voltage	**460 & 380 V**
Speed	**1782 & 1482 r/min**	Synchronous RPM	**1800 & 1500 r/min**
Service Factor	**1.0 & 1.0**	Frame	**449TS**
Enclosure	**Drip Proof**	Thermal Protection	**No Protection**
Efficiency	**96.2 & 95.8 %**	Ambient Temperature	**50 °C**
Frequency	**60 & 50 Hz**	Current	**505 & 475 A**
Power Factor	**86**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**F**	Drive End Bearing Size	**6314**
Opp Drive End Bearing Size	**6314**	UL	**No**
CSA	**Y**	CE	**Y**
IP Code	**12**	Number of Speeds	**1**

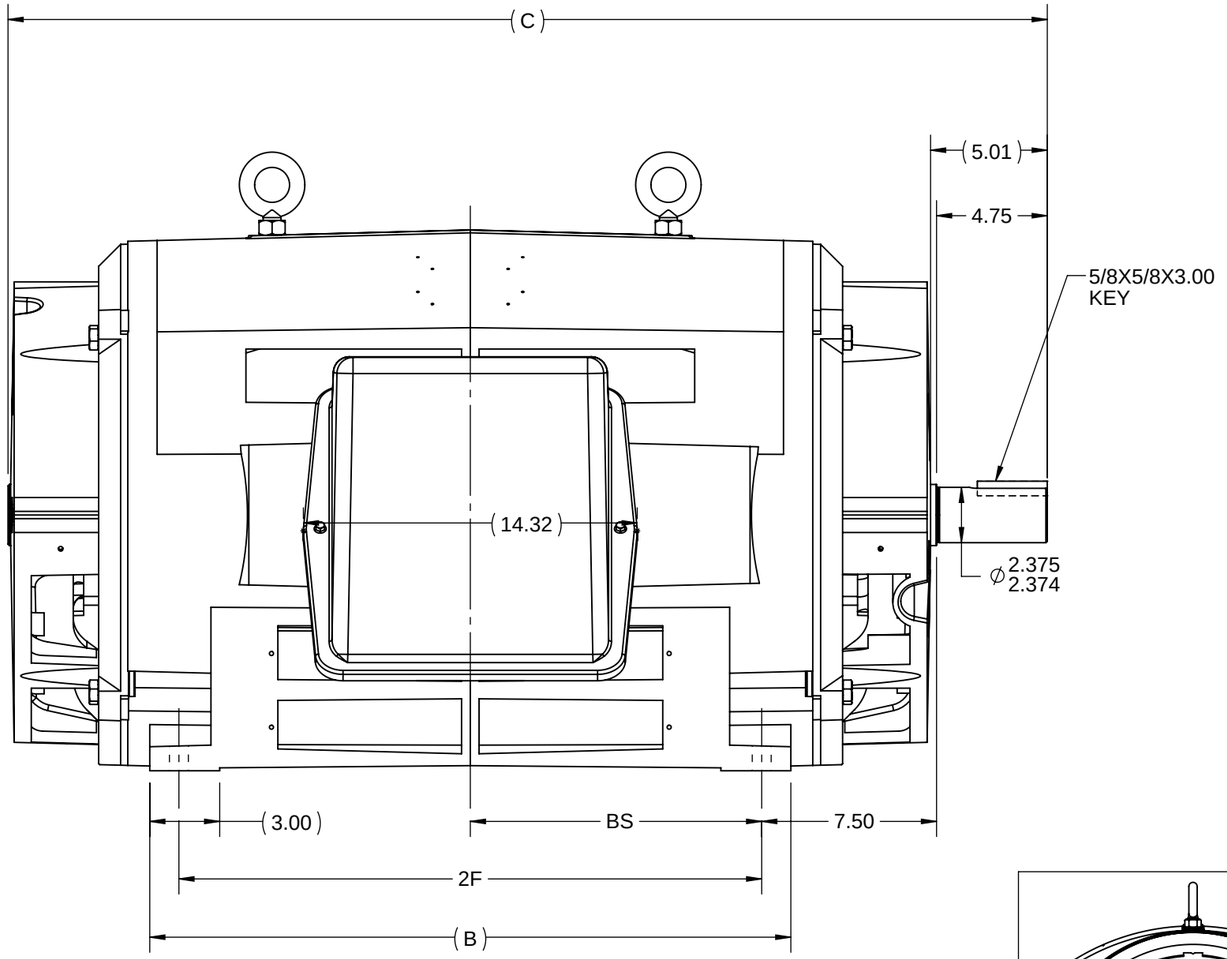
Technical Specifications

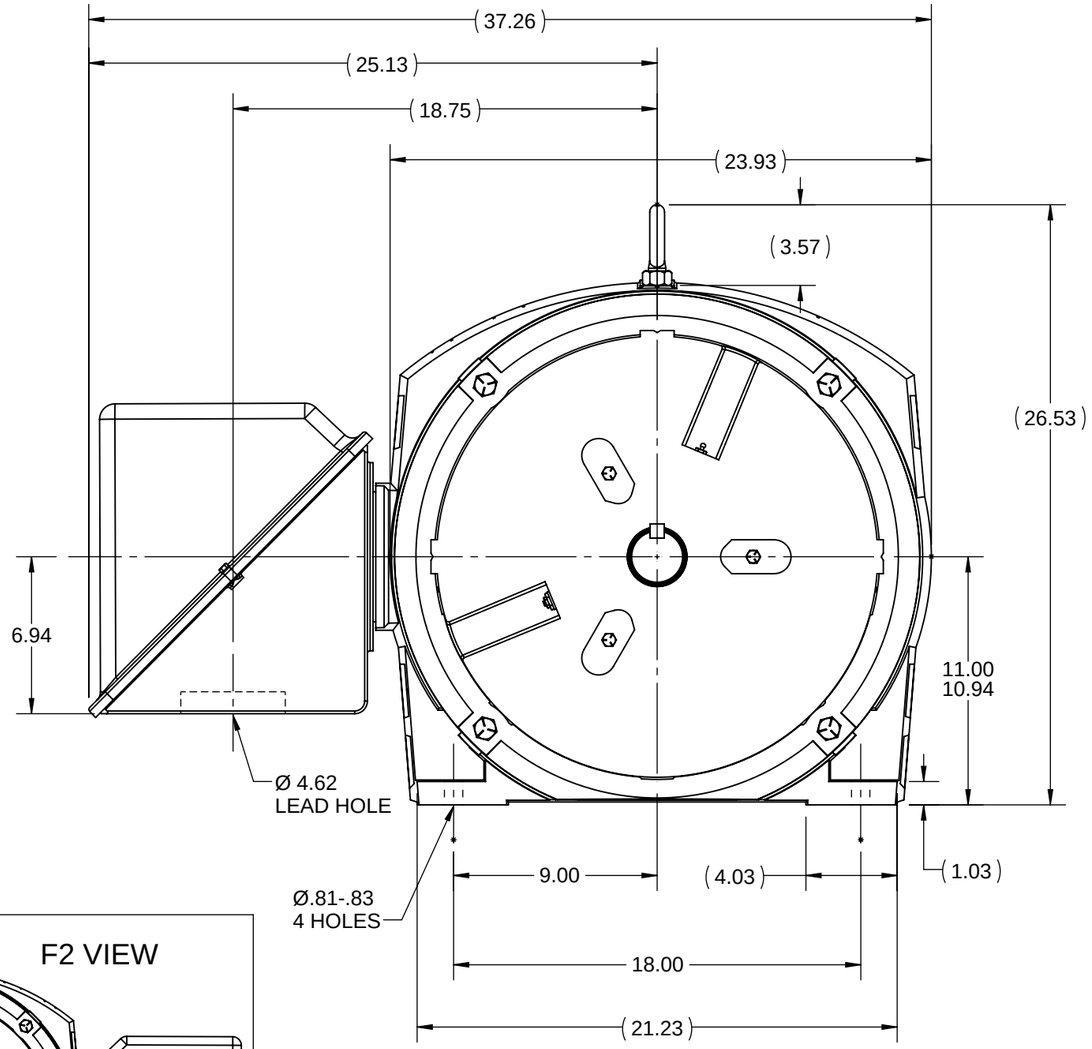
Electrical Type	**Squirrel Cage Induction Run**	Starting Method	**Part Wdg Start & Wye Start Delta Run**
Poles	**4**	Rotation	**Reversible**
Resistance Main	**.008 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**TS**	Overall Length	**44.5 in**
Frame Length	**29.38 in**	Shaft Diameter	**2 3/8 in**
Shaft Extension	**5 in**	Assembly/Box Mounting	**F1/F2 Capable**

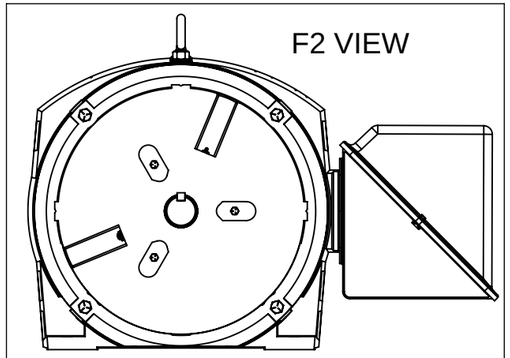
Drawings

Connection Drawing	**A-EE7300BH**	Outline Drawing	**B-SS514570-2938**

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NOTES:
1. C.BOX CAN BE ROTATED IN 90° STEPS.
2. C.BOX CAN BE MOUNTED ON OPPSITE SIDE BY REMOVING BRACKETS & TURNING FRAME 180°.
3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	C	B	2F	BS
2438	447TS	39.58	22.50	20.00	10.00
2938	449TS	44.58	27.50	25.00	12.50

DRAWING REVISION	REVISION BY	REV DATE/© DATE
D	SV	05/28/2026
REQUEST NUMBER	APPROVED BY	DATE
CR-0026424	RMS	05/28/2026

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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TOLERANCES (EXCEPT AS NOTED):

DEC.	INCH	mm	ANGLE
.X	±0.1	[±3]	±7' 30"
.XX	±0.03	[±0.8]	
.XXX	±0.005	[±0.13]	
.XXXX	±0.0005	[±0.013]	

REMOVE BURRS & BREAK SHARP
EDGES: .003/.015 [.08/.38] X 45°
CORNER FILLETS: R.02 [.5]
MACHINED SURFACES: 200 / INCH 5.1 / mm
mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

DRAWN BY	
KL	
DATE	
06-19-1993	
APPROVED BY	
JL	
DATE	
06-20-1993	
REFERENCE	
THIRD ANGLE PROJECTION	

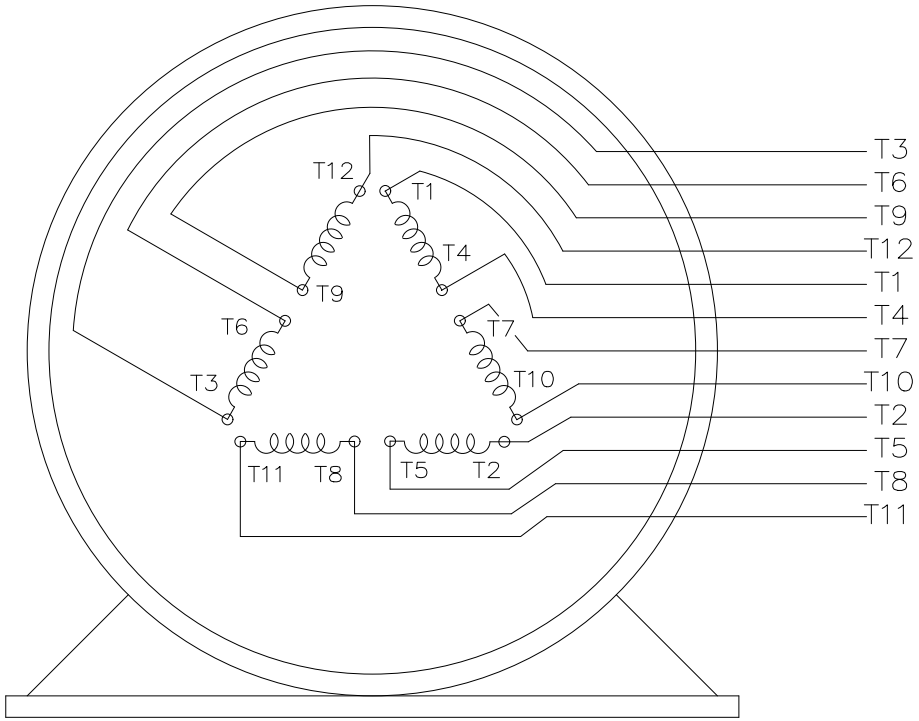
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DESCRIPTION
OUTLINE
447/449TS FR. - DR. PR.

MATERIAL | PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
B	SS514570	1 OF 1

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VIEW OF TERMINAL END

T12(W4)
T1(U1)
T6(W2)
T7(U3)
LINE 1

T2(V1)
T4(U2)
T8(V3)
T10(U4)
LINE 2

T3(W1)
T5(V2)
T9(W3)
T11(V4)
LINE 3

DRAWING REVISION: E	REVISION BY: SB	REV DATE/ © DATE: 08/04/2025
REQUEST NUMBER: CR-0023654	APPROVED BY: SBD	DATE: 08/04/2025
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: RJW	marathon™	
DATE: 02/11/2005		
APPROVED BY: GK	DESCRIPTION: CONNECTION DIAGRAM 12 LEAD - SINGLE VOLTAGE	
DATE: 02/11/2005		
REFERENCE	MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE: A / DRAWING NUMBER: EE7300BH	SHEET: 1 OF 1

Data Sheet

Date: 6/20/2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon electric

449TSTDN16040

Submittal

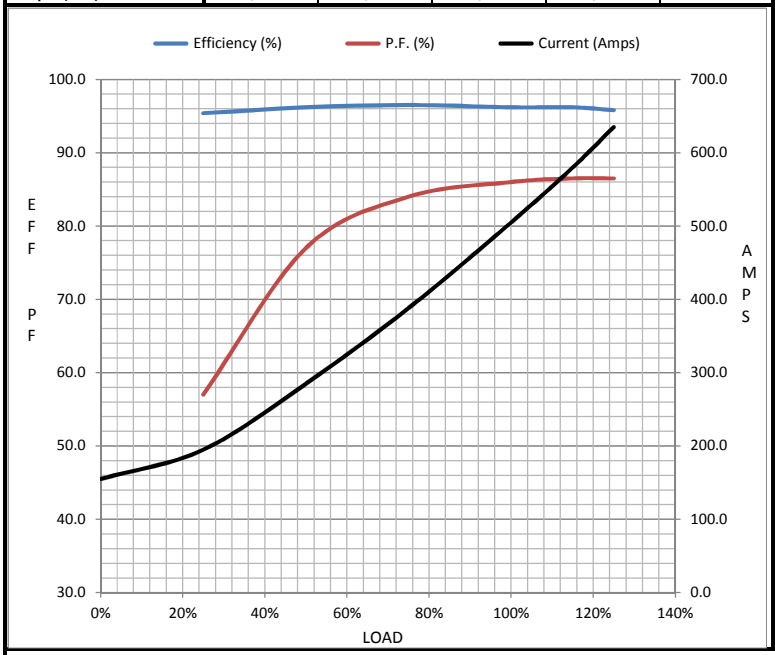
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	155	195	285	388	505	580	635	2,950	
Torque (ft-lb)	0.00	329	659	992	1,324	1,526	1,661	2,500	
RPM	1800	1795	1792	1788	1782	1,778	1775	0	
Efficiency (%)		95.4	96.2	96.5	96.2	96.2	95.8		
P.F. (%)	3.0	57.0	77.0	84.0	86.0	86.5	86.5	32.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1725	1782	1800
Current (Amps)	2,950	2,750	1,650	505	155
Torque (ft-lb)	2,500	2,000	3,000	1,324	0.00



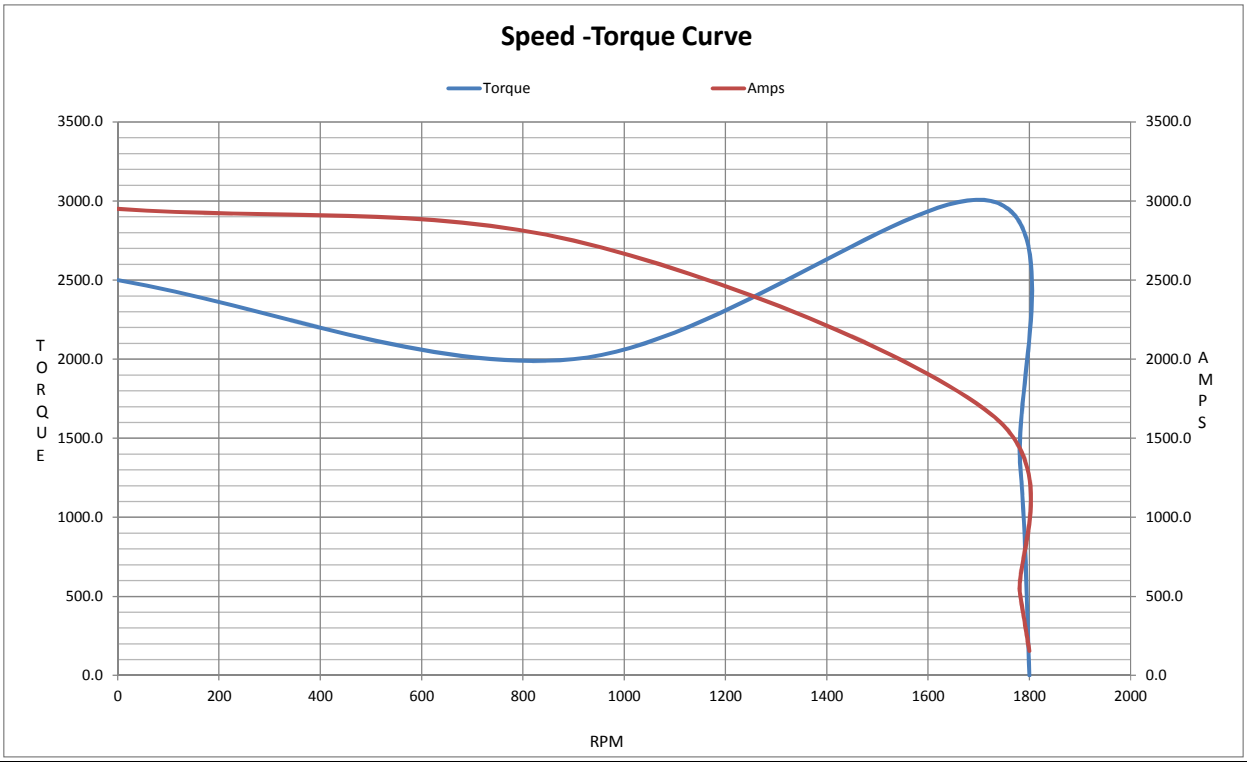
Information Block

HP	450.0
Sync. RPM	1800
Frame	449
Enclosure	DP
Construction	TDN
Voltage	460#380 V
Frequency	60 Hz
Design	B
LR Code letter	F
Service Factor	1.15
Temp Rise @ FL	75 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	92.0 Lb-Ft²
Ref Wdg	T4494183 NONE
Sound Pressure @ 1M	82 dBA
VFD Rating	NONE
Outline Dwg	B-SS514570-2938
Conn. Diag	A-EE7300BH
Additional Specifications:	
0	
0	

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0060	0.0050	0.0490	0.0770	1.7290

Speed -Torque Curve



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CERTIFICATION DATA SHEET

Model#:	449TSTDN16040 AA	**WINDING#:**	T4494183 NONE 1
CONN. DIAGRAM:	A-EE7300BH	**ASSEMBLY:**	F1/F2 CAPABLE
OUTLINE:	B-SS514570-2938		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
450&350	340&260	1800	1782&1482	449TS	DP	F	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	460#380	505&475	PWS & YDRUN	CONTINUOUS	F1	1.0/1.0	50	3300

FULL LOAD EFF: 96.2&95.8	3/4 LOAD EFF: 96.5	1/2 LOAD EFF: 96.2	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 86&86	3/4 LOAD PF: 84	1/2 LOAD PF: 77	95.8	SQ CAGE IND RUN	155

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
1324 LB-FT	2950	2500 LB-FT 188	3000 LB-FT 234	75

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
82 dBA	92 dBA	92 LB-FT^2	1600 LB-FT^2	15 SEC.	1	2850 LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL 6314	BALL 6314	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
NONE	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: NONE
INV. HP SPEED RANGE: NONE

ENCODER: NONE
NONE NONE
NONE NONE PPR

BRAKE: NONE NONE
NONE P/N NONE
NONE NONE
NONE FT-LB NONE V NONE Hz

* NOTES *

DATE: 06/21/2017 06:47:59 AM
FORM 3531 REV.3 02/07/99
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