marathon®

# Inverter (Vector) Duty Motors

**Model No:** 184THTCD8028
**Catalog No:** Y564A

Inverter (Vector) Duty Motor, 5 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 184TC Frame, TENV

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# Product Information Packet: Model No: 184THTCD8028, Catalog No: Y564A  Inverter (Vector) Duty Motor, 5 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 184TC Frame, TENV

## Nameplate Specifications

| | | | |
|---|---|---|---|
| Phase | **3** | Output HP | **5 Hp** |
| Output KW | **3.7 kW** | Voltage | **230/460 V** |
| Speed | **1760 r/min** | Synchronous RPM | **1800 r/min** |
| Service Factor | **1.00** | Frame | **184TC** |
| Enclosure | **Totally Enclosed Non Ventilated** | Thermal Protection | **Thermostat** |
| Efficiency | **89.5 %** | Ambient Temperature | **40 °C** |
| Frequency | **60 Hz** | Current | **13.0/6.5 A** |
| Power Factor | **77** | Duty | **Continuous** |
| Insulation Class | **H** | Design Code | **INV** |
| KVA Code | **L** | Drive End Bearing Size | **6206** |
| Opp Drive End Bearing Size | **6306** | UL | **Recognized** |
| CSA | **Y** | CE | **Y** |
| IP Code | **55** | Number of Speeds | **1** |

## Technical Specifications

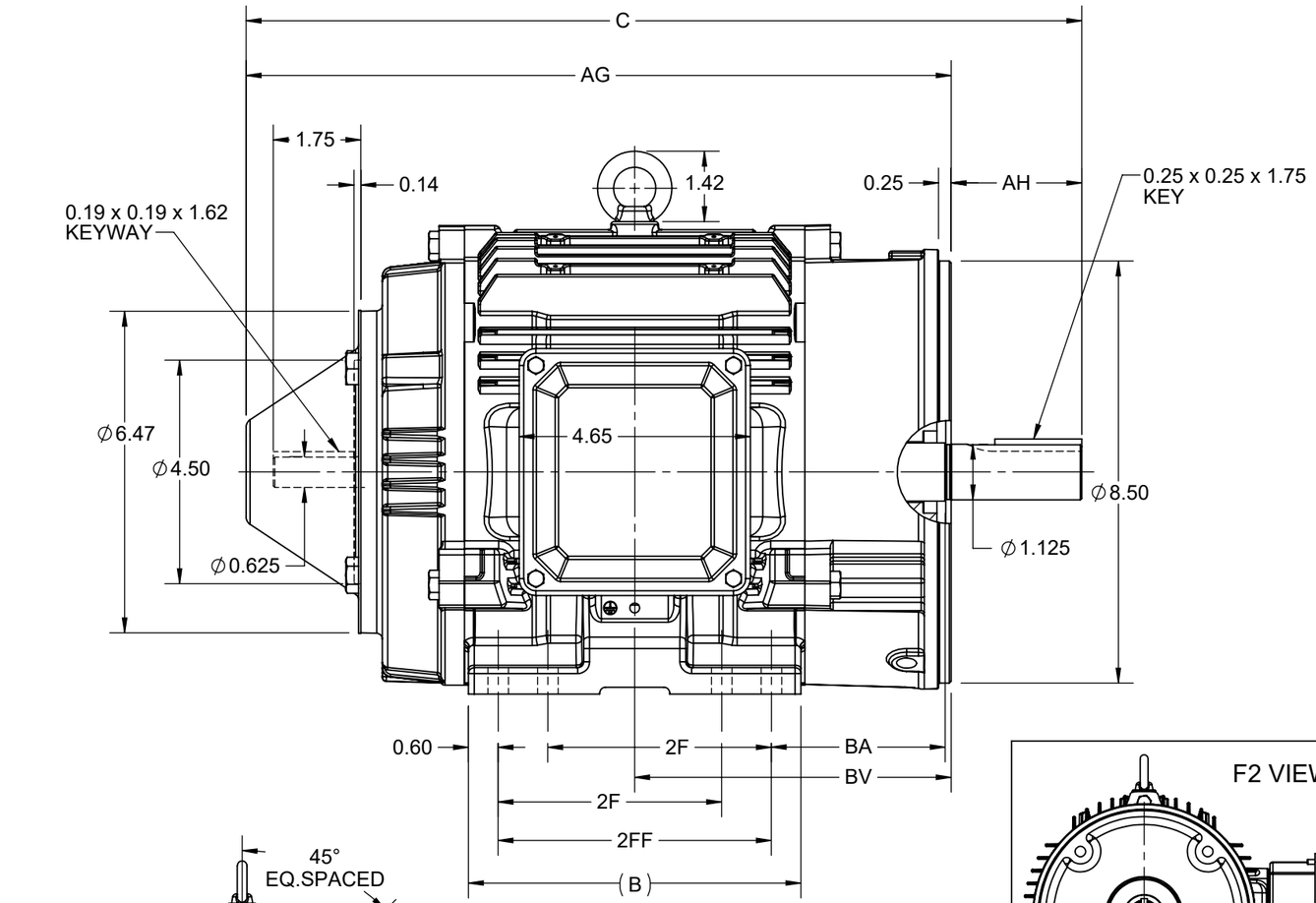
| | | | |
|---|---|---|---|
| Electrical Type | **Squirrel Cage Inverter Duty** | Starting Method | **Inverter Only** |
| Poles | **4** | Rotation | **Reversible** |
| Resistance Main | **2.012 O** | Mounting | **Rigid Base** |
| Motor Orientation | **Horizontal** | Drive End Bearing | **Ball** |
| Opp Drive End Bearing | **Ball** | Frame Material | **Cast Iron** |
| Shaft Type | **T** | Shaft Diameter | **1.125 in** |
| Assembly/Box Mounting | **F1/F2 Capable** | Inverter Load | **Constant 2000:1** |

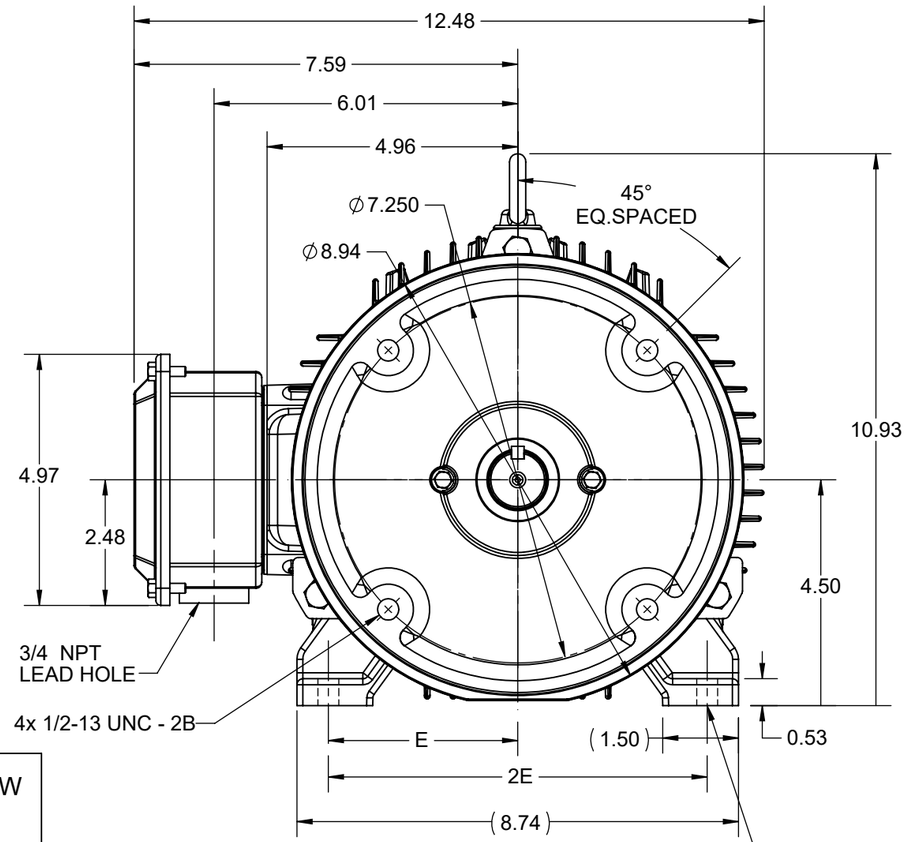
## Drawings

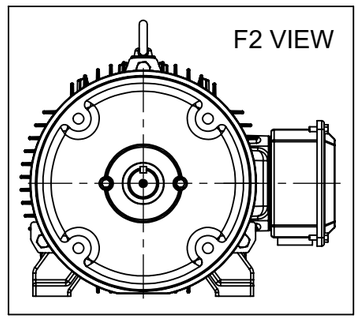
| | | | |
|---|---|---|---|
| Connection Drawing | **EE7308T** | Outline Drawing | **SS600239-200** |

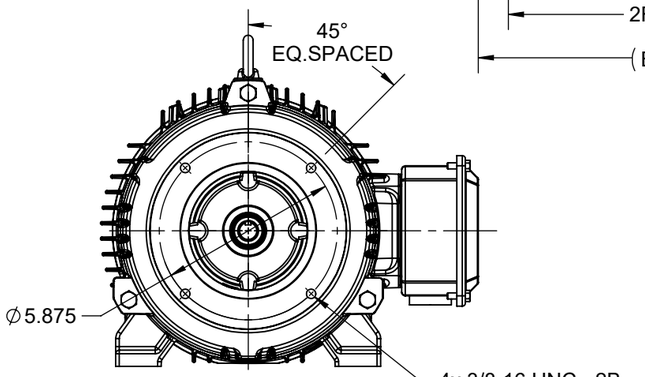
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| DASH NO. | B | C | E | 2E | 2F | 2FF | AG | AH | BA | BV | MOUNTING | FRAME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | 5.67 | 15.81 | 3.75 | 7.50 | --- | 4.50 | 13.19 | 2.62 | 3.50 | 5.87 | F1 OR F2 | 182TC |
| 200 | 6.69 | 16.81 | | | 4.50 | 5.50 | 14.19 | | | 6.37 | | 182/184TC |




ODE VIEW
COVER REMOVED

| DRAWING REVISION | REVISION BY | REV DATE/© DATE |
|---|---|---|
| B | SB | 07/23/2025 |
| REQUEST NUMBER | APPROVED BY | DATE |
| CR-0023556 | SBD | 07/23/2025 |

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

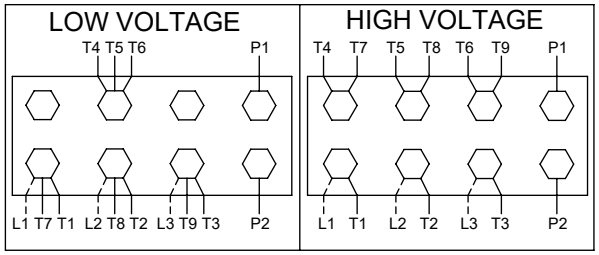
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PRIMARY DIMENSIONS ARE INCH
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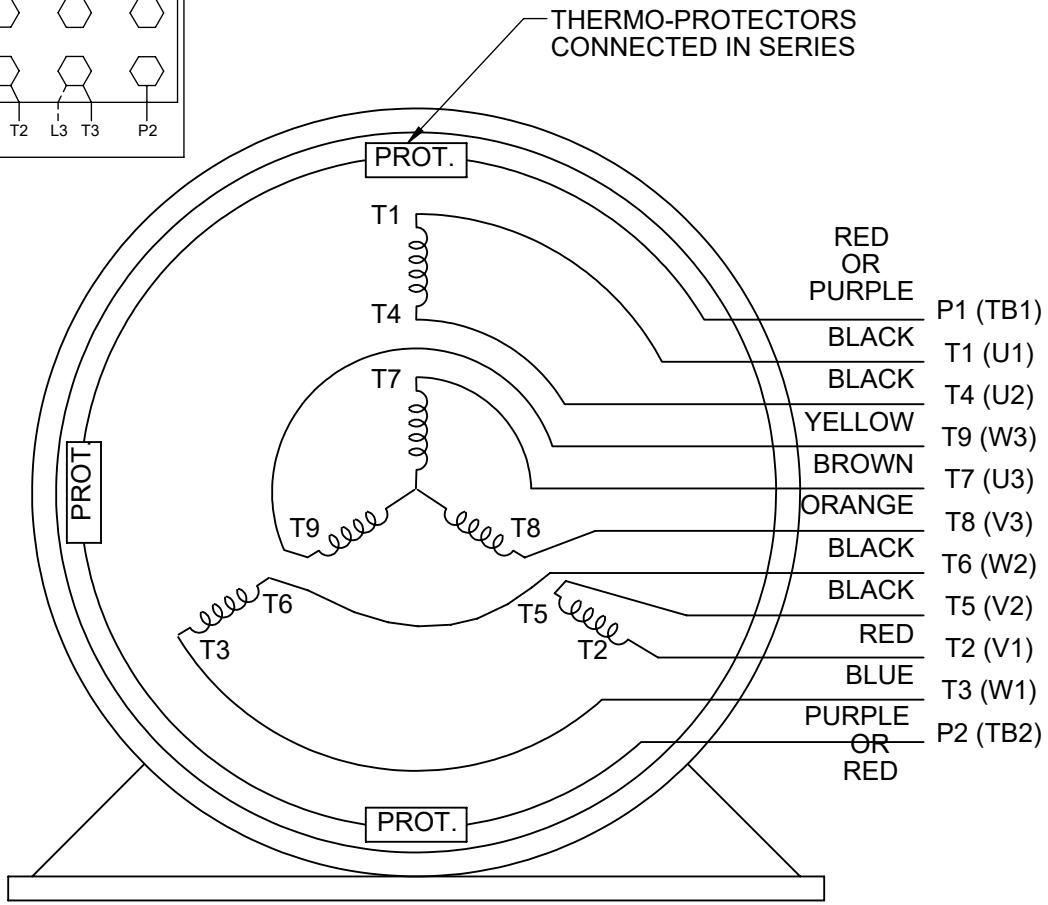
| DRAWN BY | DESCRIPTION |
|---|---|
| VS | OUTLINE |
| DATE | 182/184TC NEMA-ODE 4.5 AK BRKT-TENV |
| 28-01-2021 | |
| APPROVED BY | |
| MSH | |
| DATE | |
| 28-01-2021 | |
| REFERENCE | MATERIAL / PROCESS/FINISH |
| THIRD ANGLE PROJECTION | SIZE B / DRAWING NUMBER SS600239 / SHEET 1 OF 1 |

## 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
(U3) T7 — L1
(V1) T2
(V3) T8 — L2
(W1) T3
(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:** 7/27/2022
**Customer:**
**Attention:**
**Submitted by:**

marathon® Motors

**184THTCD8028**

**Submittal**

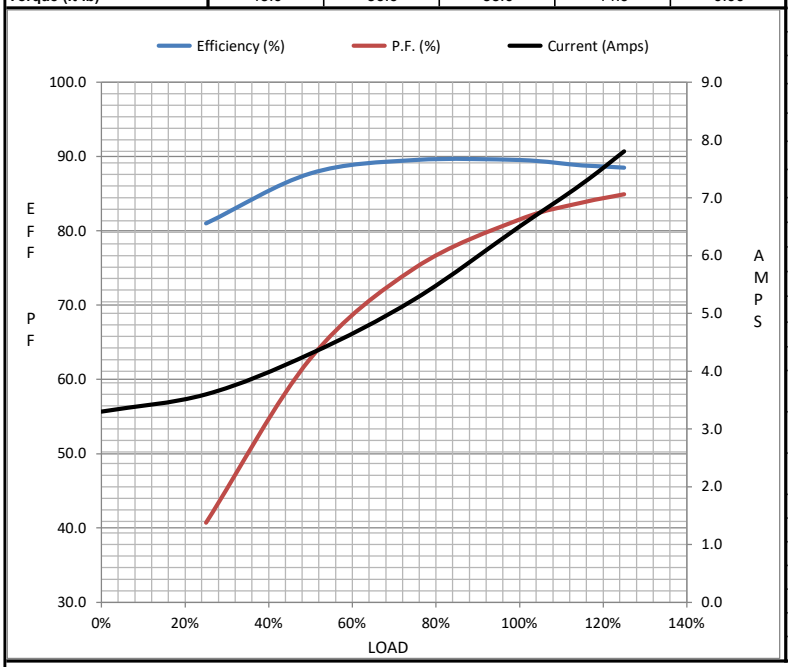
**Data @ 460 V**

## Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR | |
|---|---|---|---|---|---|---|---|---|---|
| Current (Amps) | 3.3 | 3.6 | 4.3 | 5.3 | 6.5 | 7.2 | 7.8 | 58.0 | |
| Torque (ft-lb) | 0.00 | 3.7 | 7.4 | 11.1 | 14.9 | 17.2 | 18.8 | 43.0 | |
| RPM | 1800 | 1790 | 1780 | 1770 | 1760 | 1,756 | 1750 | 0 | |
| Efficiency (%) | | 81.0 | 87.7 | 89.5 | 89.5 | 88.8 | 88.5 | | |
| P.F. (%) | 7.9 | 40.7 | 62.8 | 75.0 | 81.5 | 83.8 | 84.9 | 55.1 | |

## Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|---|---|---|---|---|---|
| Speed (RPM) | 0 | 880 | 1300 | 1760 | 1800 |
| Current (Amps) | 58.0 | 52.2 | 41.0 | 6.5 | 3.3 |
| Torque (ft-lb) | 43.0 | 36.6 | 55.0 | 14.9 | 0.00 |




## Information Block

| | | |
|---|---|---|
| HP | 5.0 | |
| Sync. RPM | 1800 | |
| Frame | 184 | |
| Enclosure | TENV | |
| Construction | TTC | |
| Voltage | 230/460 | V |
| Frequency | 60 | Hz |
| Design | INV | |
| LR Code letter | L | |
| Service Factor | 1.0 | |
| Temp Rise @ FL | 105 | ° C |
| Duty | CONT | |
| Ambient | 40 | ° C |
| Elevation | 3,300 | feet |
| Rotor/Shaft wk² | 0.40 | Lb-Ft² |
| Ref Wdg | HA31124031 NONE | |
| Sound Pressure @ 1M | 62 | dBA |
| VFD Rating | CONSTANT 2000:1 | |
| Outline Dwg | | |
| Conn. Diag | EE7308T | |

Additional Specifications:

0

0

EQUIV CKT (OHMS / PHASE)

| R1 | R2 | X1 | X2 | Xm |
|---|---|---|---|---|
| 1.5310 | 1.0770 | 3.2150 | 3.6400 | 80.4010 |

## Speed -Torque Curve

