ABB BALDOR RELIANCE

# Customer information packet

## EM251452T-4

450HP, 3570RPM, 3PH, 60HZ, 449TS, A44112M, DP
Class - None
Division - Not Applicable

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11/1/2026 5:54:39 AM

## Specifications

| | |
|---|---|
| **Enclosure** | DP |
| **Frame** | 449TS |
| **Frame Material** | Iron |
| **Frequency** | 60.00 Hz |
| **Haz Area Class and Group** | None |
| **Haz Area Division** | Not Applicable |
| **Motor Letter Type** | Three Phase |
| **Output @ Frequency** | 450.000 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 3600 RPM @ 60 HZ |
| **Voltage @ Frequency** | 460.0 V @ 60 HZ |
| **Agency Approvals** | CURUSEEV |
| **Ambient Temperature** | 40 °C |
| **Auxiliary Box** | NO AUXILLARY BOX |
| **Base Indicator** | Rigid |
| **Bearing Grease Type** | Polyrex EM (-20F +300F) |
| **Current @ Voltage** | 494.000 A @ 460.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 96.2 % |
| **Feedback Device** | NO FEEDBACK |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 494.0 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Ready |
| **IP Rating** | NONE |
| **KVA Code** | F |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Motor Lead Quantity/Wire Size** | 12 @ 1 AWG |
| **Motor Standards** | NEMA |
| **Motor Type** | A44112M |

## Part Detail

| | |
|---|---|
| **Revision** | E |
| **Type** | AC |
| **Mech. spec.** | |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | A44WG2693 |
| **Layout** | 604989-664 |
| **Eff. date** | 09-25-2025 |
| **CD Diagram** | 416820-008 |
| **Poles** | 02 |
| **Leads** | 6#1 (02 per group) |
| **Proprietary** | False |
| **Created date** | 02-09-2015 |

| | |
|---|---|
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 2 |
| **Overall Length** | 44.31 IN |
| **Power Factor** | 88 |
| **Product Family** | General Industrial |
| **Pulley End Bearing Type** | Ball |
| **Pulley Face Code** | Standard |
| **Service Factor** | 1.15 |
| **Shaft Diameter** | 2.375 IN |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | No Slinger |
| **Speed** | 3570 rpm |
| **Speed Code** | Single Speed |
| **Starting Method** | Wye Start - Delta Run |
| **Thermal Device - Bearing** | None |
| **Thermal Device - Winding** | None |

**Nameplate**

| NP2496L |
|---|
| MOBIL POLYREX EM |

| NP2349L | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SPEC NO.** | A44-6799-2693 | **CAT.NO.** | EM251452T-4 | | | | | | | **FRAME** | 449TS | |
| **HP** | 450 | **VOLTS** | 460 | **PHASE** | 3 | **DESIGN** | B | **TYPE** | P | | | |
| **RPM** | 3570 | **AMPS** | 494 | **HZ** | 60 | **AMB** | 40 | **SF** | 1.15 | | | |
| **DRIVE END BEARING** | 65BC03J30X | **DUTY** | CONT | **INSUL.CLASS** | F | | | | | | | |
| **OPP D.E. BEARING** | 65BC03J30X | **ENCL** | DP | **CODE** | F | | | | | | | |
| **SER.NO.** | | **POWER FACTOR** | 88 | | | | | **NEMA-NOM-EFFICIENCY** | 96.2 | | | |
| | | | | | | **MAX CORR KVAR** | 75 | **GUARANTEED EFFICIENCY** | 95.4 | | | |
| | | | | | | **NEMA NOM/CSA QUOTED EFF** | | | | | | |
| | | | | | | | | **MOTOR WEIGHT** | 2080 | | | |

| REL. S.O. | FRAME | HP | TYPE | PHASE/ HERTZ | RPM | VOLTS |
|---|---|---|---|---|---|---|
| | 449T | 450 | P | 3/60 | 3570 | 460 |

| AMPS | DUTY | AMB °C/ INSUL. | S.F. | NEMA DESIGN | CODE LETTER | ENCL. |
|---|---|---|---|---|---|---|
| 494 | CONT | 40/F | 1.15 | B | F | PRXE |

| E/S | ROTOR | TEST S.O. | TEST DATE | STATOR RES.@25 °C OHMS (BETWEEN LINES) |
|---|---|---|---|---|
| 433499 | 418143013KE | --- | --- | .00760 |

PERFORMANCE

| LOAD | HP | AMPERES | RPM | % POWER FACTOR | % EFFICIENCY |
|---|---|---|---|---|---|
| NO LOAD | 0 | 124 | 3600 | 4.41 | 0 |
| 1/4 | 113 | 170 | 3593 | 65.6 | 94.5 |
| 2/4 | 225 | 263 | 3586 | 83.2 | 96.3 |
| 3/4 | 337 | 374 | 3578 | 87.4 | 96.5 |
| 4/4 | 450 | 494 | 3570 | 88.4 | 96.3 |
| 5/4 | 562 | 618 | 3561 | 88.8 | 95.9 |
| | | | | | |

SPEED TORQUE

| | RPM | TORQUE % FULL LOAD | TORQUE LB.-FT. | AMPERES |
|---|---|---|---|---|
| LOCKED ROTOR | 0 | 198 | 1310 | 2870 |
| PULL UP | 2550 | 161 | 1064 | 2300 |
| BREAKDOWN | 3472 | 213 | 1409 | 1539 |
| FULL LOAD | 3570 | 100 | 661 | 494 |

AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE

REMARKS: CALCULATED DATA
XE MOTOR, NEMA NOM. EFF. 96.2%

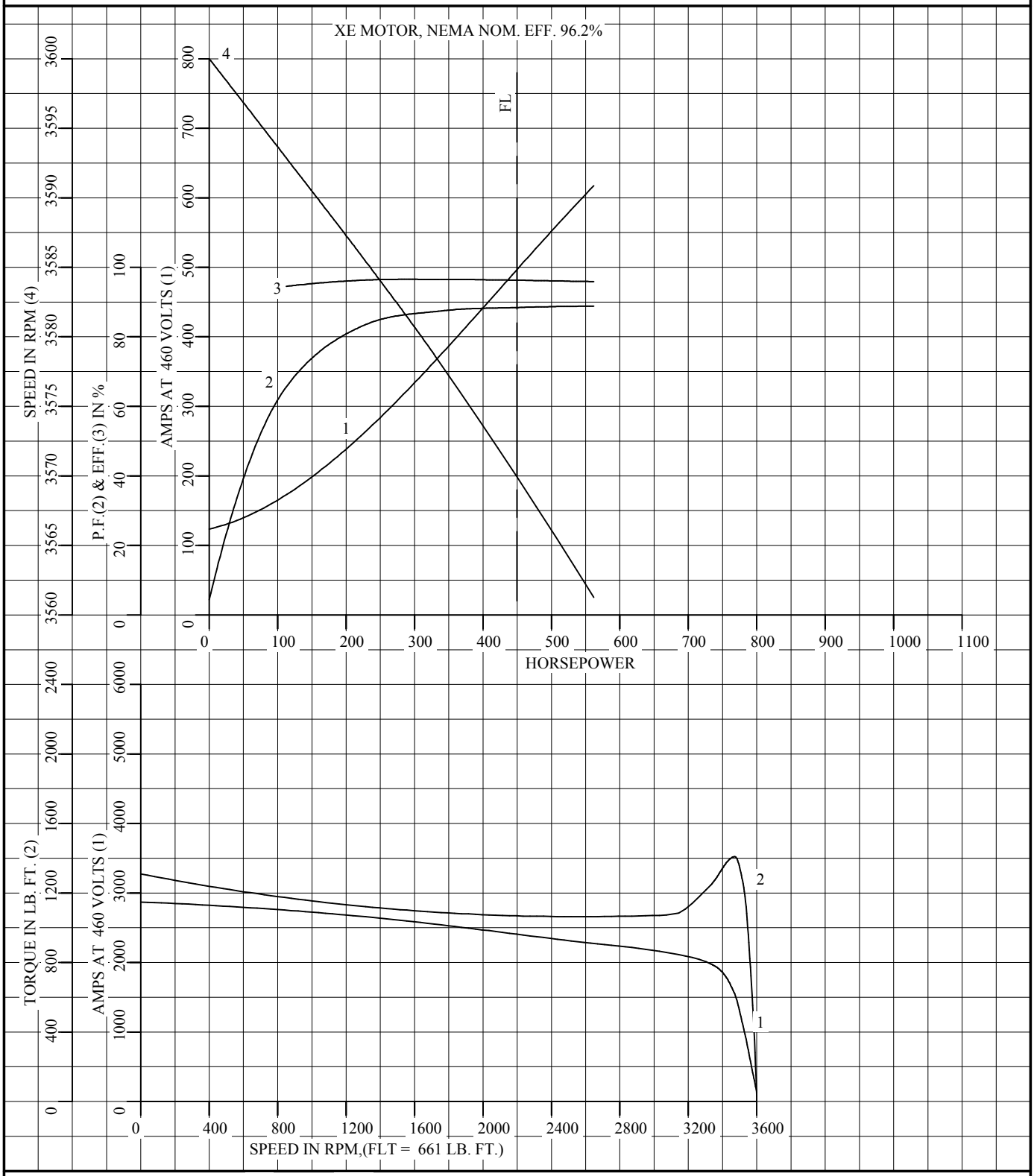
BALDOR
A MEMBER OF THE ABB GROUP

DR. BY J.J.HARRISON
CK. BY W. L. SMITH
APP. BY W.L.SMITH
DATE 01/21/2010

A-C MOTOR PERFORMANCE DATA

A44WG2693-R001
ISSUE DATE 01/21/20

| | | | |
|---|---|---|---|
| REL S.O. | RPM 3570 | S.F. 1.15 | ROTOR 418143013KE |
| FRAME 449T | VOLTS 460 | NEMA DESIGN B | TEST S.O. CALCULATED DATA |
| HP 450 | AMPS 494 | CODE LETTER F | TEST DATE --- |
| TYPE P | DUTY CONT | ENCLOSURE PRXE | STATOR RES.@ 25 °C .00760 |
| PHASE/HERTZ 3/60 | AMB °C/INSUL 40/F | E/S 433499 | OHMS (BETWEEN LINES) |




AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

BALDOR A MEMBER OF THE ABB GROUP

| | |
|---|---|
| DR. BY | J.J.HARRISON |
| CK. BY | W. L. SMITH |
| APP. BY | W.L.SMITH |
| DATE | 01/21/2010 |

**A-C MOTOR PERFORMANCE CURVES** A44WG2693-R001 ISSUE DATE 01/21/2010

# DUTY MASTER ALTERNATING CURRENT MOTORS

604989-664

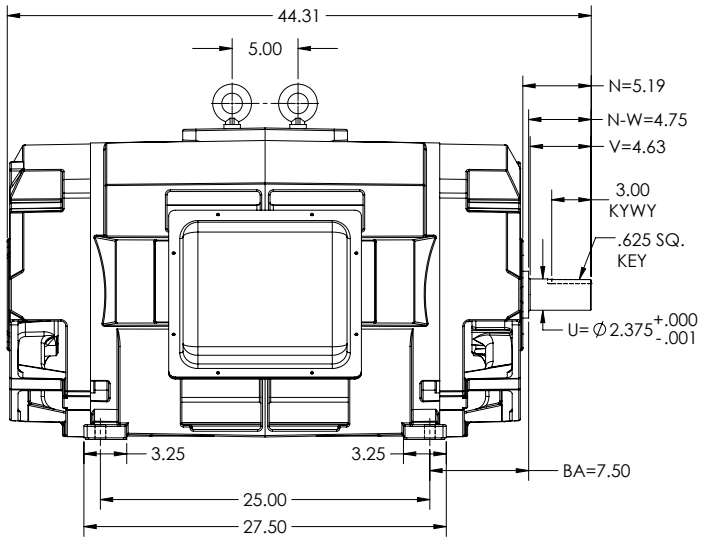
ENCLOSURE: OPEN DRIP-PROOF

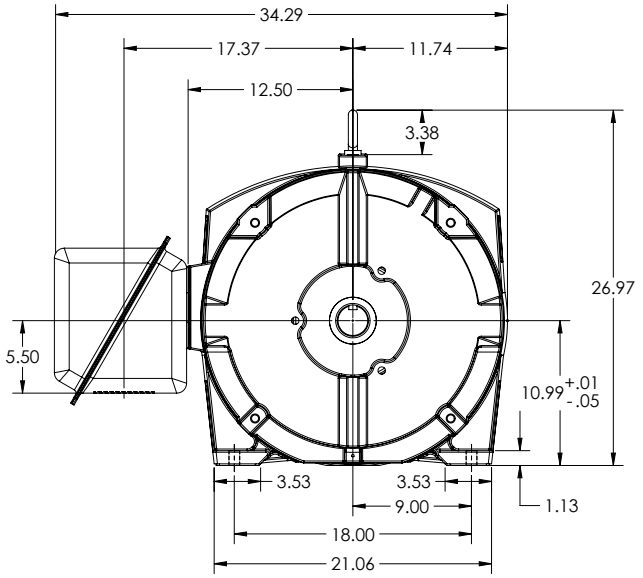
SQUIRREL-CAGE INDUCTION

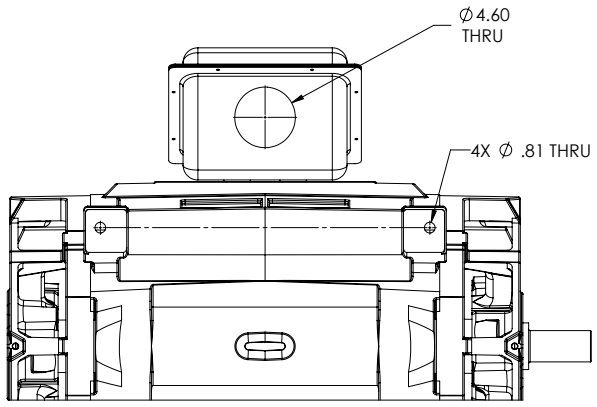
MOUNTING: FOOT, F-1

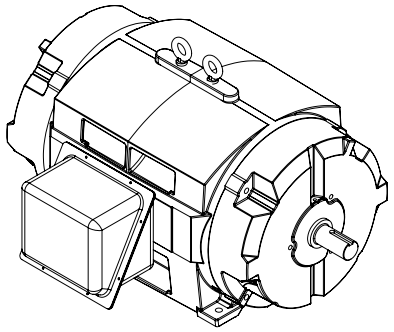
E449TS FRAME MOUNTING

COOLING: NON-VENTILATED



DIMENSIONS ARE IN INCHES.
WEIGHT (LBS) 2100, MAY VARY 15% DEPENDING ON RATING.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

SHEET NUMBER 1 OF 1

604989-664

IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

MAX PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .003 T.I.R.

| | | | |
|---|---|---|---|
| REV. DESC: NEW | | | |
| REV: - | VERSION: 00 | REVISED: 10:26:10 10/22/2020 | TDR: 000001151313 |
| MODEL NO. 604989-664 | | | |
| BY: USJOSUL | | C | |

BALDOR

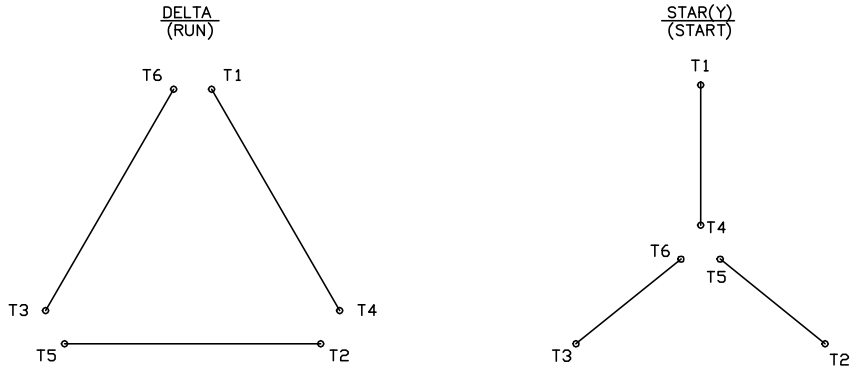
449TS ODP F1 FT S -

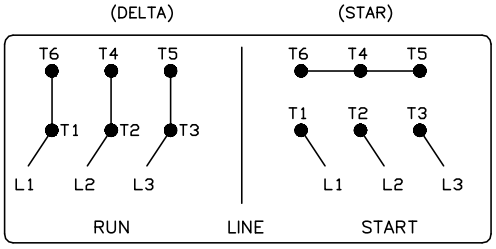
604989-664

416820–008

# A–C MOTOR
# CONNECTION DIAGRAM

## STANDARD 6 LEAD Y START – DELTA RUN




(N. P. 1767-DC)

| | | |
|---|---|---|
| REV. DESC: ADDED T4 TO Y CONNECT DIAGRAM | | |
| REV. LTR: D | VERSION: 04 | TDR: 000000847713 |
| FILE: \RAG\00001\808 | REVISED: 10:41:26 04/08/2014 | BY: RAGJSS1 |
| MTL: – | | |

BALDOR

CONNECT DIAGRAM STD 6 LEAD Y START DELTA RUN

SH 1 of 1

416820–008