marathon®

Explosion Proof Motors

Model No: 254TTGN16541
Catalog No: U027A

Explosion Proof Motor, 15 HP, 3 Ph, 60 Hz, 575 V, 1800 RPM, 254T Frame, EPFC

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Product Information Packet: Model No: 254TTGN16541, Catalog No: U027A Explosion Proof Motor, 15 HP, 3 Ph, 60 Hz, 575 V, 1800 RPM, 254T Frame, EPFC

Nameplate Specifications

Phase	**3**	Output HP	**15 Hp**
Output KW	**11.2 kW**	Voltage	**575 V**
Speed	**1775 r/min**	Synchronous RPM	**1800 r/min**
Service Factor	**1.15**	Frame	**254T**
Enclosure	**Explosion Proof Fan cooled**	Thermal Protection	**Thermostat**
Efficiency	**92.4 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**15.1 A**
Power Factor	**81**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6309**
Opp Drive End Bearing Size	**6210**	UL	**UL Listed And CSA Certified**
CSA	**Y**	CE	**N**
IP Code	**54**	Number of Speeds	**1**
Hazardous Location	**DIV 1 EXP PROOF CL I GR CD CL II GR FG T3B**		

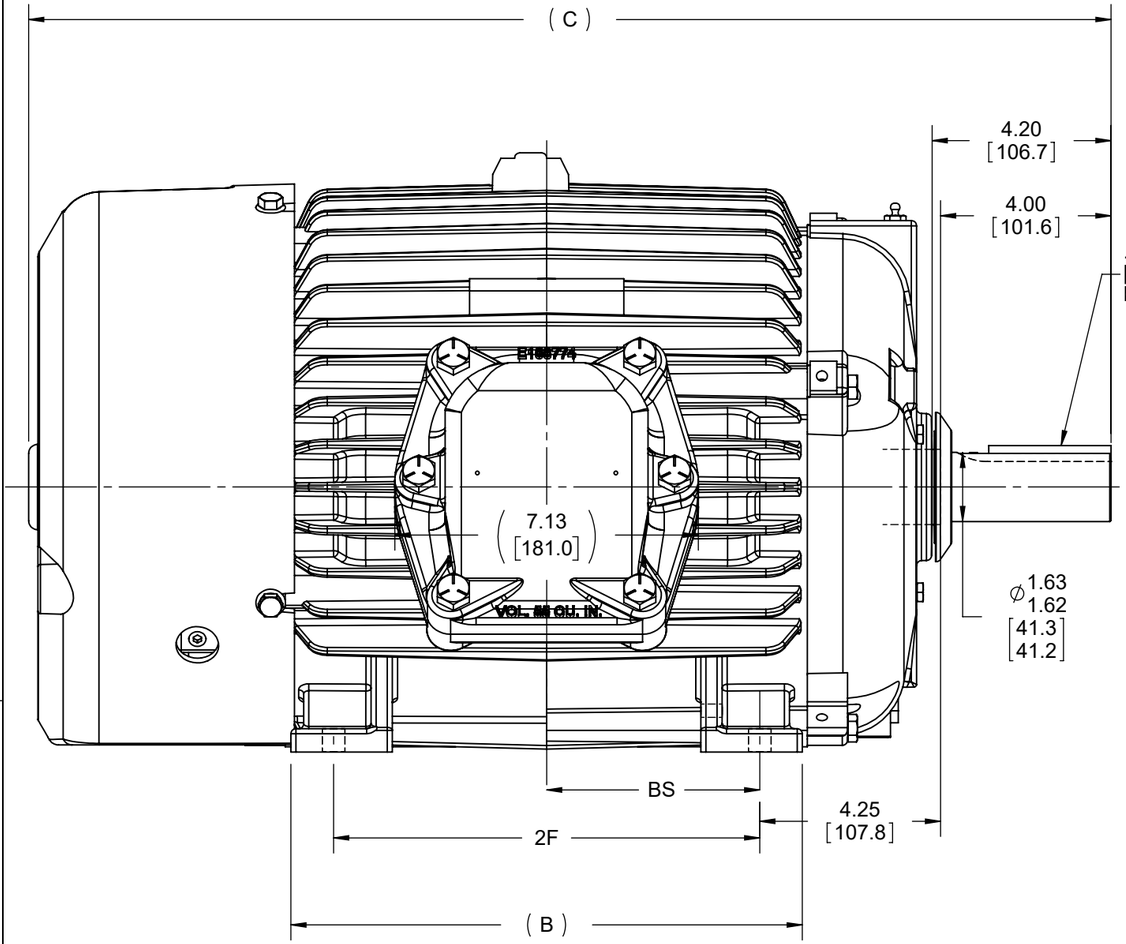
Technical Specifications

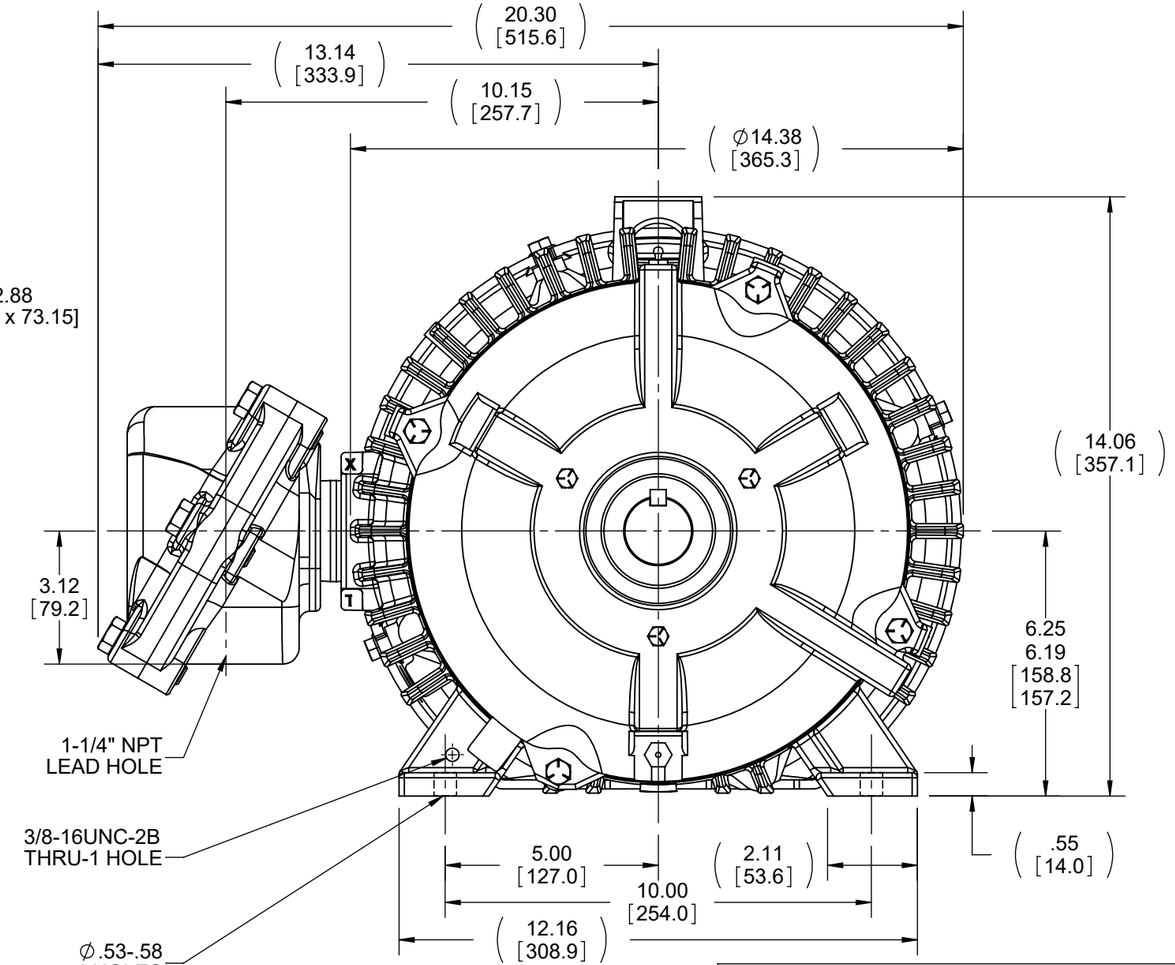
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**4**	Rotation	**Reversible**
Resistance Main	**.649 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**T**	Overall Length	**23.52 in**
Frame Length	**10.5 in**	Shaft Diameter	**1 5/8 in**
Shaft Extension	**4.2 in**	Assembly/Box Mounting	**F1 Only**
Inverter Load	**Constant 10:1**		

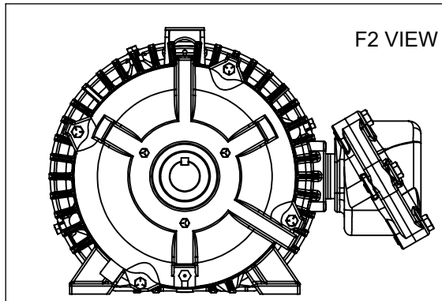
Drawings

Connection Drawing	**A-EE7300T**	Outline Drawing	**B-SS203001-1050**

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NOTES:
1. CONDUIT BOX CAN ONLY BE ROTATED CLOCKWISE UP TO 270° FROM ITS ORIGINAL POSITION.
2. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	B	C	2F	2FF	BS
1050	254T	10.25 [260.35]	23.65 [600.71]	---	8.25 [209.55]	4.12 [104.65]
1225	256T	12.00 [304.80]	25.40 [645.16]	---	10.00 [254.00]	5.00 [127.00]

DRAWING REVISION G	REVISION BY SB	REV DATE/© DATE 07/25/2025
REQUEST NUMBER CR-0023600	APPROVED BY SBD	DATE 07/25/2025
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 INCH / 5.1 mm
mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

DRAWN BY	RM
DATE	12-14-1993
APPROVED BY	FG
DATE	12-15-1993
REFERENCE	
THIRD ANGLE PROJECTION	

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DESCRIPTION: OUTLINE
250T FR. EXP. PR. - BB - T - STD.

MATERIAL | PROCESS/FINISH

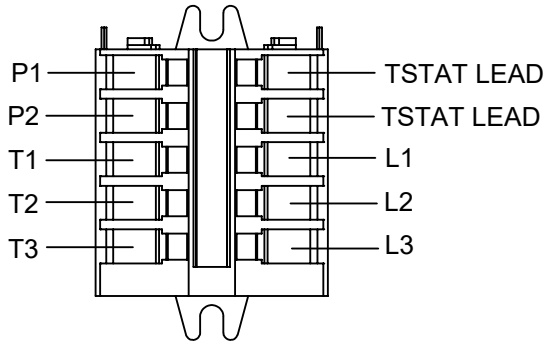
SIZE B | DRAWING NUMBER SS203001 | SHEET 1 OF 1

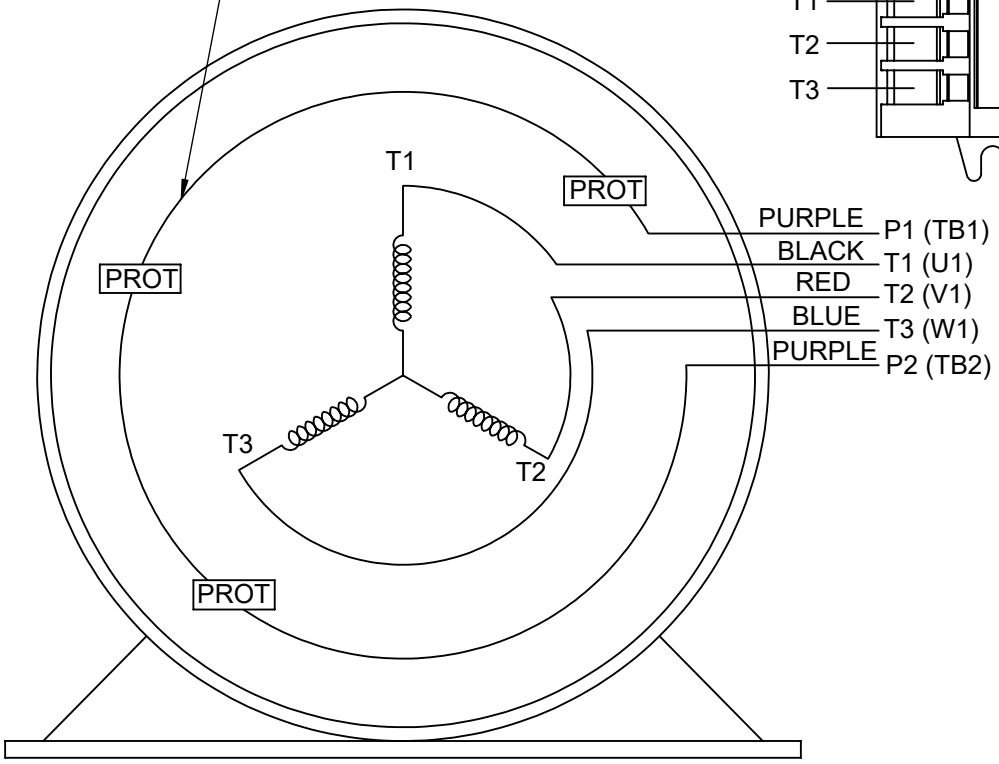
THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS

NOTE FOR FACTORY USE ONLY:
TO SURGE TEST:
FOR 3 LEAD COMMON CONNECT:
CONNECT P1 TO T1 THEN P2 TO L1
FOR 6 LEAD COMMON CONNECT:
CONNECT P1 TO BOTH T1
THEN P2 TO L1

TERMINIAL BLOCK WHEN SPECIFIED

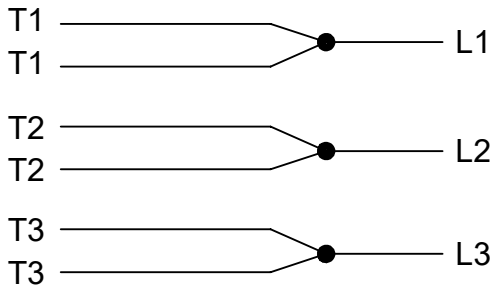




VIEW OF TERMINAL END

T2BM
T6AW
T6AL
T6Z
T4EG
T4BF
T8A
T6H
T6A
T4AX
T4A
T2A
T2F

IF MOTOR HAS MULTIPLE
T'S PER LEAD CONNECT
TOGETHER LIKE T'S



A-9806 DECAL

DRAWING REVISION AC	REVISION BY SB	REV DATE/© DATE 08/01/2025	PRIMARY DIMENSIONS ARE INCH mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY	DRAWN BY LZ	marathon™
REQUEST NUMBER CR-0023654	APPROVED BY SBD	DATE 08/01/2025		DATE 01-04-1994	
REQUEST NUMBER DESCRIPTION DRAWING TITLE BLOCK UPDATED				APPROVED BY GK	DESCRIPTION CONN DIAGRAM-EXTERNAL 3Ø-SINGLE VOLT-MOTOR WITH PROTECTOR
				DATE 01-20-1994	
				REFERENCE	MATERIAL / PROCESS/FINISH
				THIRD ANGLE PROJECTION	SIZE A / DRAWING NUMBER EE7300T / SHEET 1 OF 1

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Data Sheet

Date: 6/19/2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon electric

254TTGN16541

Submittal

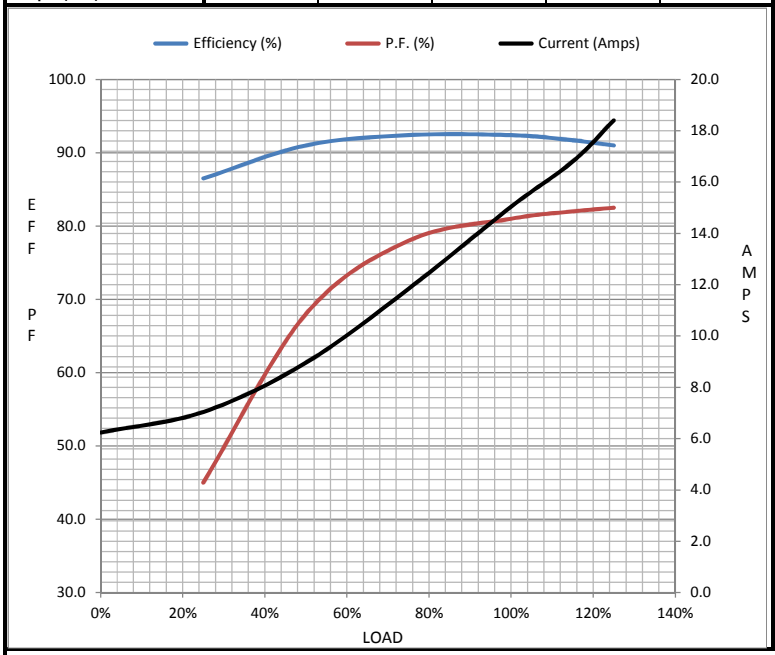
Data @ 575 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	6.2	7.0	9.0	11.8	15.0	16.8	18.4	88.0	
Torque (ft-lb)	0.00	11.0	22.0	33.5	44.4	50.5	56.0	85.0	
RPM	1800	1792	1788	1780	1775	1,770	1765	0	
Efficiency (%)		86.5	91.0	92.4	92.4	91.7	91.0		
P.F. (%)	11.5	45.0	68.0	78.0	81.0	82.0	82.5	40.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1675	1775	1800
Current (Amps)	88.0	76.0	55.2	15.0	6.2
Torque (ft-lb)	85.0	75.0	125	44.4	0.00



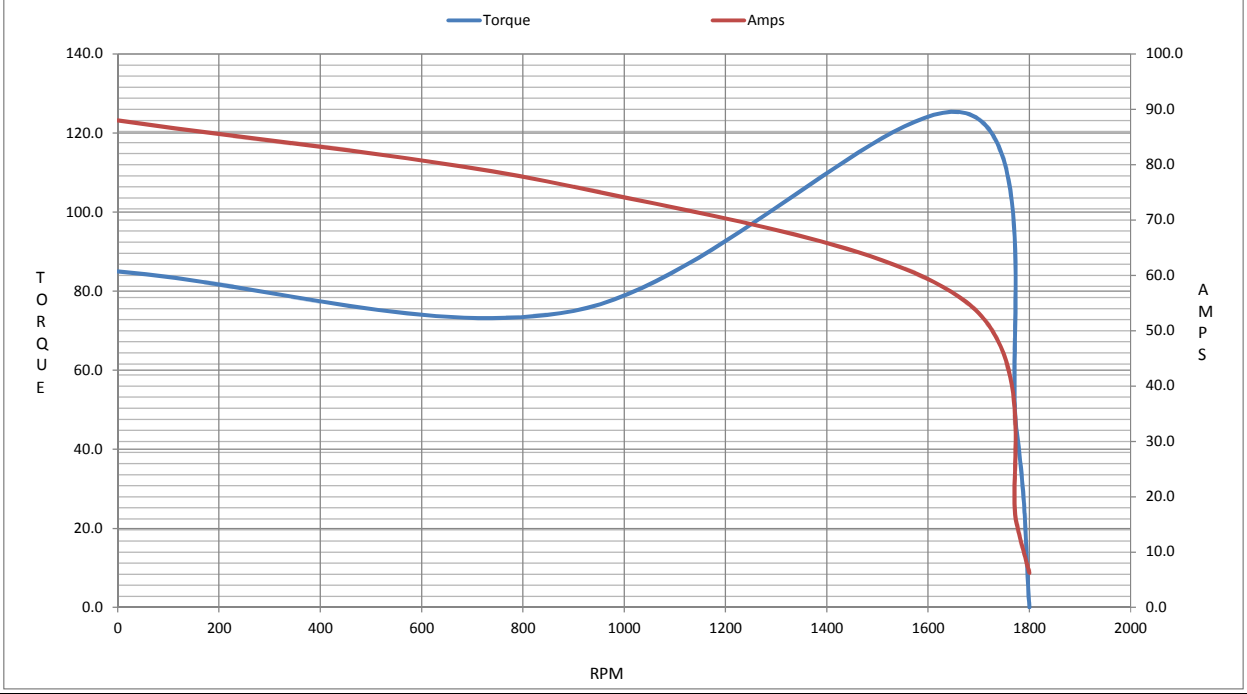
Information Block

HP	15.0	
Sync. RPM	1800	
Frame	254	
Enclosure	TEFC	
Construction	TFN	
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	1,000	feet
Rotor/Shaft wk²	2.40	Lb-Ft²
Ref Wdg	K2564165 NONE	
Sound Pressure @ 1M	65	dBA
VFD Rating	CONSTANT 10:1	
Outline Dwg	B-SS203001-1050	
Conn. Diag	A-EE7300T	
Additional Specifications:		
0		
0		

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.5880	0.3720	2.1110	2.7760	50.7940

Speed -Torque Curve



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CERTIFICATION DATA SHEET

Model#:	254TTGN16541 AA	**WINDING#:**	K2564165 NONE 3
CONN. DIAGRAM:	A-EE7300T	**ASSEMBLY:**	F1 ONLY
OUTLINE:	B-SS203001-1050		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
15	11.2	1800	1775	254T	EPFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	575	15.1	LINE OR INVERTER	CONTINUOUS	F3	1.15	40	3300

FULL LOAD EFF: 92.4	3/4 LOAD EFF: 92.4	1/2 LOAD EFF: 91	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 81	3/4 LOAD PF: 78	1/2 LOAD PF: 68	91.7	SQ CAGE INV RATED	6.2

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
44.4 LB-FT	88	85 LB-FT 191	125 LB-FT 282	55

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
65 dBA	75 dBA	2.4 LB-FT^2	110 LB-FT^2	25 SEC.	2	325 LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	EXP PROOF CL I GR C&D CL II GR F&G T3B	FALSE	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL 6309	BALL 6210	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
TSTATS (N/C)	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: CONSTANT 10:1
INV. HP SPEED RANGE: NONE

ENCODER: NONE
NONE NONE
NONE NONE PPR

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

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