marathon®

Explosion Proof Motors

Model No: 254TTGN6576
Catalog No: E500

Explosion Proof Motor, 7.50 & 5 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1200 RPM, 254T Frame, EPFC

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Product Information Packet: Model No: 254TTGN6576, Catalog No: E500 Explosion Proof Motor, 7.50 & 5 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1200 RPM, 254T Frame, EPFC

Nameplate Specifications

Phase	**3**	Output HP	**7.50 & 5 Hp**
Output KW	**5.6 & 3.7 kW**	Voltage	**230/460 & 190/380 V**
Speed	**1175 & 975 r/min**	Synchronous RPM	**1200 & 1000 r/min**
Service Factor	**1.15 & 1.0**	Frame	**254T**
Enclosure	**Explosion Proof Fan cooled**	Thermal Protection	**Thermostat**
Efficiency	**91 & 89.5 %**	Ambient Temperature	**40 °C**
Frequency	**60 & 50 Hz**	Current	**19.8/9.9 & 17/8.5 A**
Power Factor	**78**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**H**	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**		

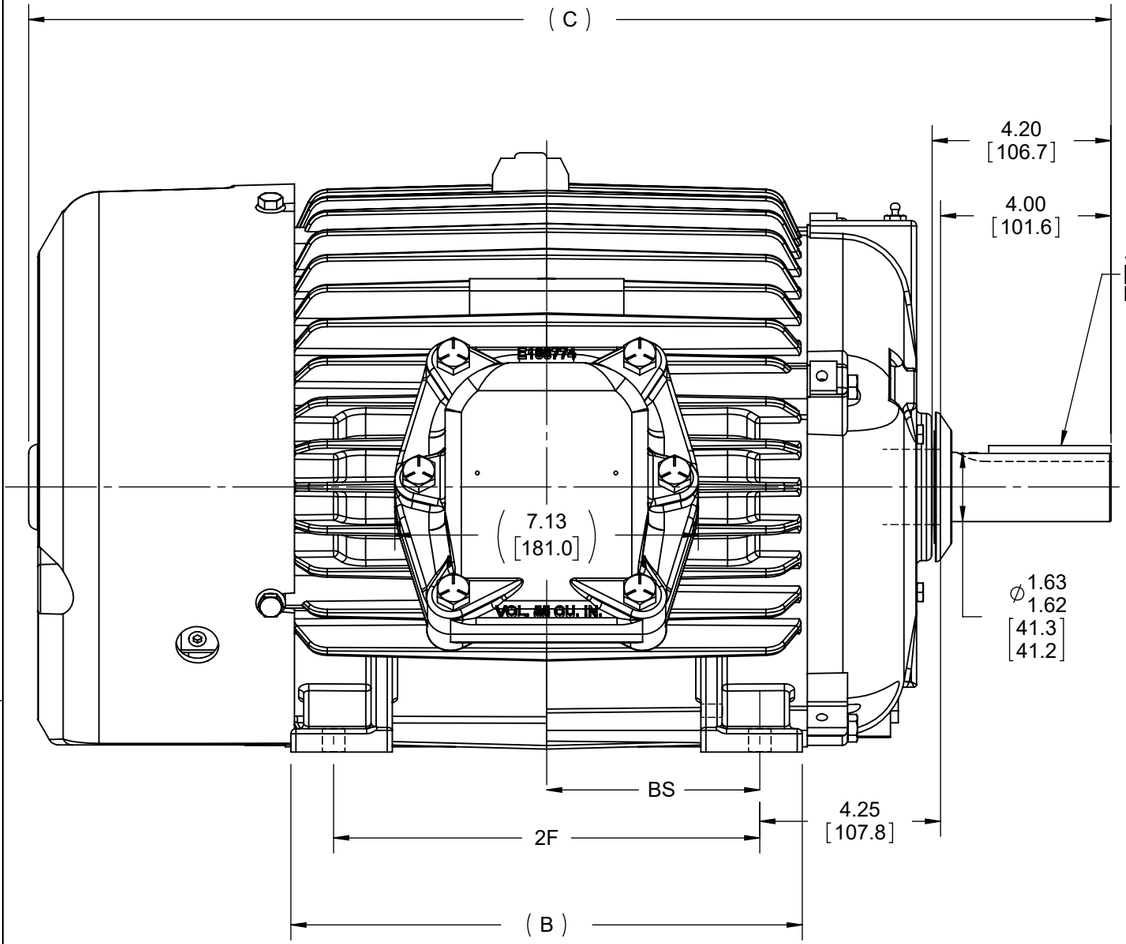
Technical Specifications

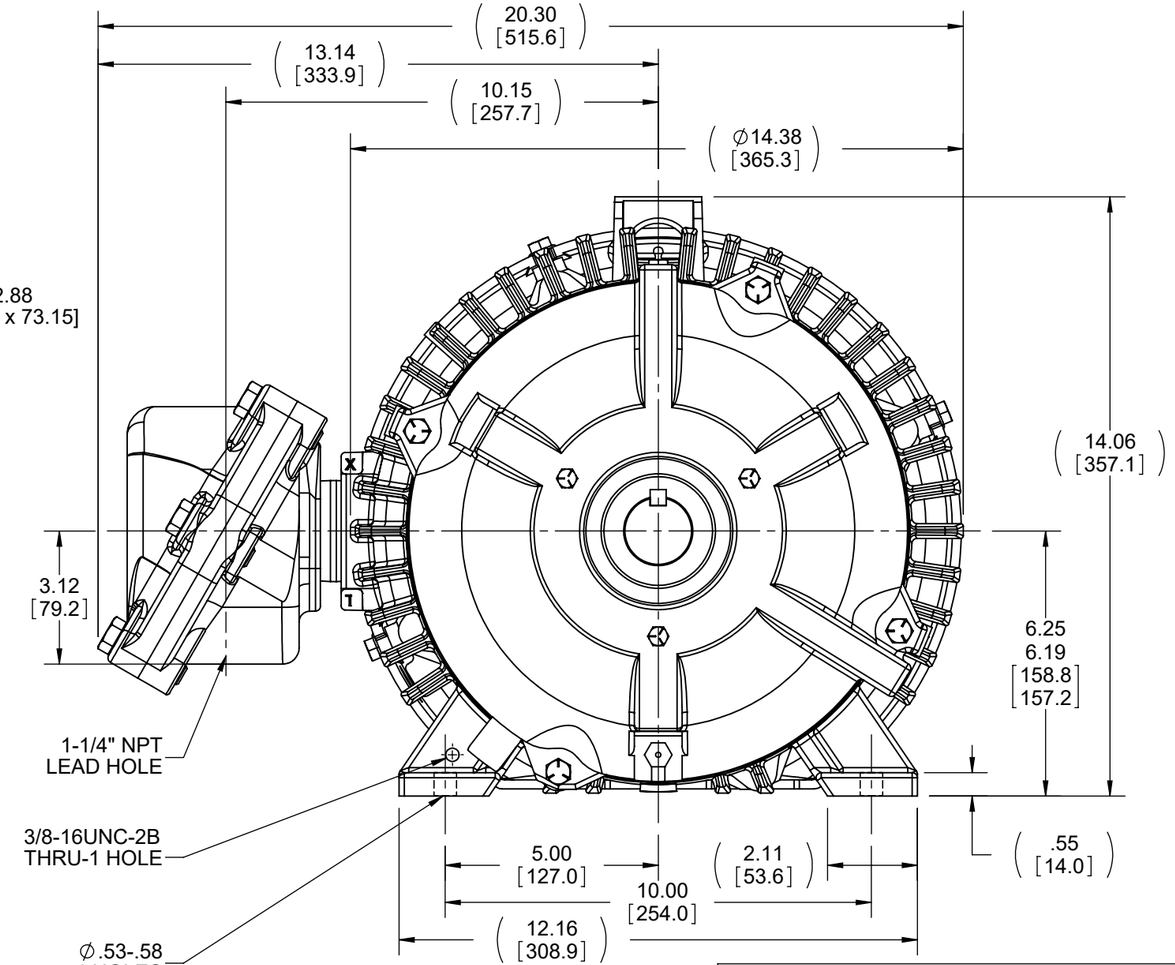
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**6**	Rotation	**Reversible**
Resistance Main	**1.319 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**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**		

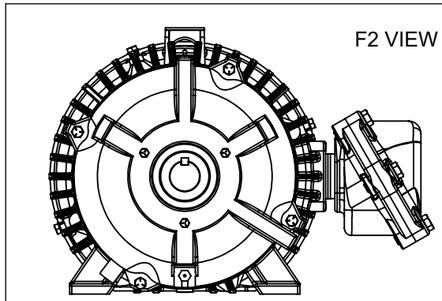
Drawings

Connection Drawing	**A-EE7308T**	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	

marathon™

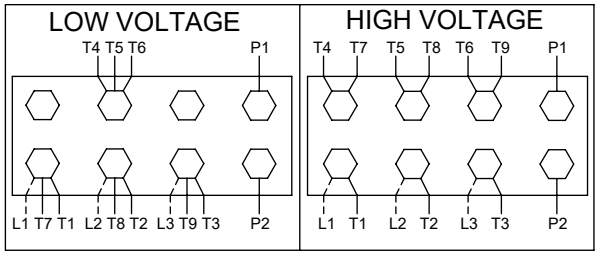
DESCRIPTION: OUTLINE
250T FR. EXP. PR. - BB - T - STD.

MATERIAL | PROCESS/FINISH

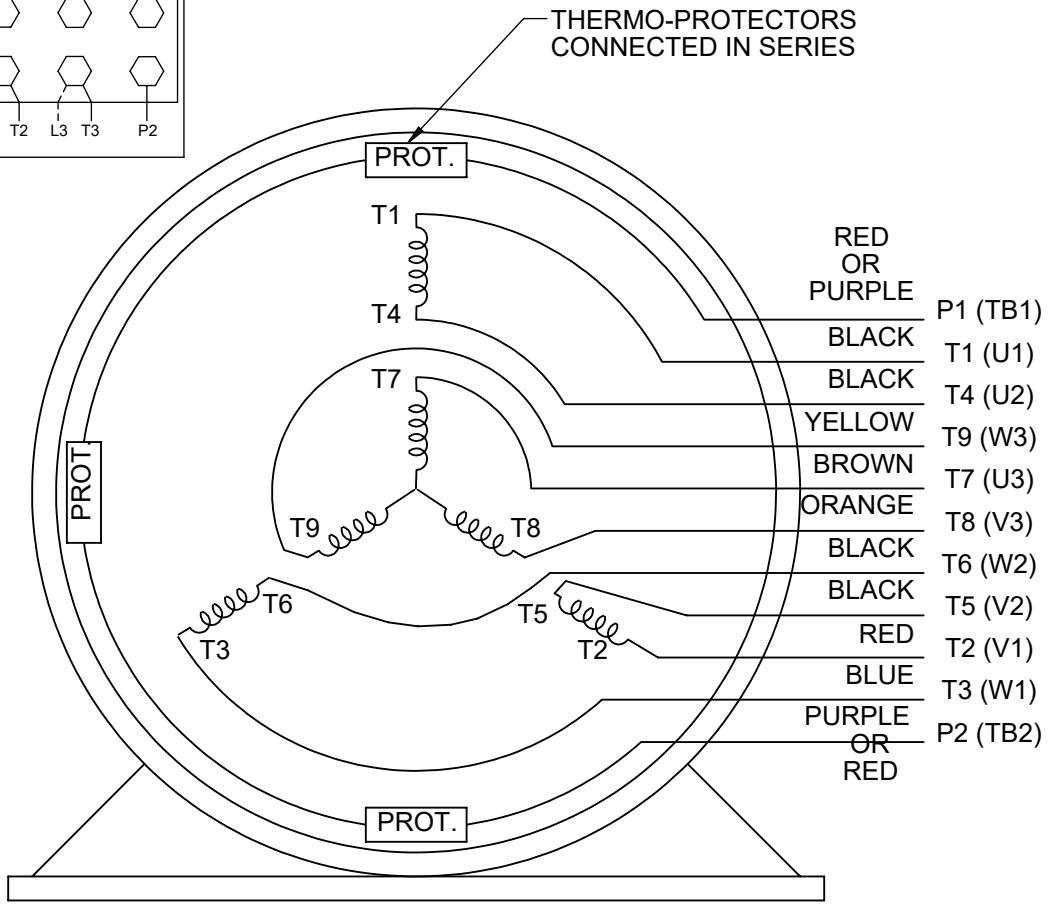
SIZE B | DRAWING NUMBER SS203001 | SHEET 1 OF 1

HIGH VOLTAGE

(U1) T1 — L1
(V1) T2 — L2
(W1) T3 — L3
(U2) T4
(U3) T7
(V2) T5
(V3) T8
(W2) T6
(W3) T9



THREE PHASE
DUAL VOLTAGE MOTOR



VIEW OF TERMINAL END

NOTE FOR FACTORY USE ONLY:
TO SURGE TEST FOR COMMON CONNECT:
HIGH VOLT: CONNECT P1 TO T1
THEN P2 TO L1
LOW VOLT: CONNECT P1 TO T1 & T7,
THEN P2 TO L1

LOW VOLTAGE

(U1) T1 — L1
(U3) T7 — L1
(V1) T2 — L2
(V3) T8 — L2
(W1) T3 — L3
(W3) T9 — L3
(U2) T4
(V2) T5
(W2) T6

NOTE: LEAD'S COLOR CAN BE YELLOW OR WHITE FOR IMG PLANT

DRAWING REVISION: U	REVISION BY: SB	REV DATE/© DATE: 08/01/2025	PRIMARY DIMENSIONS ARE INCH mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY	DRAWN BY: SMC	marathon™
REQUEST NUMBER: CR-0023654	APPROVED BY: SBD	DATE: 08/01/2025		DATE: 05-13-1992	
REQUEST NUMBER DESCRIPTION: DRAWING TITLE BLOCK UPDATED				APPROVED BY: TB	DESCRIPTION: CONN DIAGRAM-EXTERNAL
				DATE: 05-13-1992	3 PHASE - DUAL VOLTAGE MOTOR
				REFERENCE: EE7308/EE7300	MATERIAL / PROCESS/FINISH
				THIRD ANGLE PROJECTION	SIZE: A — DRAWING NUMBER: EE7308T — SHEET: 1 OF 1

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Data Sheet

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

marathon® electric

254TTGN6576

Submittal

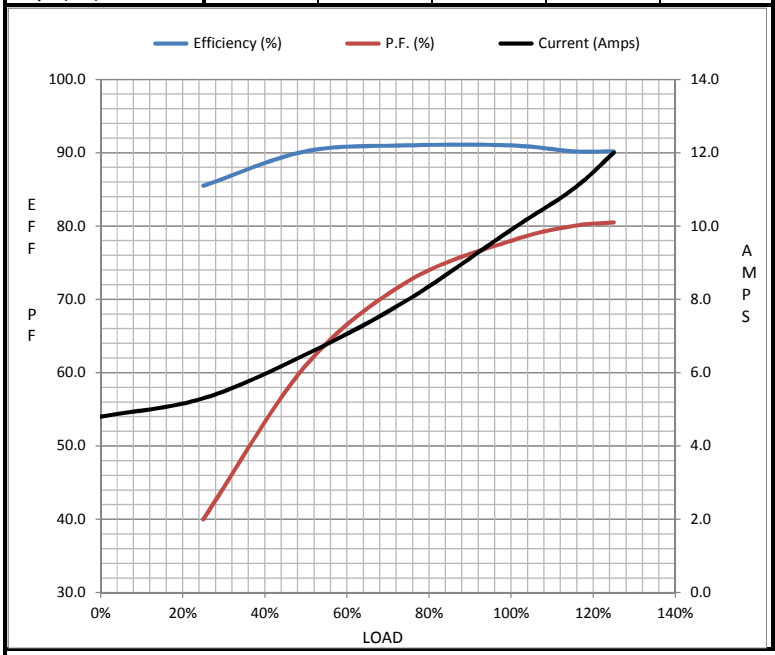
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	4.8	5.3	6.5	8.0	9.9	11.0	12.0	63.5	
Torque (ft-lb)	0.00	8.0	16.5	25.0	33.5	38.5	42.0	72.0	
RPM	1200	1195	1190	1180	1175	1,170	1165	0	
Efficiency (%)		85.5	90.2	91.0	91.0	90.2	90.2		
P.F. (%)	7.0	40.0	61.0	72.5	78.0	80.0	80.5	42.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1065	1175	1200
Current (Amps)	63.5	59.0	39.5	9.9	4.8
Torque (ft-lb)	72.0	69.0	103	33.5	0.00



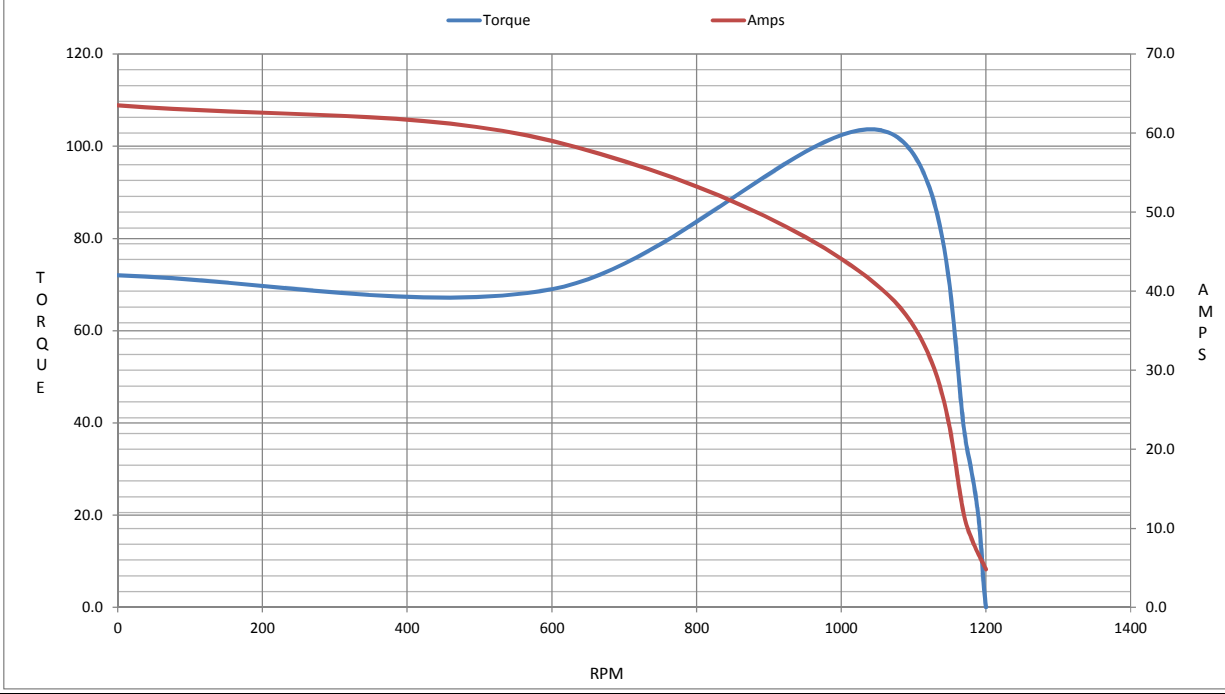
Information Block

HP	7.5
Sync. RPM	1200
Frame	254
Enclosure	TEFC
Construction	TFN
Voltage	230/460#190/380 V
Frequency	60 Hz
Design	B
LR Code letter	H
Service Factor	1.15
Temp Rise @ FL	40 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	2.50 Lb-Ft²
Ref Wdg	254653 NONE
Sound Pressure @ 1M	56 dBA
VFD Rating	CONSTANT 10:1
Outline Dwg	B-SS203001-1050
Conn. Diag	A-EE7308T
Additional Specifications:	
0	
0	

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.7370	0.6730	2.9030	3.1530	53.4870

Speed -Torque Curve



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CERTIFICATION DATA SHEET

Model#:	254TTGN6576 BF	**WINDING#:**	254653 NONE 6
CONN. DIAGRAM:	A-EE7308T	**ASSEMBLY:**	F1 ONLY
OUTLINE:	B-SS203001-1050		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
7 1/2&5	5.6&3.7	1200	1175&975	254T	EPFC	H	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/380	19.8/9.9&17/8.5	LINE OR INVERTER	CONTINUOUS	F3	1.15/1.0	40	3300

FULL LOAD EFF: 91&89.5	3/4 LOAD EFF: 91	1/2 LOAD EFF: 90.2	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 78&75	3/4 LOAD PF: 72.5	1/2 LOAD PF: 61	90.2	SQ CAGE INV RATED	9.6 / 4.8

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
33.5 LB-FT	127 / 63.5	72 LB-FT 215	103 LB-FT 307	40

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
56 dBA	66 dBA	2.5 LB-FT^2	170 LB-FT^2	20 SEC.	2	350 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

* NOTES *

DATE: 06/21/2017 10:36:54 AM
FORM 3531 REV.3 02/07/99
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