marathon®

# Vertical Pump Motors

**Model No:** 256TTFNA16031
**Catalog No:** M893B

Vertical Pump Motor, 20 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 256HPV Frame, TEFC

©2026 Marathon, All Rights Reserved.

marathon®

# Product Information Packet: Model No: 256TTFNA16031, Catalog No: M893B  Vertical Pump Motor, 20 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 256HPV Frame, TEFC

## Nameplate Specifications

| | | | |
|---|---|---|---|
| Phase | **3** | Output HP | **20 Hp** |
| Output KW | **14.9 kW** | Voltage | **230/460 V** |
| Speed | **1775 r/min** | Synchronous RPM | **1800 r/min** |
| Service Factor | **1.15** | Frame | **256HPV** |
| Enclosure | **Totally Enclosed Fan Cooled** | Thermal Protection | **No Protection** |
| Efficiency | **93 %** | Ambient Temperature | **40 °C** |
| Frequency | **60 Hz** | Current | **48.0/24.1 A** |
| Power Factor | **84** | Duty | **Continuous** |
| Insulation Class | **F** | Design Code | **B** |
| KVA Code | **G** | Drive End Bearing Size | **6309** |
| Opp Drive End Bearing Size | **6210** | UL | **Recognized** |
| CSA | **Y** | CE | **Y** |
| IP Code | **43** | Number of Speeds | **1** |

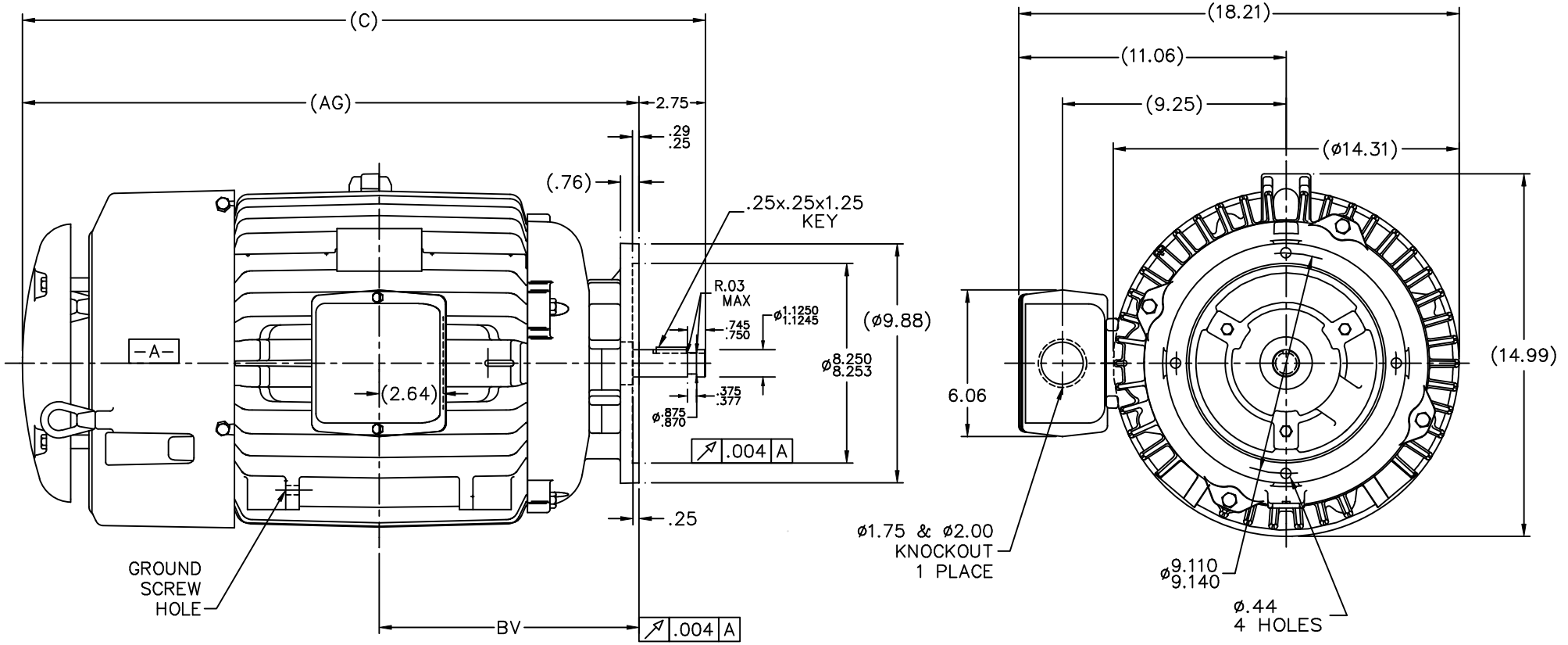
## Technical Specifications

| | | | |
|---|---|---|---|
| Electrical Type | **Squirrel Cage Induction Run** | Starting Method | **Across The Line** |
| Poles | **4** | Rotation | **Reversible** |
| Resistance Main | **.474 O** | Mounting | **Round** |
| Motor Orientation | **Shaft Down** | Drive End Bearing | **Ball** |
| Opp Drive End Bearing | **Ball** | Frame Material | **Cast Iron** |
| Shaft Type | **HP** | Overall Length | **28.26 in** |
| Frame Length | **12.25 in** | Shaft Diameter | **1 1/8 in** |
| Shaft Extension | **2.75 in** | Assembly/Box Mounting | **F1/F2 Capable** |

## Drawings

| | | | |
|---|---|---|---|
| Connection Drawing | **A-EE7308** | Outline Drawing | **B-SS203116-1225** |

This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created: 15/10/2026




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

| DASH | FRAME | C | AG | BV | |
|---|---|---|---|---|---|
| 1225 | 254-6HP | 28.26 | 25.51 | 10.75 | |
| | | | | | |
| | | | | | |
| | | | | | |

| NO. | REVISION | BY & DATE | CHK |
|---|---|---|---|
| 8 | REVISED DRAWING | RJW 04-04-2007 | |
| 7 | ROTATED C'BOX 90° CN 32714 | DRS 06-02-2004 | ML |
| 6 | ADDED GROUND SCREW HOLE CN 31554 | TJB 05-03-2001 | |
| 5 | .29/.25 WAS .19/.25 CN 29300-133 | DRS 09-05-2000 | |
| 4 | UPDATED CONDUIT BOX CN 28427 | TJB 01-25-2000 | |
| 3 | REV. PART DESCRIPTION TEFC WAS | | |

TOLERANCES UNLESS SPECIFIED: DEC. INCHES; .X ±.1; .XX ±.03; .XXX ±.005; .XXXX ±.0005; ANG ±7'30"

MARATHON ELECTRIC

TITLE OUTLINE - TEFC
250HP FR. - BB - TS - P'BASE

MAT'L.
FINISH
CAD FILE ss203116
RFP
DIST LB

DRAWN BLR 06-17-1996
CHK ML 06-19-1996
APPD BW 06-19-1996
SCALE 1=4
REF 280 HI MT. FR.
FMF
PREV

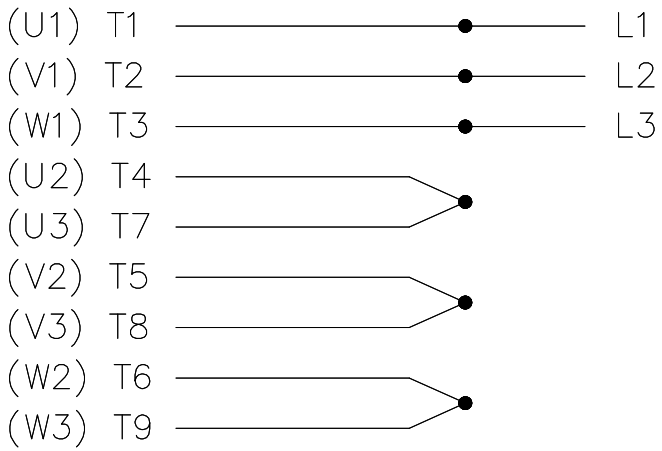
SIZE B | DRAWING NO. SS203116 | PAGE OF | REV. 8

THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED
THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT

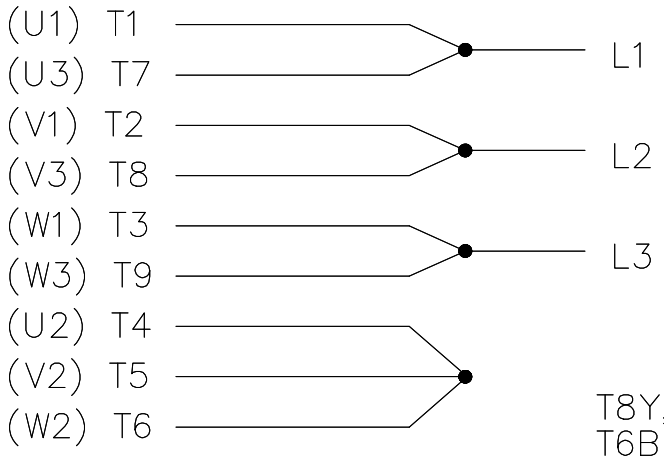
Uncontrolled Copy

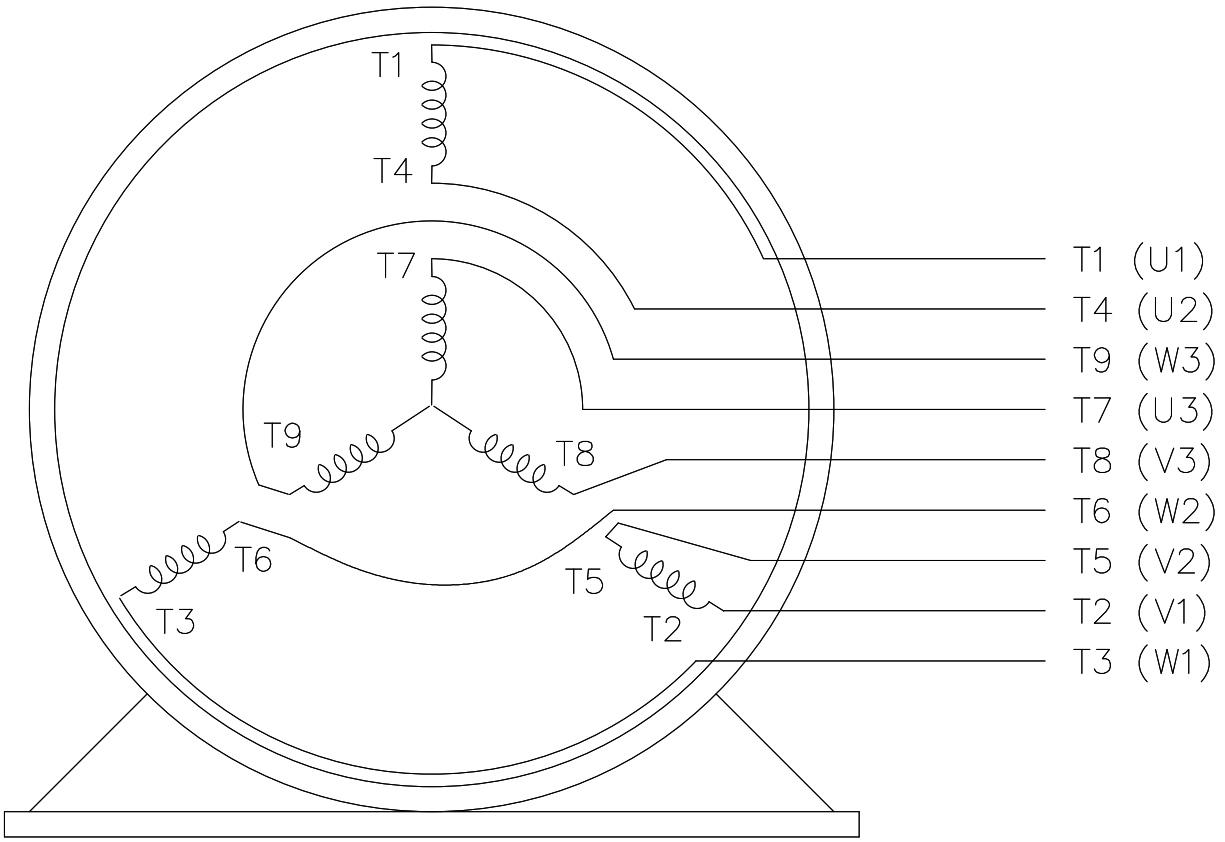
# THREE PHASE
# DUAL VOLTAGE MOTOR

## HIGH VOLTAGE




## LOW VOLTAGE




VIEW OF TERMINAL END

REF.
WINDING DIAGRAM

T8Y, T2Y, T2BL, T4BX, T2EC, T2G
T6BZ, T2B, T6BL, T4AV, T6B, T4B

## OPTIONAL CORD CONNECTION

| | |
|---|---|
| L1 | WHITE |
| L2 | RED |
| L3 | BLACK |

| | | |
|---|---|---|
| DRAWING REVISION: J | 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

COPYRIGHT (PER REVISION DATE) MARATHON ELECTRIC, LLC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF MARATHON ELECTRIC, LLC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.

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

| | |
|---|---|
| DRAWN BY: RM | |
| DATE: 11/20/1990 | |
| APPROVED BY: SAS | |
| DATE: 04/24/2003 | |
| REFERENCE | |
| THIRD ANGLE PROJECTION | |

marathon™

DESCRIPTION
CONN DIAGRAM-EXTERNAL
3Ø - DUAL VOLTAGE MOTOR

| MATERIAL | PROCESS/FINISH |
|---|---|
| | |

| SIZE | DRAWING NUMBER | SHEET |
|---|---|---|
| A | 4 of 5 EE7308 | 1 OF 1 |

Uncontrolled Copy

# Data Sheet

**Date:** 12/3/2018
**Customer:**
**Attention:**
**Submitted by:** FAREEDA DUDEKULA

marathon® electric

256TTFNA16031

**Submittal**

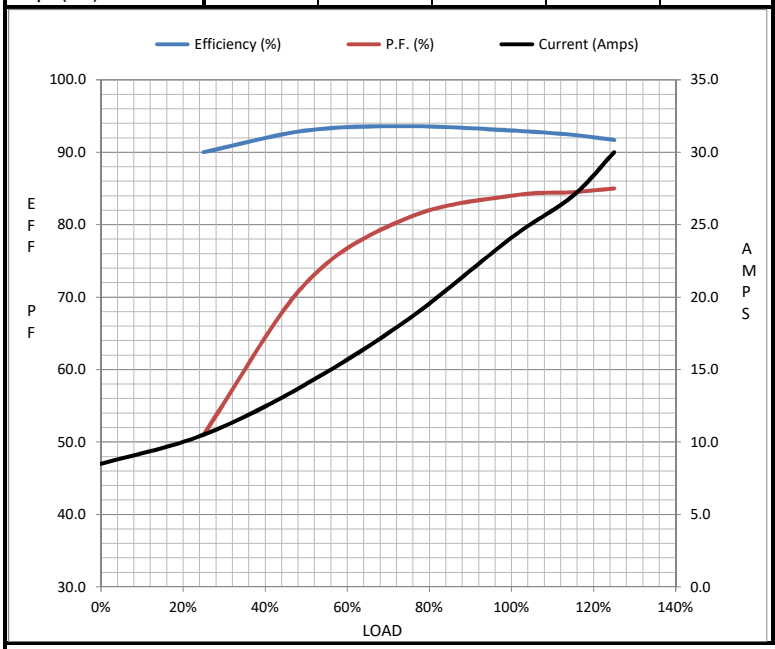
Data @ 460 V

## Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR | |
|---|---|---|---|---|---|---|---|---|---|
| Current (Amps) | 8.5 | 10.5 | 14.0 | 18.5 | 24.1 | 27.0 | 30.0 | 138 | |
| Torque (ft-lb) | 0.00 | 14.5 | 29.5 | 44.5 | 59.2 | 68.0 | 74.5 | 105 | |
| RPM | 1800 | 1795 | 1785 | 1780 | 1775 | 1,770 | 1760 | 0 | |
| Efficiency (%) | | 90.0 | 93.0 | 93.6 | 93.0 | 92.4 | 91.7 | | |
| P.F. (%) | 8.5 | 51.0 | 72.0 | 81.0 | 84.0 | 84.5 | 85.0 | 40.0 | |

## Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|---|---|---|---|---|---|
| Speed (RPM) | 0 | 900 | 1625 | 1775 | 1800 |
| Current (Amps) | 138 | 115 | 86.0 | 24.1 | 8.5 |
| Torque (ft-lb) | 105 | 100 | 146 | 59.2 | 0.00 |




## Information Block

| | | |
|---|---|---|
| HP | 20.0 | |
| Sync. RPM | 1800 | |
| Frame | 256 | |
| Enclosure | TEFC | |
| Construction | TFS | |
| Voltage | 230/460 | V |
| Frequency | 60 | Hz |
| Design | B | |
| LR Code letter | G | |
| Service Factor | 1.15 | |
| Temp Rise @ FL | 65 | ° C |
| Duty | CONT | |
| Ambient | 40 | ° C |
| Elevation | 1,000 | feet |
| Rotor/Shaft wk² | 3.2 | Lb-Ft² |
| Ref Wdg | K2564164 NONE | |
| Sound Pressure @ 1M | 65 | dBA |
| VFD Rating | NONE | |
| Outline Dwg | B-SS203116-1225 | |
| Conn. Diag | A-EE7308 | |
| Additional Specifications: | | |
| 0 | | |
| 0 | | |

EQUIV CKT (OHMS / PHASE)

| R1 | R2 | X1 | X2 | Xm |
|---|---|---|---|---|
| 0.2670 | 0.2070 | 0.9900 | 1.4910 | 28.4000 |

## Speed -Torque Curve

