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# Severe Duty Motors

**Model No:** 324THFCD9076
**Catalog No:** W562A

Severe Duty Motor, 25 HP, 3 Ph, 60 Hz, 460 V, 1200 RPM, 324T Frame, TEFC

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# Product Information Packet: Model No: 324THFCD9076, Catalog No: W562A  Severe Duty Motor, 25 HP, 3 Ph, 60 Hz, 460 V, 1200 RPM, 324T Frame, TEFC

## Nameplate Specifications

| | | | |
|---|---|---|---|
| Phase | **3** | Output HP | **25 Hp** |
| Output KW | **18.7 kW** | Voltage | **460 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 | **32.0 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

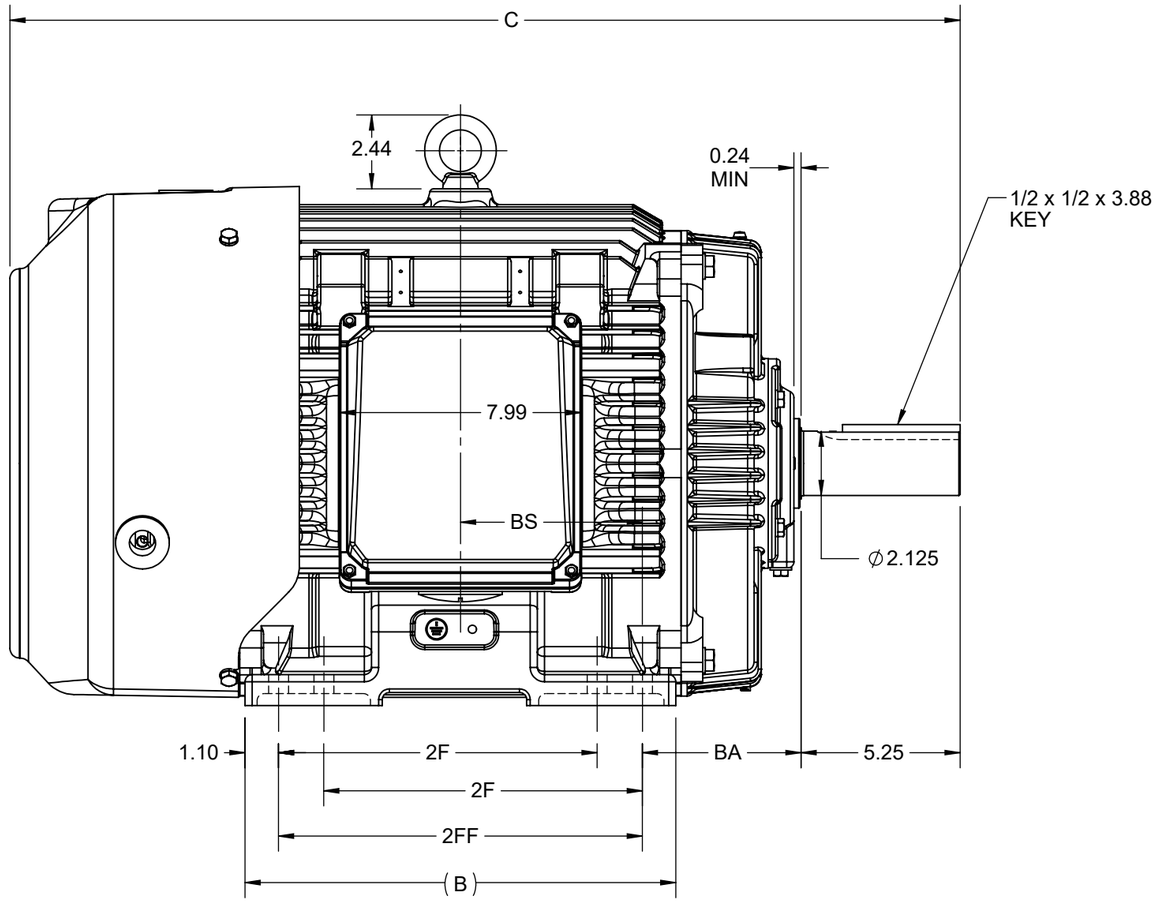
| | | | |
|---|---|---|---|
| Electrical Type | **Squirrel Cage Inverter Rated** | Starting Method | **Line Or Inverter** |
| Poles | **6** | Rotation | **Reversible** |
| Resistance Main | **.327 O** | Mounting | **Rigid Base** |
| Motor Orientation | **Horizontal** | Drive End Bearing | **Ball** |
| 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** |

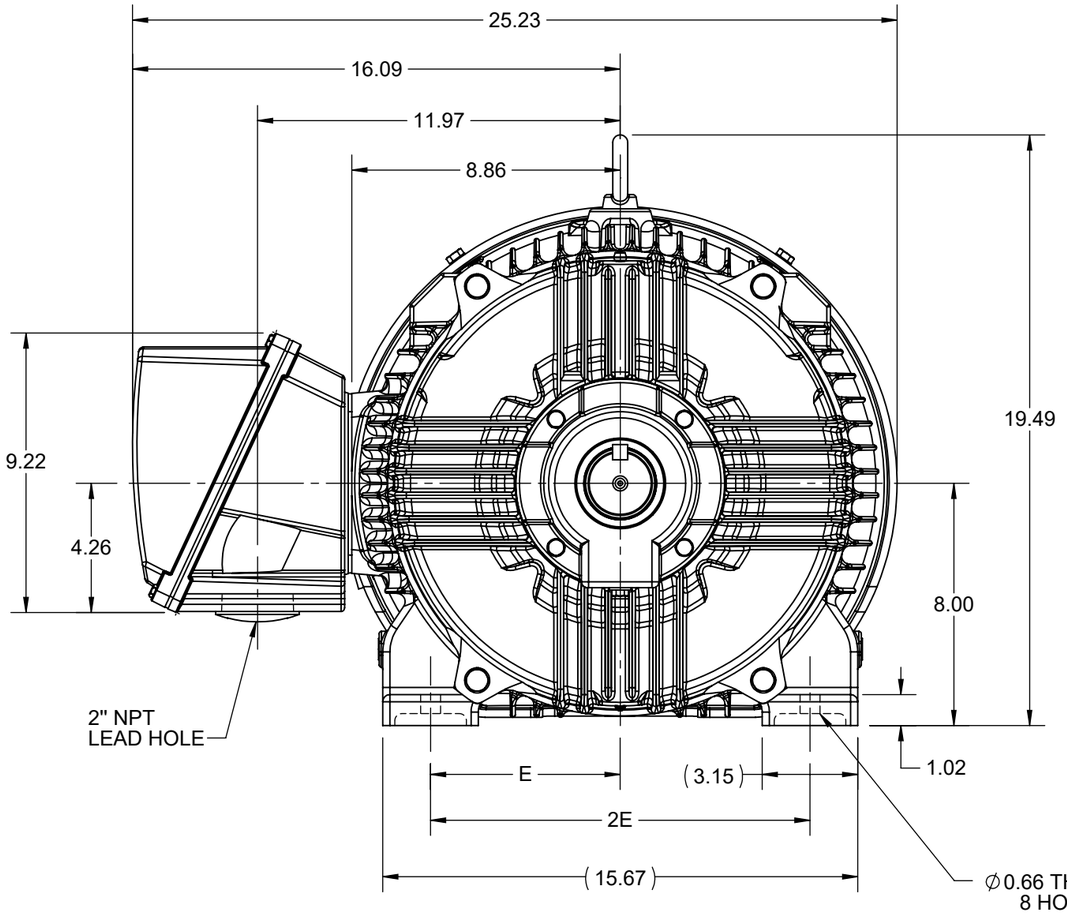
## Drawings

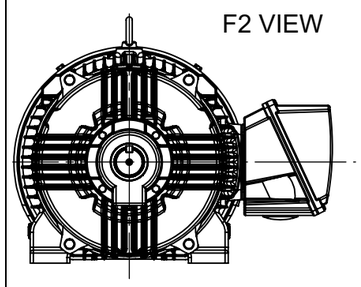
| | | | |
|---|---|---|---|
| Connection Drawing | **EE7300** | Outline Drawing | **SS312939-100** |

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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
DRAWING TITLE BLOCK UPDATED

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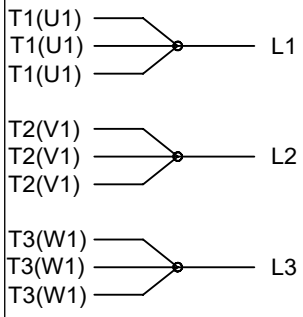
| DRAWN BY | DESCRIPTION |
|---|---|
| BISWA | OUTLINE |
| DATE | 324/326T FR-NEMA-SD & IEEE841 |
| 24/12/2018 | |
| APPROVED BY | |
| SBD | |
| DATE | |
| 24/12/2018 | |
| REFERENCE | MATERIAL / PROCESS/FINISH |
| THIRD ANGLE PROJECTION | SIZE B / DRAWING NUMBER SS312939 / SHEET 1 OF 1 |

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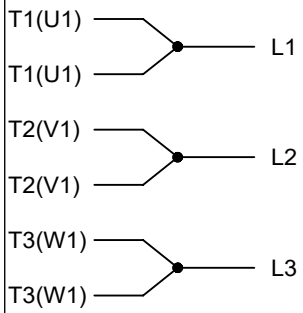
THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS

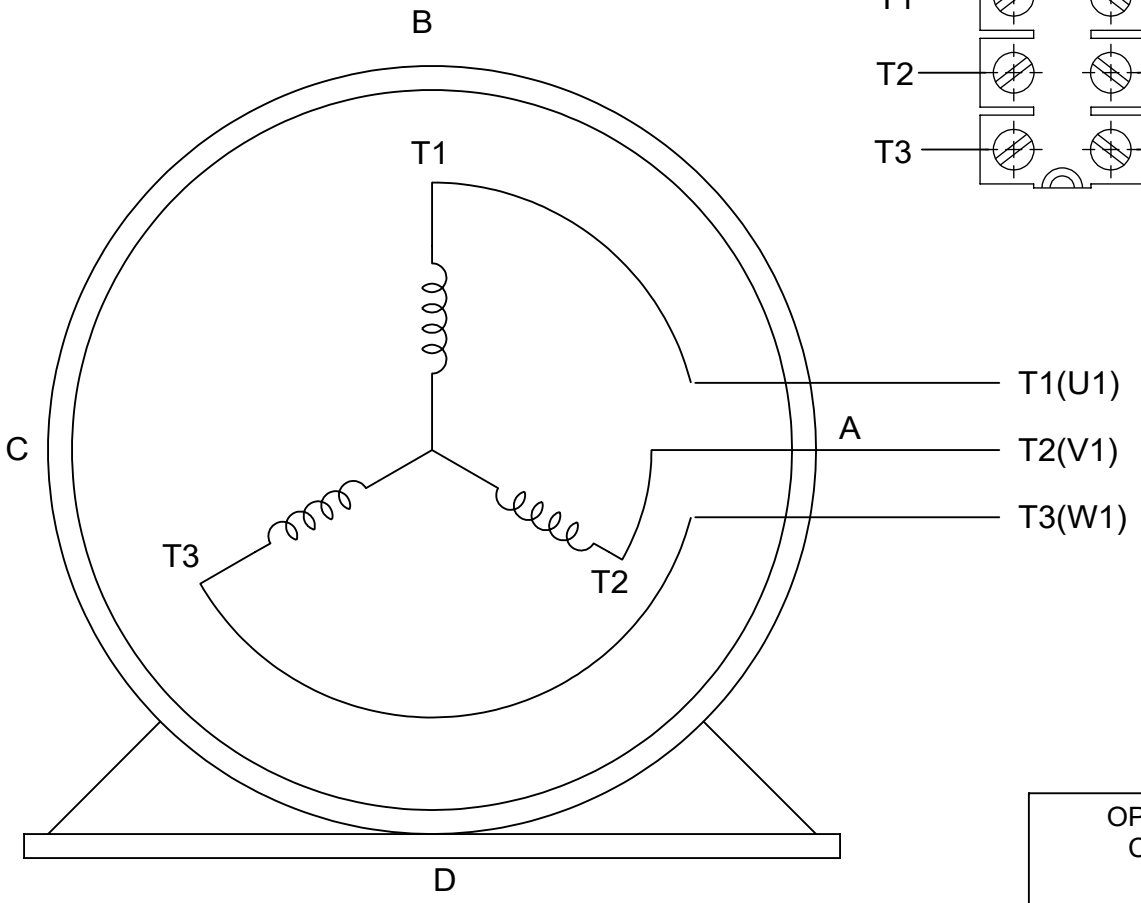
IF MOTOR HAS
9 LEADS




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 |

REQUEST NUMBER DESCRIPTION
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PRIMARY DIMENSIONS ARE INCH
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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 |

# Data Sheet

Date: 5/6/2020
Customer:
Attention:
Submitted by:

marathon® Motors

324THFCD9076

**Submittal**

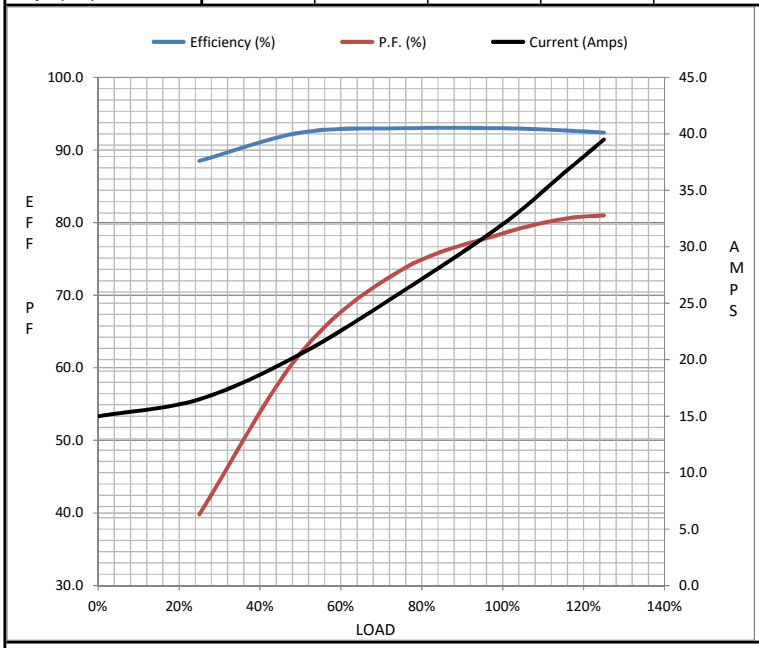
Data @ 460 V

## Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR | |
|---|---|---|---|---|---|---|---|---|---|
| Current (Amps) | 15.0 | 16.5 | 20.5 | 26.0 | 32.0 | 36.5 | 39.5 | 182 | |
| 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) | 182 | 145 | 105 | 32.0 | 15.0 |
| Torque (ft-lb) | 200 | 168 | 272 | 111 | 0.00 |



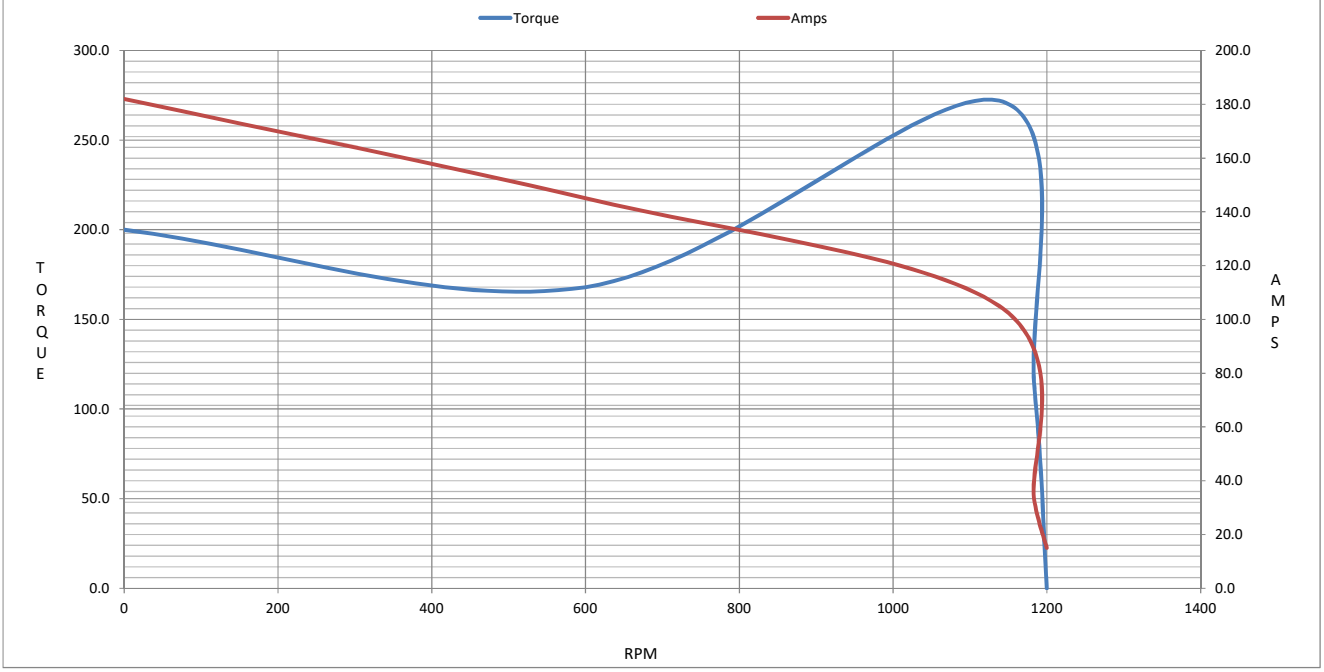

## Information Block

| | | |
|---|---|---|
| HP | 25.0 | |
| Sync. RPM | 1200 | |
| Frame | 324 | |
| Enclosure | TEFC | |
| Construction | TFC | |
| Voltage | 460 | 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 | SS312939-324T | |
| Conn. Diag | EE7300 | |
| Additional Specifications: | | |
| 0 | | |
| 0 | | |

EQUIV CKT (OHMS / PHASE)

| R1 | R2 | X1 | X2 | Xm |
|---|---|---|---|---|
| 0.2020 | 0.1230 | 0.7950 | 1.2260 | 17.1390 |

## Speed -Torque Curve



Uncontrolled Copy

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**DATA VOLTS:** 460

## CERTIFICATION DATA SHEET

**MODEL #:** 324THFCD9076
**CAT #:** W562A

**CONN. DIAGRAM:** EE7300
**OUTLINE:** SS312939-324T
**WINDING:** HA32006005 NONE 4

**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 | 460 | 32 | 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 @ 460 V | L.R. TORQUE | B.D. TORQUE | F.L. RISE (° C) | |
|---|---|---|---|---|---|
| 111 LB-FT | 182 | 200 LB-FT 180% | 272 LB-FT 245% | 60 | |

| SOUND PRESSURE | SOUND | ROTOR WK² | MAX. LOAD WK² | SAFE STALL TIME | STARTS/HOUR | APROX. MOTOR |
|---|---|---|---|---|---|---|
| 65 dBA | 74 dBA | 11.8 LB-FT² | 375 LB-FT² | 20 SEC. | 2 | 582 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) | |
|---|---|---|---|---|---|---|
| 0.202 | 0.123 | 0.795 | 1.226 | 17.139 | 0.080 | |

**NOTES**

*
*

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:** ANUSHA M
**DATE:** 3/31/2020

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