marathon®

# Severe Duty Motors

**Model No:** 254THFCD19065
**Catalog No:** W546A-P

Severe Duty Motor, 15 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 254T Frame, TEFC

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# Product Information Packet: Model No: 254THFCD19065, Catalog No: W546A-P  Severe Duty Motor, 15 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 254T Frame, TEFC

## Nameplate Specifications

| | | | |
|---|---|---|---|
| Phase | **3** | Output HP | **15 Hp** |
| Output KW | **11.2 kW** | Voltage | **460 V** |
| Speed | **1770 r/min** | Synchronous RPM | **1800 r/min** |
| Service Factor | **1.15** | Frame | **254T** |
| Enclosure | **Totally Enclosed Fan Cooled** | Thermal Protection | **No Protection** |
| Efficiency | **92.4 %** | Ambient Temperature | **40 °C** |
| Frequency | **60 Hz** | Current | **18.4 A** |
| Power Factor | **83** | Duty | **Continuous** |
| Insulation Class | **H** | Design Code | **B** |
| KVA Code | **G** | Drive End Bearing Size | **6309** |
| Opp Drive End Bearing Size | **6209** | UL | **Recognized** |
| CSA | **Y** | CE | **Y** |
| IP Code | **56** | Number of Speeds | **1** |

## Technical Specifications

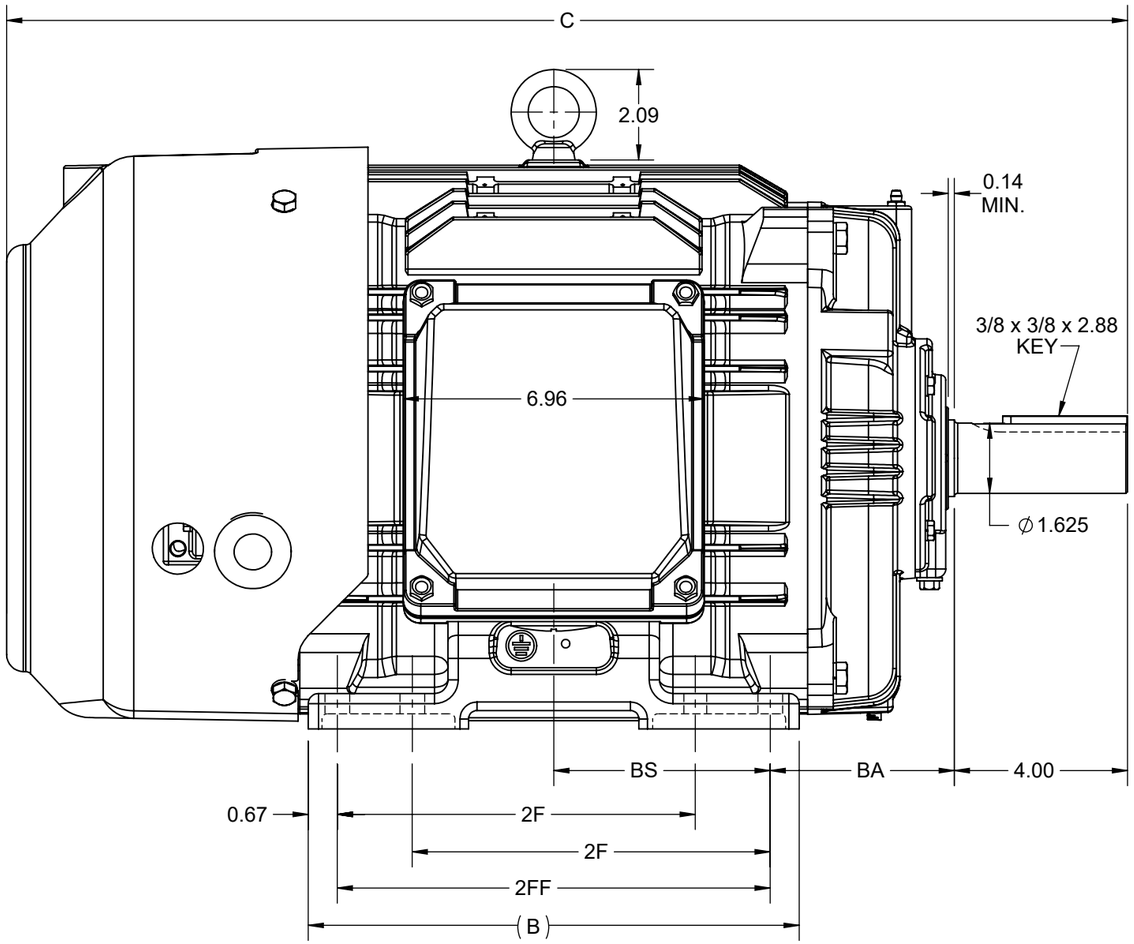
| | | | |
|---|---|---|---|
| Electrical Type | **Squirrel Cage Inverter Rated** | Starting Method | **Line Or Inverter** |
| Poles | **4** | Rotation | **Reversible** |
| Resistance Main | **.713 O** | Mounting | **Rigid Base** |
| Motor Orientation | **Horizontal** | Drive End Bearing | **Ball** |
| Opp Drive End Bearing | **Ball** | Frame Material | **Cast Iron** |
| Shaft Type | **T** | Shaft Diameter | **1.625 in** |
| Assembly/Box Mounting | **F1/F2 Capable** | Inverter Load | **Constant 10:1/Variable 10:1** |

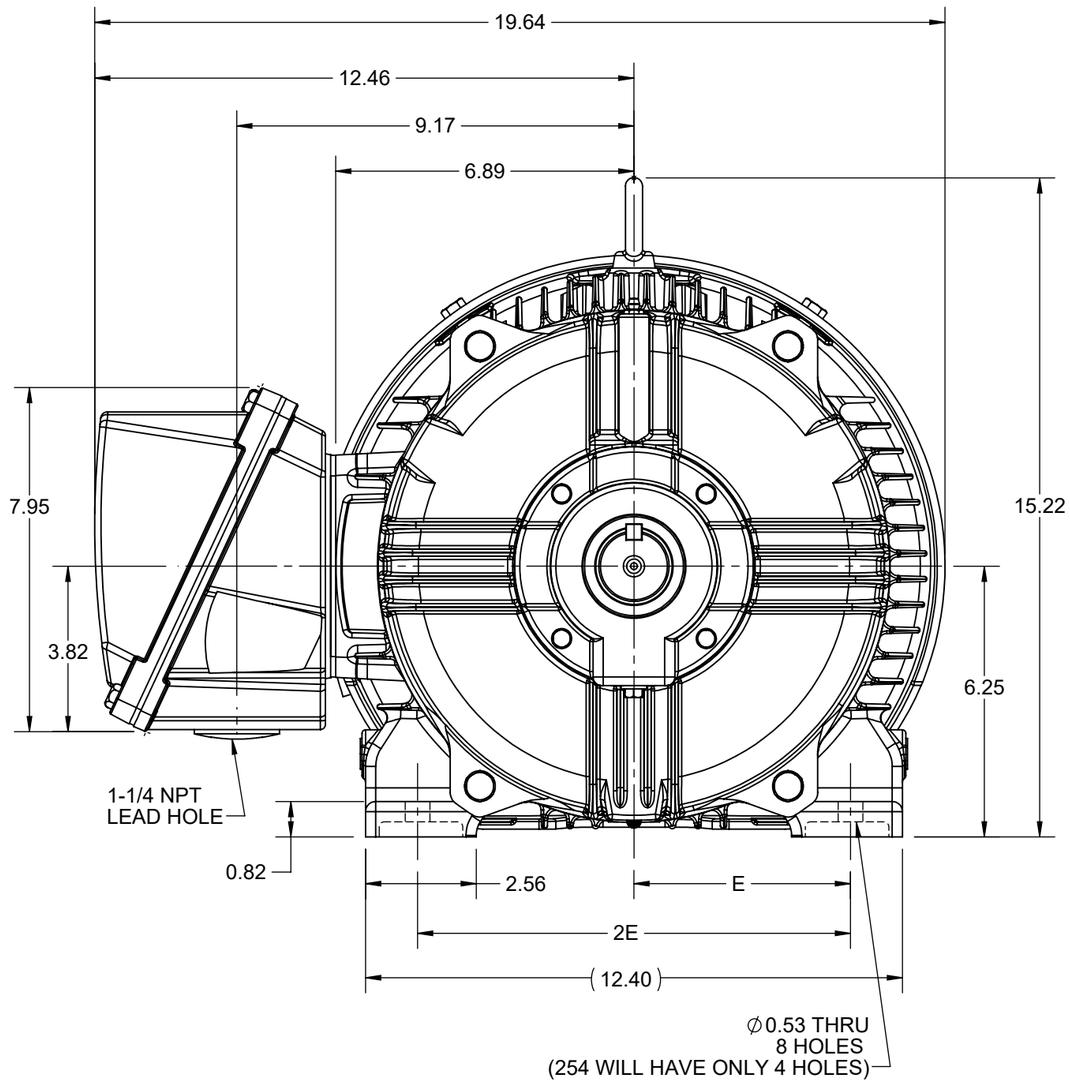
## Drawings

| | | | |
|---|---|---|---|
| Connection Drawing | **EE7300** | Outline Drawing | **SS208560-100** |

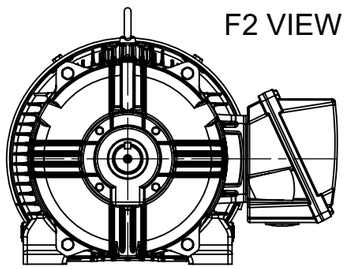
This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created: 16/10/2026

| DASH NO. | B | C | E | 2E | 2F | 2FF | BA | BS | MOUNTING | FRAME |
|---|---|---|---|---|---|---|---|---|---|---|
| 100 | 9.60 | 24.15 | 5.00 | 10.00 | - | 8.25 | 4.25 | 4.13 | F1 OR F2 | 254T |
| 200 | 11.34 | 25.89 | | | 8.25 | 10.00 | | 5.00 | | 254/256T |




F2 VIEW



| | | |
|---|---|---|
| DRAWING REVISION F | REVISION BY SB | REV DATE/© DATE 07/23/2025 |
| REQUEST NUMBER CR-0023556 | APPROVED BY SBD | DATE 07/23/2025 |
| REQUEST NUMBER DESCRIPTION: DRAWING TITLE BLOCK UPDATED | | |

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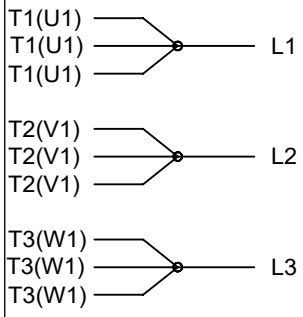
PRIMARY DIMENSIONS ARE INCH
mm DIMENSIONS IN [BRACKETS]
ARE FOR REFERENCE ONLY

| | | |
|---|---|---|
| DRAWN BY BISWA | marathon™ | |
| DATE 26/09/2018 | DESCRIPTION: OUTLINE 254T/256T FR-NEMA-SD & IEEE841 | |
| APPROVED BY SBD | | |
| DATE 26/09/2018 | | |
| REFERENCE | MATERIAL | PROCESS/FINISH |
| THIRD ANGLE PROJECTION | SIZE B / DRAWING NUMBER SS208560 | SHEET 1 OF 1 |

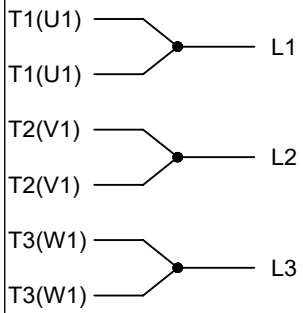
THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS

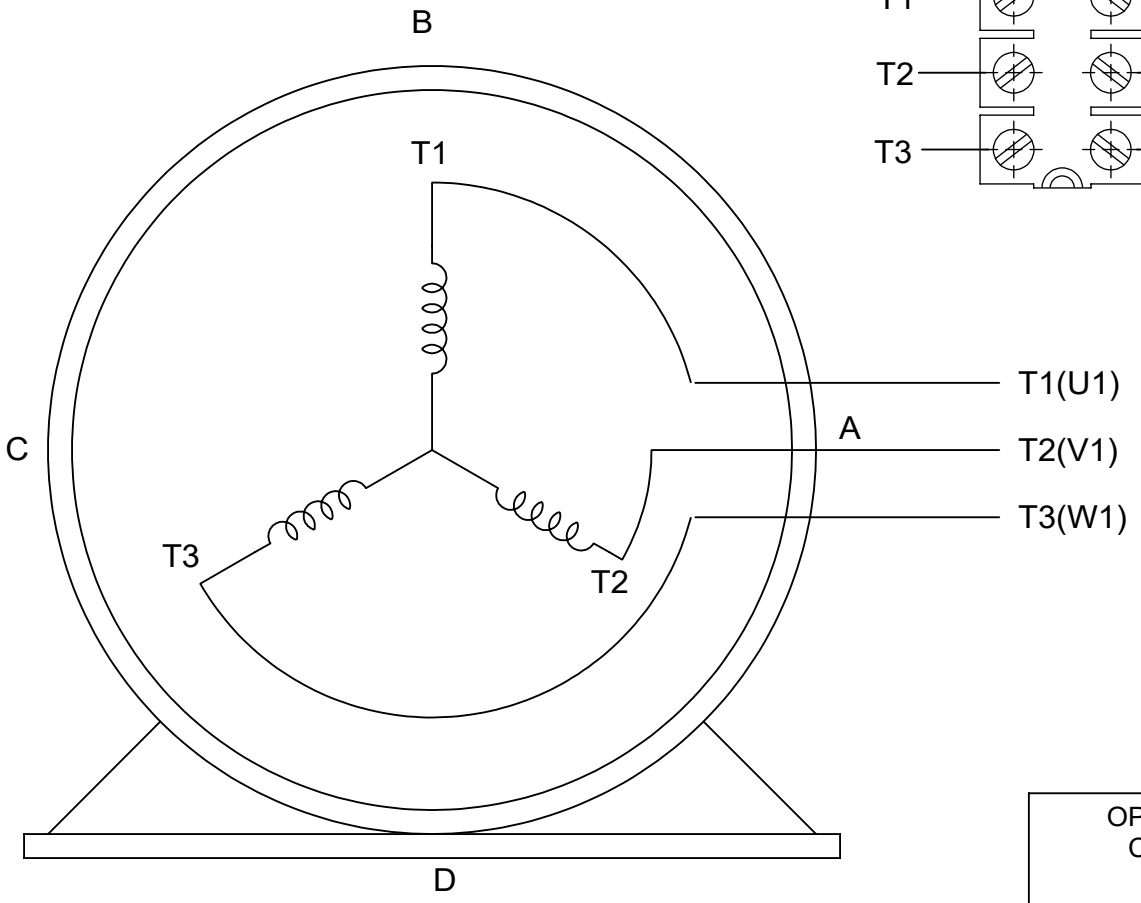
IF MOTOR HAS
9 LEADS




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
DRAWING TITLE BLOCK UPDATED

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PRIMARY DIMENSIONS ARE INCH
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ARE FOR REFERENCE ONLY

| | |
|---|---|
| DRAWN BY: DA | |
| DATE: 03-26-1993 | |
| APPROVED BY: TB | |
| DATE: 03-26-1993 | |
| REFERENCE | |
| THIRD ANGLE PROJECTION | |

marathon™

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

254THFCD19065

**Submittal**

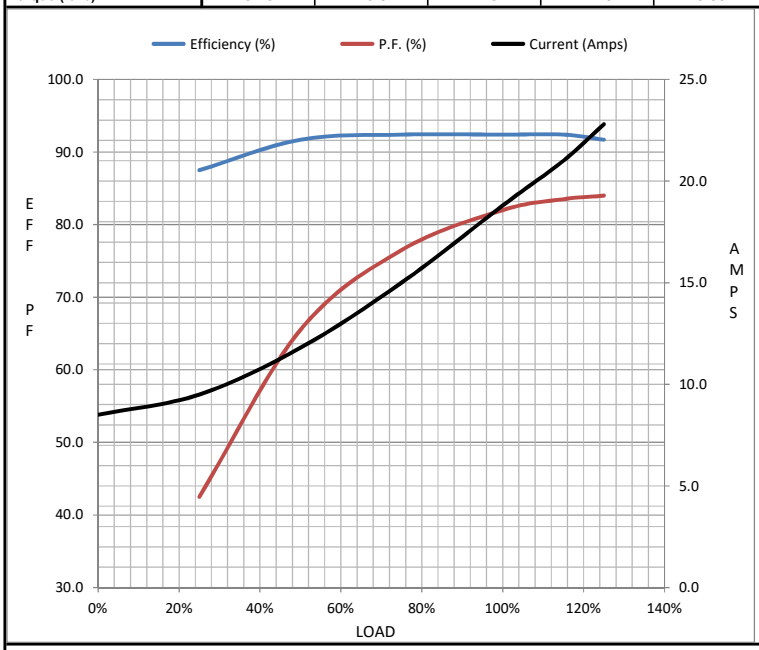
Data @ 460 V

## Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR | |
|---|---|---|---|---|---|---|---|---|---|
| Current (Amps) | 8.5 | 9.5 | 11.8 | 15.0 | 18.8 | 21.0 | 22.8 | 113 | |
| Torque (ft-lb) | 0.00 | 11.0 | 22.0 | 33.5 | 44.5 | 51.5 | 56.0 | 91.0 | |
| RPM | 1800 | 1792 | 1785 | 1780 | 1772 | 1,768 | 1762 | 0 | |
| Efficiency (%) | | 87.5 | 91.7 | 92.4 | 92.4 | 92.4 | 91.7 | | |
| P.F. (%) | 5.0 | 42.5 | 65.5 | 76.5 | 82.0 | 83.5 | 84.0 | 41.0 | |

## Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|---|---|---|---|---|---|
| Speed (RPM) | 0 | 900 | 1622 | 1772 | 1800 |
| Current (Amps) | 113 | 100 | 66.0 | 18.8 | 8.5 |
| Torque (ft-lb) | 91.0 | 76.5 | 118 | 44.5 | 0.00 |




## Information Block

| | | |
|---|---|---|
| HP | 15.0 | |
| Sync. RPM | 1800 | |
| Frame | 254 | |
| Enclosure | TEFC | |
| Construction | TFC | |
| Voltage | 460 | V |
| Frequency | 60 | Hz |
| Design | B | |
| LR Code letter | G | |
| Service Factor | 1.15 | |
| Temp Rise @ FL | 50 | ° C |
| Duty | CONT | |
| Ambient | 40 | ° C |
| Elevation | 3,300 | feet |
| Rotor/Shaft wk² | 2.40 | Lb-Ft² |
| Ref Wdg | HA31604019 NONE | |
| Sound Pressure @ 1M | 65 | dBA |
| VFD Rating | CONSTANT 10:1/VARIABLE 10:1 | |
| Outline Dwg | SS208560 | |
| Conn. Diag | EE7300 | |

Additional Specifications:

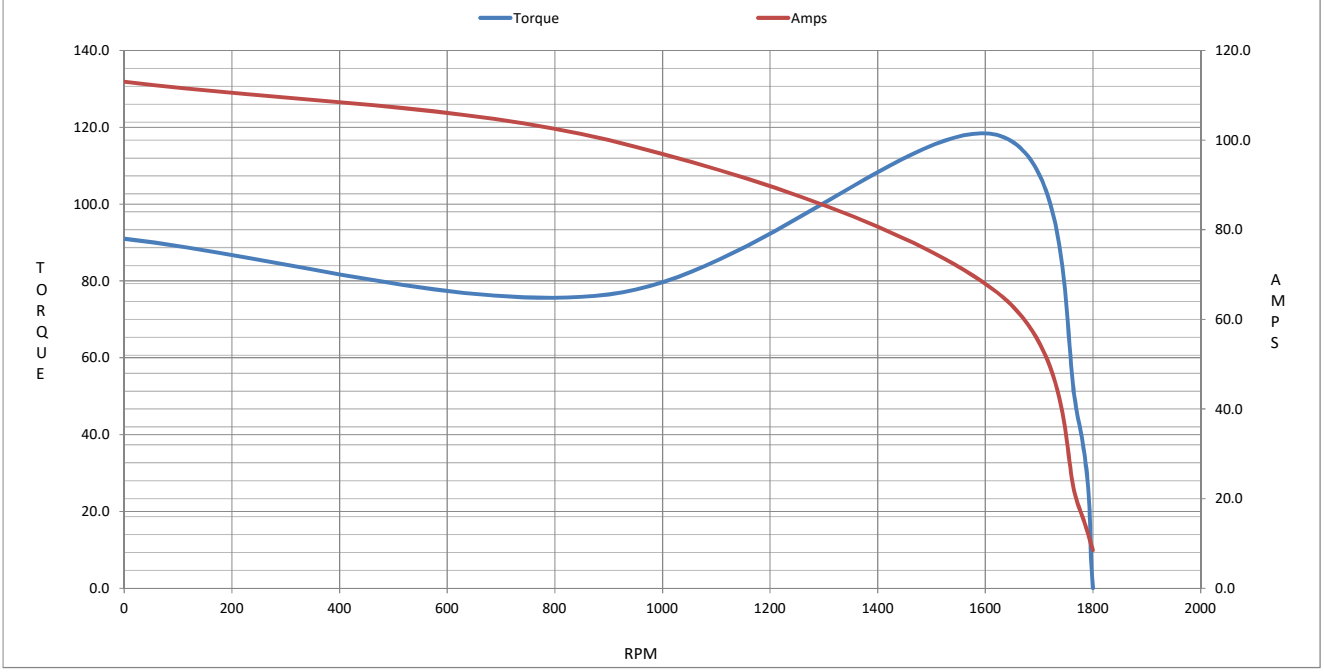
0

0

EQUIV CKT (OHMS / PHASE)

| R1 | R2 | X1 | X2 | Xm |
|---|---|---|---|---|
| 0.4400 | 0.2440 | 1.3040 | 1.4670 | 31.5630 |

## Speed -Torque Curve



Uncontrolled Copy

marathon® Motors

**DATA VOLTS:** 460

## CERTIFICATION DATA SHEET

**REFERENCE MODEL #:** 254THFCD19065
**CONN. DIAGRAM:** EE7300 **CAT #:** W546A-P
**OUTLINE:** SS208560
**WINDING:** HA31604019 NONE 7 **MOUNTING:** F1/F2 CAPABLE

### TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|---|---|---|---|---|---|---|---|---|
| 15 | 11.2 | 1800 | 1772 | 254T | TEFC | TFC | G | B |

| PH | HZ | VOLTS | AMPS | START TYPE | DUTY | INSL | S.F. | AMB (° C) | ELEV. (Ft) |
|---|---|---|---|---|---|---|---|---|---|
| 3 | 60 | 460 | 18.8 | LINE OR INVERTER | CONT | H | 1.15 | 40 | 3300 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| F.L. EFF | 92.4 | 3/4 LD EFF | 92.4 | 1/2 LD EFF | 91.7 | GTD EFF | ELECT. TYPE |
| F.L. PF | 82.0 | 3/4 LD PF | 76.5 | 1/2 LD PF | 65.5 | 91.7 | SQ CAGE INV RATED |

| F.L. TORQUE | LR AMPS | L.R. TORQUE | B.D. TORQUE | F.L. RISE (° C) | |
|---|---|---|---|---|---|
| 44.5 LB-FT | 113 | 91.0 LB-FT 204% | 118 LB-FT 265% | 50 | |

| SOUND PRESSURE | SOUND | ROTOR WK² | MAX. LOAD WK² | SAFE STALL TIME | STARTS/HOUR | APROX. |
|---|---|---|---|---|---|---|
| 65 dBA | 74 dBA | 2.40 LB-FT² | 110 LB-FT² | 20 SEC. | 2 | 310 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 | NONE | NO | NONE | BLUE (EPOXY) |

| BEARINGS DE | BEARINGS ODE | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL | FRAME MATERIAL |
|---|---|---|---|---|---|---|---|
| BALL | BALL | POLYREX EM | T | NONE | NONE | 1045 HOT ROLLED (C-204) | CAST IRON |
| 6309 | 6209 | | | | | | |

| 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) | |
|---|---|---|---|---|---|---|
| 0.44 | 0.244 | 1.304 | 1.467 | 31.563 | 0.080 | |

*
NOTES
*

If Inverter equals NONE, contact factory for further information
**INVERTER TORQUE:** CONSTANT 10:1/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:**
**DATE:** 5/13/2020

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