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General Purpose Motors

Model No: 449TSTDN16005
Catalog No: U797

General Purpose Motor, 500 & 400 HP, 3 Ph, 60 & 50 Hz, 460 & 380 V, 3600 RPM, 449TS Frame, DP

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Product Information Packet: Model No: 449TSTDN16005, Catalog No: U797 General Purpose Motor, 500 & 400 HP, 3 Ph, 60 & 50 Hz, 460 & 380 V, 3600 RPM, 449TS Frame, DP

Nameplate Specifications

Phase	**3**	Output HP	**500 & 400 Hp**
Output KW	**370.0 & 300.0 kW**	Voltage	**460 & 380 V**
Speed	**3572 & 2972 r/min**	Synchronous RPM	**3600 & 3000 r/min**
Service Factor	**1.15 & 1.15**	Frame	**449TS**
Enclosure	**Drip Proof**	Thermal Protection	**No Protection**
Efficiency	**96.2 & 95.8 %**	Ambient Temperature	**40 °C**
Frequency	**60 & 50 Hz**	Current	**538 & 525 A**
Power Factor	**90**	Duty	**Continuous**
Insulation Class	**H**	Design Code	**B**
KVA Code	**F**	Drive End Bearing Size	**6314**
Opp Drive End Bearing Size	**6314**	UL	**Recognized**
CSA	**Y**	CE	**Y**
IP Code	**12**	Number of Speeds	**1**

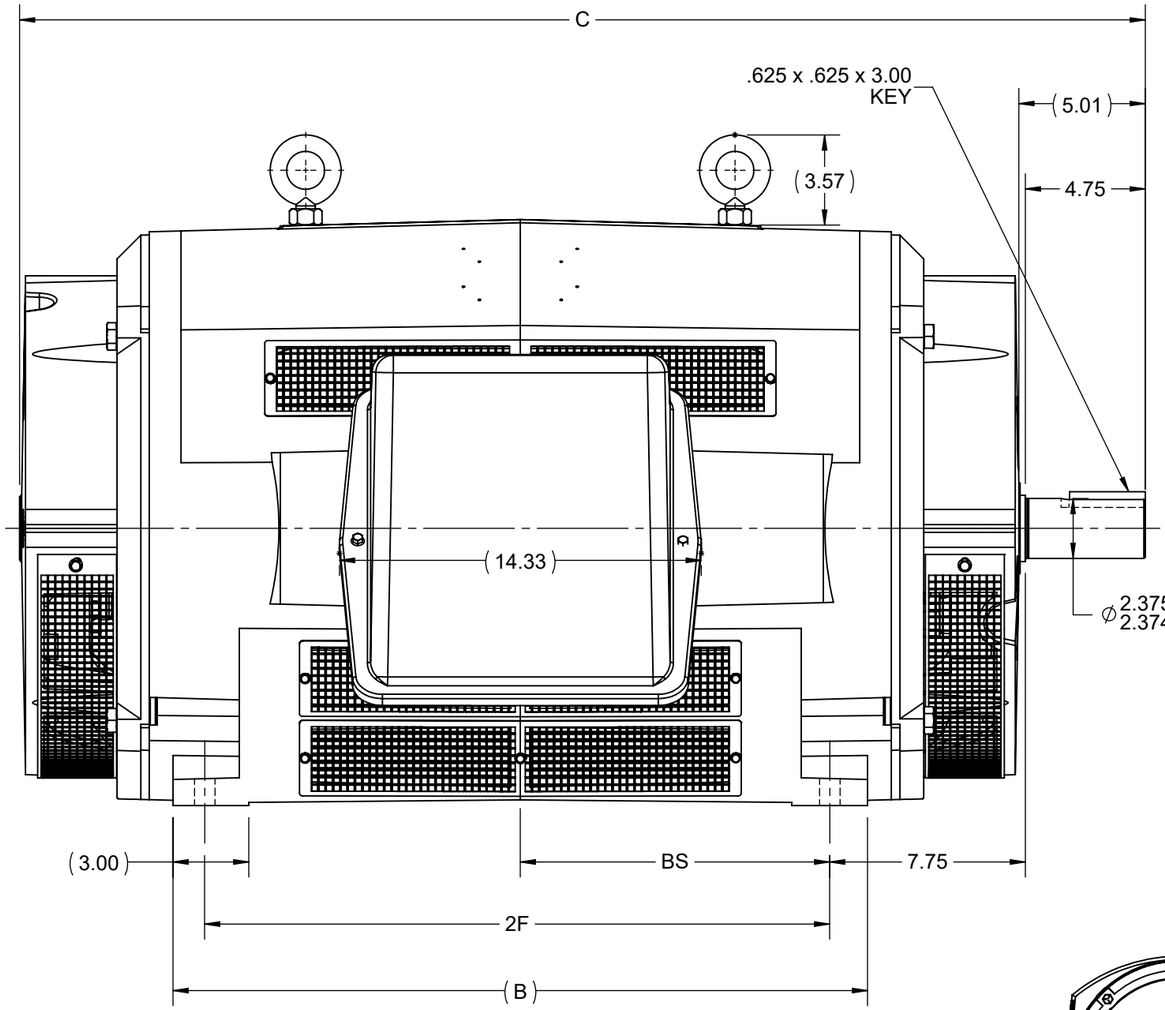
Technical Specifications

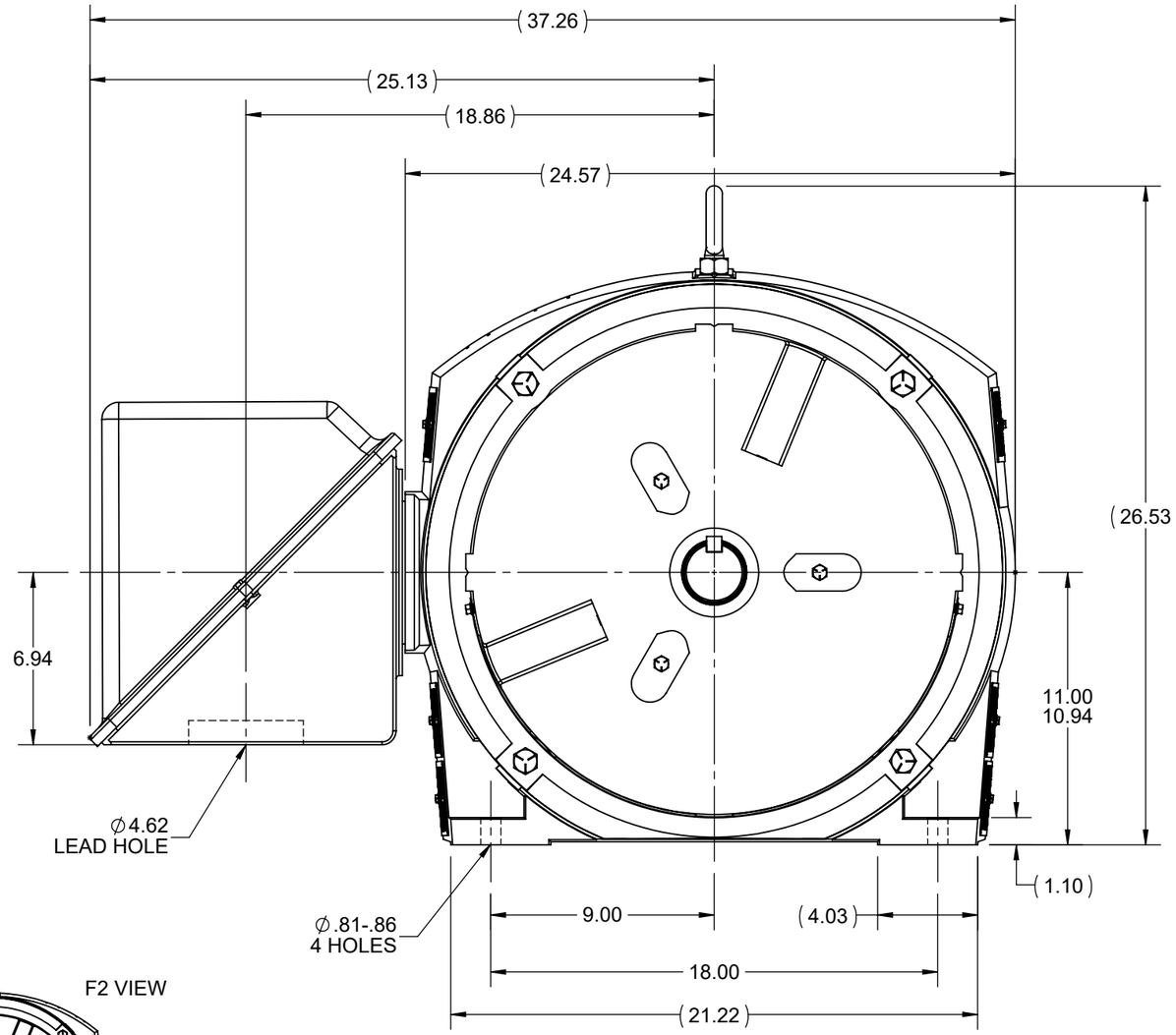
Electrical Type	**Squirrel Cage Induction Run**	Starting Method	**Part Wdg Start & Wye Start Delta Run**
Poles	**2**	Rotation	**Reversible**
Resistance Main	**.0076 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**TS**	Overall Length	**44.5 in**
Frame Length	**29.38 in**	Shaft Diameter	**2 3/8 in**
Shaft Extension	**5.02 in**	Assembly/Box Mounting	**F1/F2 Capable**

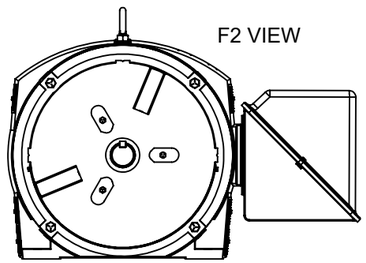
Drawings

Connection Drawing	**A-EE7300BH**	Outline Drawing	**B-SS516498-2938**

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

DASH	FRAME	B	C	2F	BS
2438	447TS	22.50	39.58	19.75	10.00
2938	449TS	27.50	44.58	24.75	12.50

DRAWING REVISION	REVISION BY	REV DATE/© DATE
D	SB	08/21/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0023600	SBD	08/21/2025

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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TOLERANCES (EXCEPT AS NOTED):

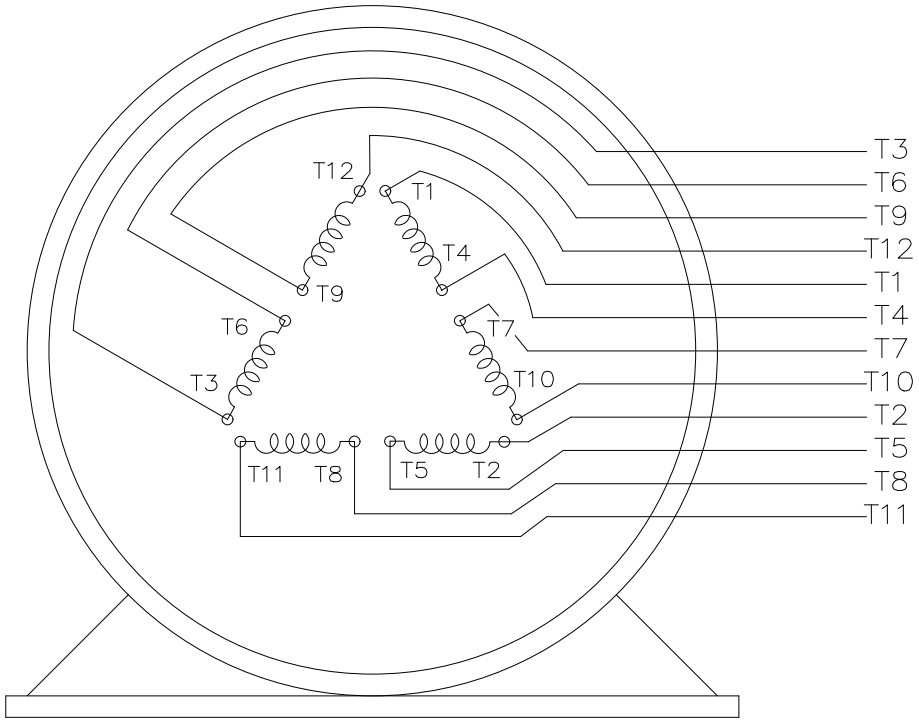
DEC.	INCH	mm	ANGLE
.X	±0.1	[±3]	±7' 30"
.XX	±0.03	[±0.8]	
.XXX	±0.005	[±0.13]	
.XXXX	±0.0005	[±0.013]	

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

DRAWN BY	DESCRIPTION
KL	OUTLINE
DATE	447/449TS FR - DR. PR. - SCREENED
03-30-1998	
APPROVED BY	
DJK	
DATE	
03-30-1998	
REFERENCE	MATERIAL / PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B / DRAWING NUMBER SS516498 / SHEET 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: 6/19/2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon electric

449TSTDN16005

Submittal

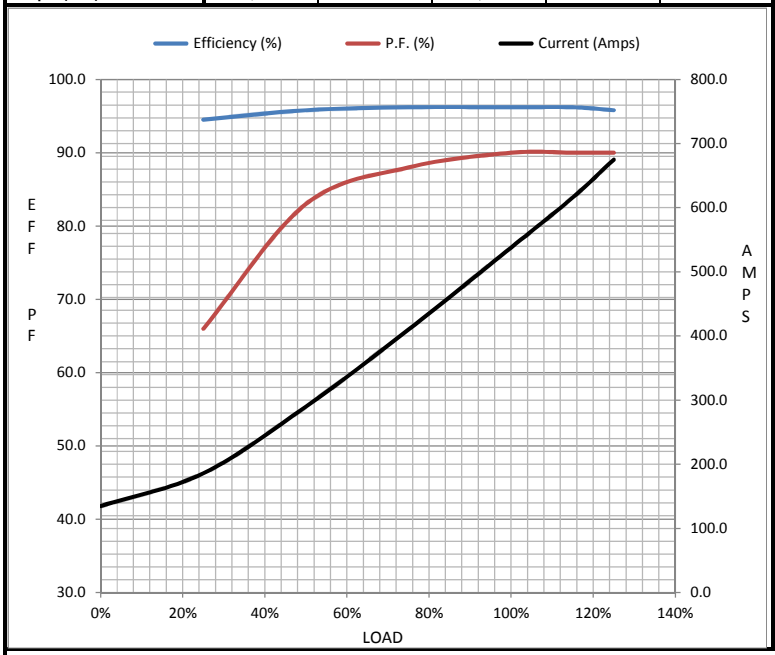
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	135	186	290	410	538	616	675	3,250	
Torque (ft-lb)	0.00	183	366	551	735	846	920	1,075	
RPM	3600	3592	3586	3580	3572	3,568	3563	0	
Efficiency (%)		94.5	95.8	96.2	96.2	96.2	95.8		
P.F. (%)	4.0	66.0	83.0	88.0	90.0	90.0	90.0	28.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3440	3572	3600
Current (Amps)	3,250	2,900	2,000	538	135
Torque (ft-lb)	1,075	875	1,800	735	0.00



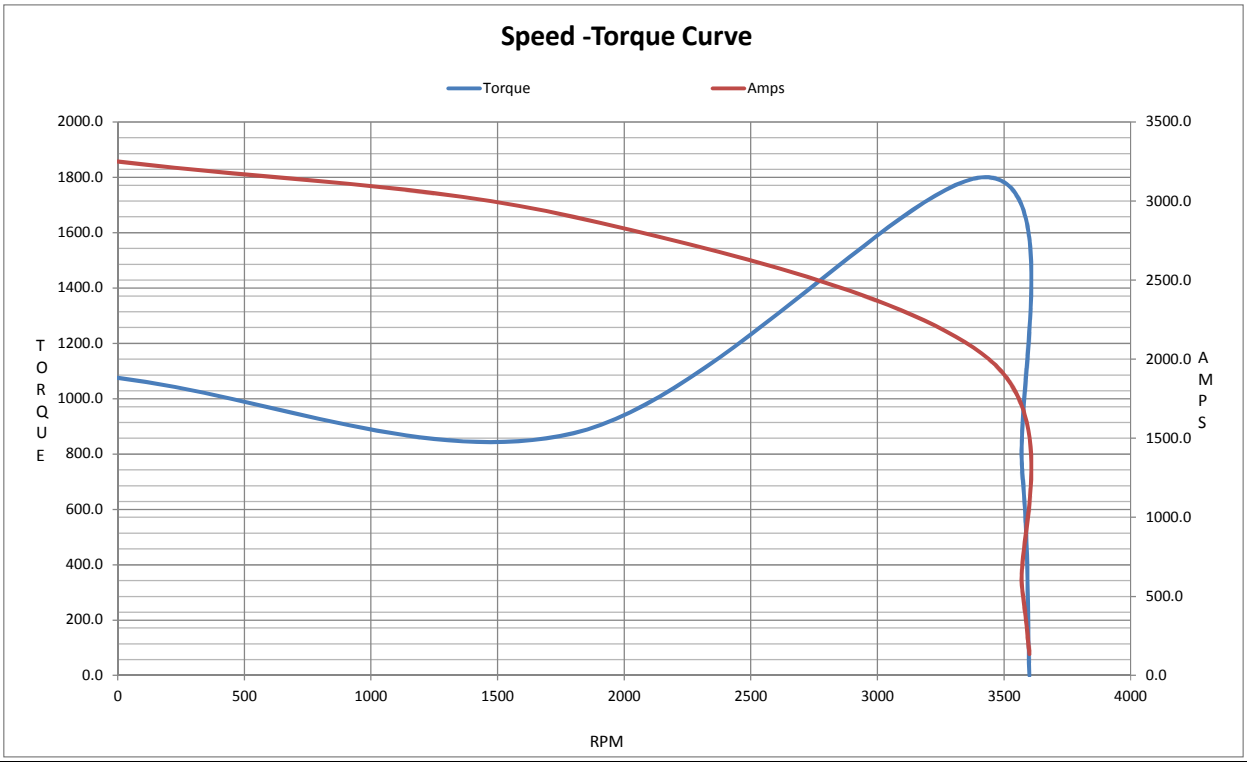
Information Block

HP	500.0
Sync. RPM	3600
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	70 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	51.0 Lb-Ft²
Ref Wdg	T4492129 NONE
Sound Pressure @ 1M	85 dBA
VFD Rating	NONE
Outline Dwg	B-SS516498-2938
Conn. Diag	A-EE7300BH
Additional Specifications:	
0	
0	

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0050	0.0040	0.0510	0.0500	2.0220

Speed -Torque Curve



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CERTIFICATION DATA SHEET

Model#:	449TSTDN16005 CB	**WINDING#:**	T4492129 NONE 1
CONN. DIAGRAM:	A-EE7300BH	**ASSEMBLY:**	F1/F2 CAPABLE
OUTLINE:	B-SS516498-2938		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
500&400	370&300	3600	3572&2972	449TS	DP	F	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	460#380	538&525	PWS & YDRUN	CONTINUOUS	H1	1.15/1.15	40	3300

FULL LOAD EFF: 96.2&95.8	3/4 LOAD EFF: 96.2	1/2 LOAD EFF: 95.8	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 90&90	3/4 LOAD PF: 88	1/2 LOAD PF: 83	95.8	SQ CAGE IND RUN	135

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
735 LB-FT	3250	1075 LB-FT 145	1800 LB-FT 250	70

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
85 dBA	95 dBA	51 LB-FT^2	200 LB-FT^2	10 SEC.	1	2700 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

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