

# **BALDOR**® • *RELIANCE*

## **Product Information Packet**

# **EM44354TS-4**

**350HP, 1780RPM, 3PH, 60HZ, 449TS, TEFC, F1**

| Part Detail |                    |                |         |             |           |               |            |
|-------------|--------------------|----------------|---------|-------------|-----------|---------------|------------|
| Revision:   | A                  | Status:        | PRD/A   | Change #:   |           | Proprietary:  | No         |
| Type:       | AC                 | Prod. Type:    | A44160M | Elec. Spec: | A44WG3038 | CD Diagram:   | 416820-008 |
| Enclosure:  | TEFC               | Mfg Plant:     |         | Mech. Spec: |           | Layout:       | 617427-445 |
| Frame:      | 449TS              | Mounting:      | F1      | Poles:      | 04        | Created Date: | 04-06-2015 |
| Base:       |                    | Rotation:      | R       | Insulation: | F         | Eff. Date:    | 06-03-2016 |
| Leads:      | 6#1 (02 per group) |                |         |             |           | Replaced By:  |            |
| Literature: |                    | Elec. Diagram: |         |             |           |               |            |

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

| Nameplate NP2349L |               |       |      |              |             |                         |                     |       |                       |      |
|-------------------|---------------|-------|------|--------------|-------------|-------------------------|---------------------|-------|-----------------------|------|
| SPEC NO.          | A44-7095-3038 |       |      | CAT.NO.      | EM44354TS-4 |                         |                     | FRAME | 449TS                 |      |
| HP                | 350           | VOLTS | 460  | PHASE        | 3           | DESIGN                  | B                   | TYPE  | P                     |      |
| RPM               | 1780          | AMPS  | 392  | HZ           | 60          | AMB                     | 40                  | SF    | 1.15                  |      |
| DRIVE END BEARING | 90BC03J30X    |       | DUTY | CONT         |             | INSUL.CLASS             | F                   |       |                       |      |
| OPP D.E. BEARING  | 90BC03J30X    |       | ENCL | TEFC         |             | CODE                    | G                   |       |                       |      |
| SER.NO.           |               |       |      | POWER FACTOR | 87          |                         | NEMA-NOM-EFFICIENCY | 96.2  |                       |      |
|                   |               |       |      |              |             | MAX CORR KVAR           | 67                  |       | GUARANTEED EFFICIENCY | 95.4 |
|                   |               |       |      |              |             | NEMA NOM/CSA QUOTED EFF |                     |       |                       |      |
|                   |               |       |      |              |             | MOTOR WEIGHT            | 3027                |       |                       |      |

| Parts List  |                                       |          |
|-------------|---------------------------------------|----------|
| Part Number | Description                           | Quantity |
| SA296205    | SA A44-7095-3038                      | 1.000 EA |
| RA282249    | RA A44-7095-3038                      | 1.000 EA |
| 421948044   | LABEL, MYLAR                          | 1.000 EA |
| NP2496L     | MOTOR LUBE NAMEPLATE                  | 1.000 EA |
| 000613006PU | N/P (RELEASE QTY 10,000) UL CSA LABEL | 1.000 EA |
| 000692000FF | N/P                                   | 1.000 EA |
| 000692000VD | LABEL WARNING                         | 1.000 EA |
| NP2349L     | SUPER-E ,SS, CSA, CSA SUPER-E         | 1.000 EA |
| 089490099A  | G28 BRKT 089490098WCA KB              | 1.000 EA |
| 415072001B  | CLAMP                                 | 1.000 EA |
| 083199126A  | G440 MOLDED FAN COVER                 | 1.000 EA |
| 034180014DA | KEY 1/4X1/4X1-3/4 L                   | 1.000 EA |
| 078557001E  | FAN 440 078557001F                    | 1.000 EA |
| 004824015A  | GREASE POLYREX EM                     | 1.160 LB |
| 032018020FK | HHCS 3/4-10X2-1/2 PLTD.               | 4.000 EA |
| 032018008CK | HHCS 3/8-16X1L PLATED                 | 4.000 EA |
| 032018030DK | HHCS 1/2-13X3-3/4 PLTD.               | 3.000 EA |
| 034630002AB | CPLG 1/4" PLATED                      | 1.000 EA |
| 415096002A  | CPLG 1/8 HEX TYPE                     | 1.000 EA |
| 410700004A  | WSHR                                  | 1.000 EA |
| 034017014AB | LCKW 3/8 STD. PLATED                  | 4.000 EA |
| 034530072BB | PIPE NIPPLE,DE - 440-BS               | 1.000 EA |
| 034530072AB | P/NIP 1/8X9"L Threaded both ends      | 1.000 EA |
| 034690005AB | PPLG 3/4 PLATED                       | 1.000 EA |

| <b>Parts List (continued)</b> |  |                 |
|-------------------------------|--|-----------------|
| <b>Part Number</b>            | <b>Description</b>                     | <b>Quantity</b> |
| 034690002AB                   | "unbulked" PPLG 1/4" PLTD.             | 1.000 EA        |
| 034690001AB                   | SQHDPLG, COND                          | 1.000 EA        |
| 032620016LA                   | SOCKET SET SCREW-449                   | 3.000 EA        |
| 702623022A                    | G28 AIR DEFLECTOR DRIVE END -- PLASTIC | 1.000 EA        |
| 418151014G                    | RETAIN RING                            | 1.000 EA        |
| 034630002AB                   | CPLG 1/4" PLATED                       | 1.000 EA        |
| 034530072BB                   | PIPE NIPPLE,DE - 440-BS                | 1.000 EA        |
| 034690002AB                   | "unbulked" PPLG 1/4" PLTD.             | 1.000 EA        |
| 034690001AB                   | SQHDPLG, COND                          | 1.000 EA        |
| 702623013A                    | THERMAL BARRIER -- G28 -- BRACKET MTD  | 1.000 EA        |
| 032018004BK                   | HHCS 5/16-18X1/2 PLATED                | 3.000 EA        |
| 034017013AB                   | LCKW 5/16 STD. PLATED                  | 3.000 EA        |
| 089490099A                    | G28 BRKT 089490098WCA KB               | 1.000 EA        |
| 032018020FK                   | HHCS 3/4-10X2-1/2 PLTD.                | 4.000 EA        |
| 032018030DK                   | HHCS 1/2-13X3-3/4 PLTD.                | 3.000 EA        |
| 034530072AB                   | P/NIP 1/8X9"L Threaded both ends       | 1.000 EA        |
| 415096002A                    | CPLG 1/8 HEX TYPE                      | 1.000 EA        |
| 032018006BK                   | HHCS 5/16-18X3/4 PLATED                | 3.000 EA        |
| 034001013AB                   | FTW BAFFLE                             | 3.000 EA        |
| 415915007G                    | GASK, LAC                              | 1.000 FT        |
| 406056008A                    | GASKET, TERBD 440                      | 1.000 EA        |
| 418150003A                    | GREASE FITTING CAP                     | 1.000 EA        |
| 032018008DK                   | HHCS 1/2-13X1 PLATED                   | 4.000 EA        |
| 702616012T                    | CONDUIT BOX                            | 1.000 EA        |

Product Information Packet: EM44354TS-4 - 350HP,1780RPM,3PH,60HZ,449TS,TEFC,F1

|             |                                       |          |
|-------------|---------------------------------------|----------|
| 035000001A  | ALFTG 1/8" 1610-BL                    | 1.000 EA |
| 406099000A  | PLUG - FAN COVER 320-440              | 1.000 EA |
| 035000001A  | ALFTG 1/8" 1610-BL                    | 1.000 EA |
| 418150003A  | GREASE FITTING CAP                    | 1.000 EA |
| MG1025Y03   | WILKOFAS, 789.701, SUPER E PEARL GOLD | 2.000 QT |
| 033775004EA | DRSCR #6-1/4 304 S.S.                 | 2.000 EA |
| 034180024HA | KEY 5/8X5/8X3 L                       | 1.000 EA |
| 604797056   | 400-447 FRAME 60 X 42                 | 1.000 EA |
| 032510026D  | CARRIAGE BOLT - 440                   | 2.000 EA |
| 034001014AB | FLAT WASHER 3/8"PLATED                | 2.000 EA |
| 034001016AB | WSHR .562ID 1.375OD .109              | 2.000 EA |
| 033300014AC | HEX NUT, SHIPPING - 400               | 2.000 EA |
| 604797003C  | SHIPPING BAG                          | 1.000 EA |

|            |             |                   |           |  |             |       |
|------------|-------------|-------------------|-----------|--|-------------|-------|
| REL. S. O. | FRAME       | HP                | TYPE      | PHASE/HERTZ                                | RPM         | VOLTS |
|            | 449TZ       | 350               | P         | 3/60                                       | 1780        | 460   |
| AMPS       | DUTY        | AMB °C/<br>INSUL. | S. F.     | NEMA DESIGN                                | CODE LETTER | ENCL. |
| 392        | CONT        | 40/F              | 1.15      | B  | G           | TEFC  |
| E/S        | ROTOR       | TEST S. O.        | TEST DATE | STATOR RES. @25 °C<br>(OHMS BETWEEN LINES) |             |       |
| 433770     | 418143045TE | ---               | ---       | .00800                                     |             |       |

PERFORMANCE

| LOAD    | HP   | AMPERES | RPM  | POWER FACTOR % | EFFICIENCY % |
|---------|------|---------|------|----------------|--------------|
| NO LOAD | 0    | 98.2    | 1800 | 4.56           | 0            |
| 1/4     | 87.6 | 136     | 1796 | 64.2           | 94.3         |
| 2/4     | 175  | 207     | 1791 | 82.1           | 96.2         |
| 3/4     | 262  | 296     | 1787 | 86.1           | 96.5         |
| 4/4     | 350  | 393     | 1782 | 86.7           | 96.3         |
| 5/4     | 438  | 493     | 1776 | 86.7           | 95.9         |

SPEED TORQUE

|              | RPM  | TORQUE % FULL LOAD | TORQUE LB.-FT. | AMPERES |
|--------------|------|--------------------|----------------|---------|
| LOCKED ROTOR | 0    | 236                | 2430           | 2496    |
| PULL UP      | 1410 | 152                | 1571           | 1713    |
| BREAKDOWN    | 1730 | 218                | 2248           | 1147    |
| FULL LOAD    | 1782 | 100                | 1032           | 393     |

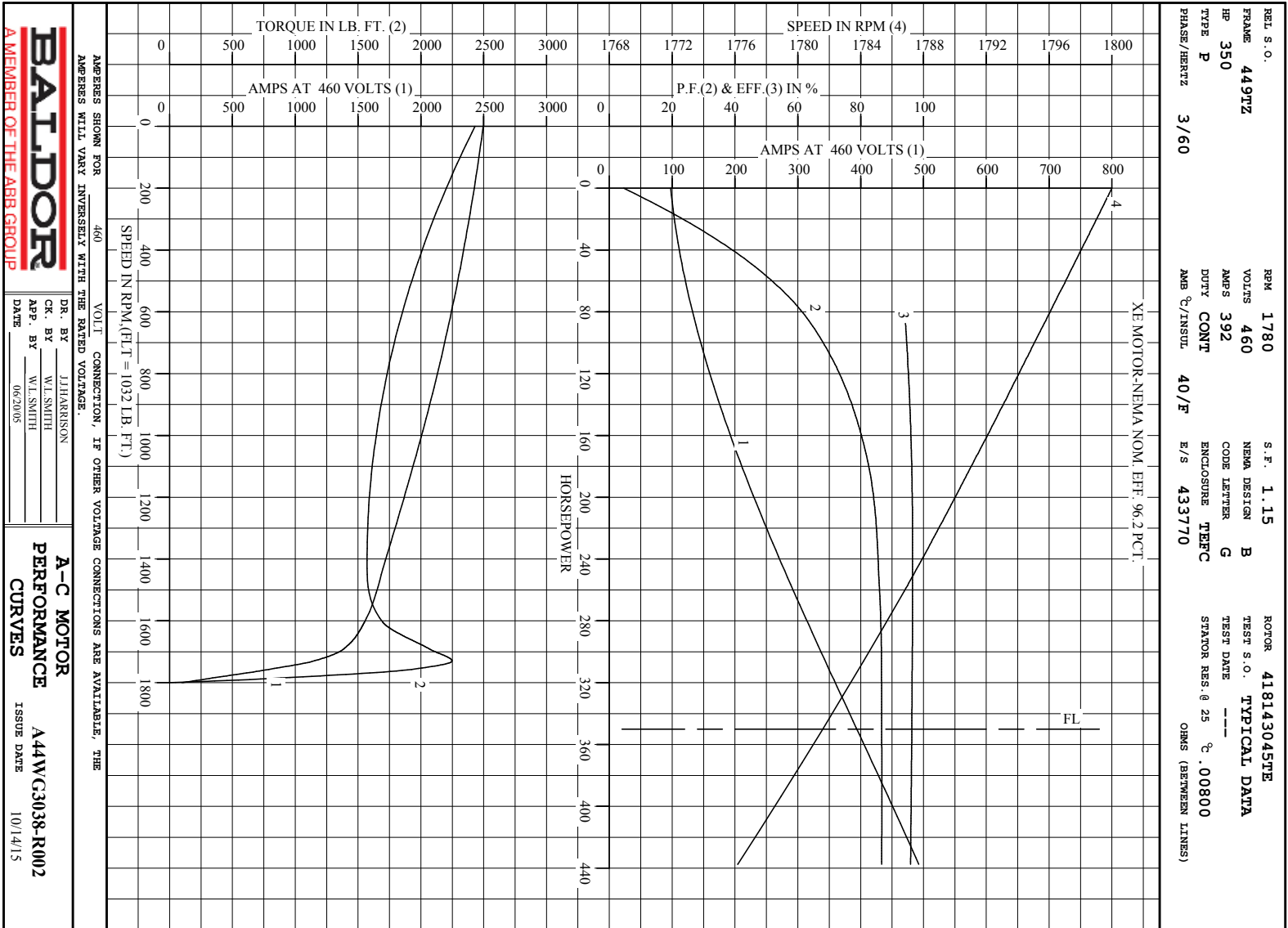
AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE

REMARKS: TYPICAL DATA  
XE MOTOR-NEMA NOM. EFF. 96.2 PCT.



DR. BY J. J. HARRISON  
CK. BY W. L. SMITH  
APP. BY W. L. SMITH  
DATE 06/20/05

A-C MOTOR PERFORMANCE DATA  
A44WG3038-R002  
ISSUE DATE 10/14/15



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

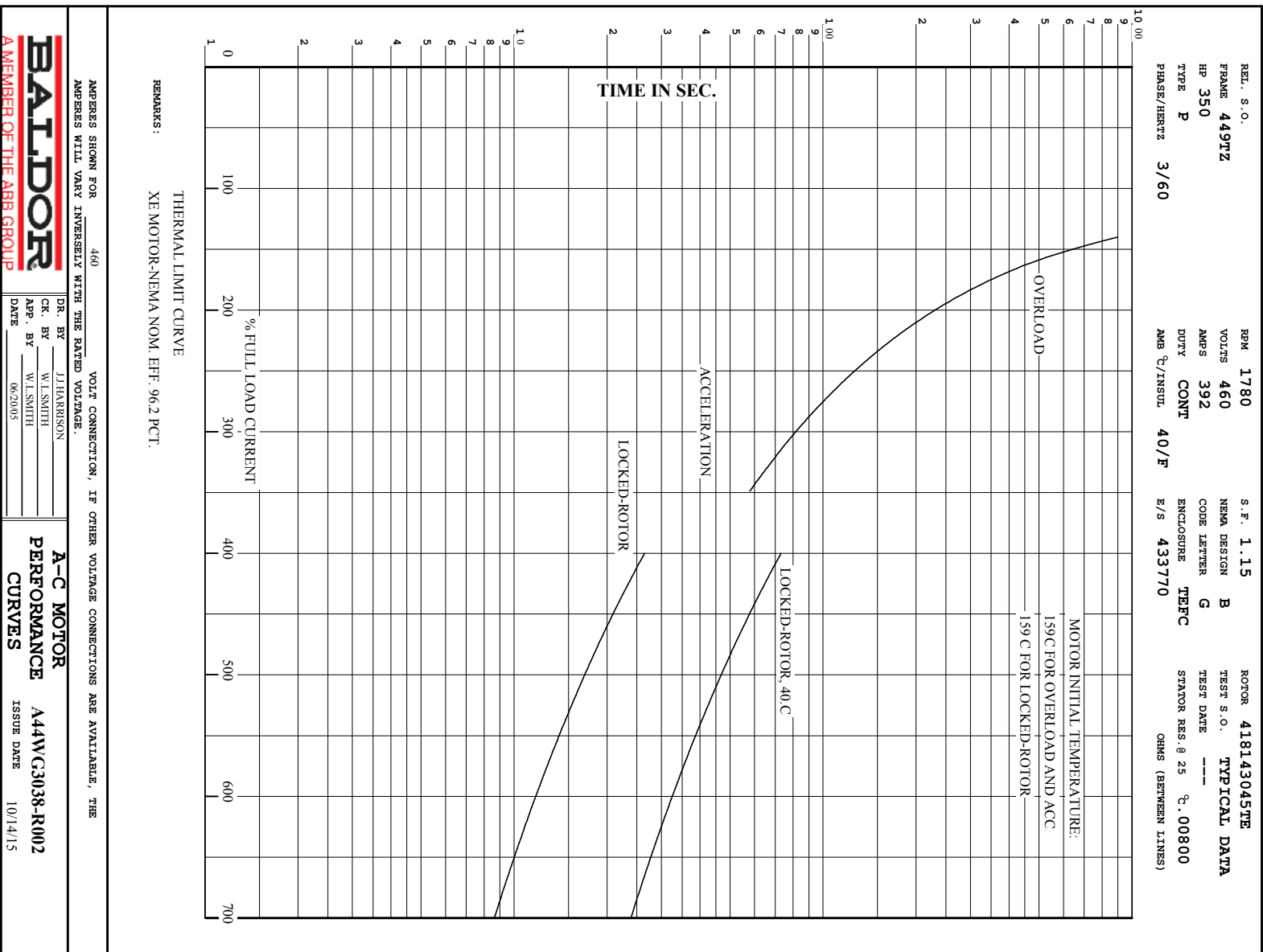
|                                  |                          |
|----------------------------------|--------------------------|
| <b>BALDOR</b>                    | <b>DR. BY</b> J.HARRISON |
| <b>A MEMBER OF THE ABB GROUP</b> | <b>CHK. BY</b> W.L.SMITH |
|                                  | <b>APP. BY</b> W.L.SMITH |
|                                  | <b>DATE</b> 06/20/05     |

**A-C MOTOR PERFORMANCE CURVES**

**A44WC3038-R002**

**ISSUE DATE** 10/14/15

Printed on 10/14/15 15:01 @ bengap01.baldor.com

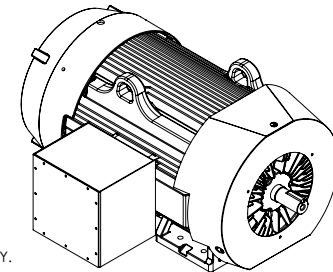
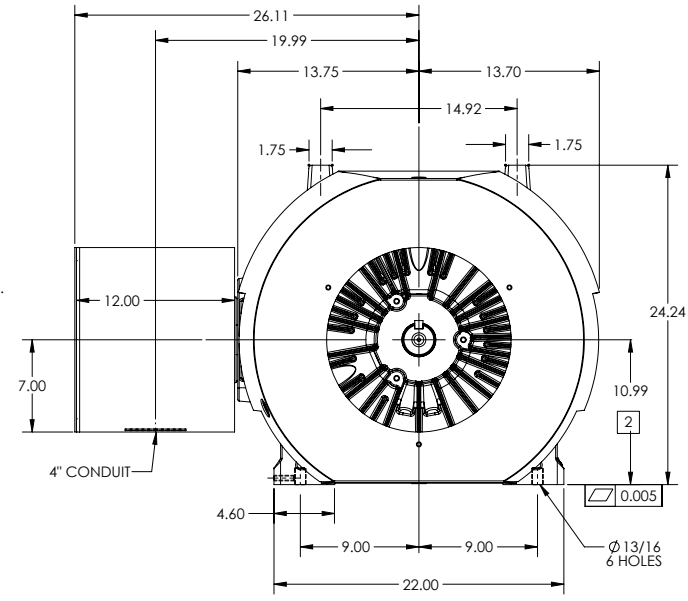
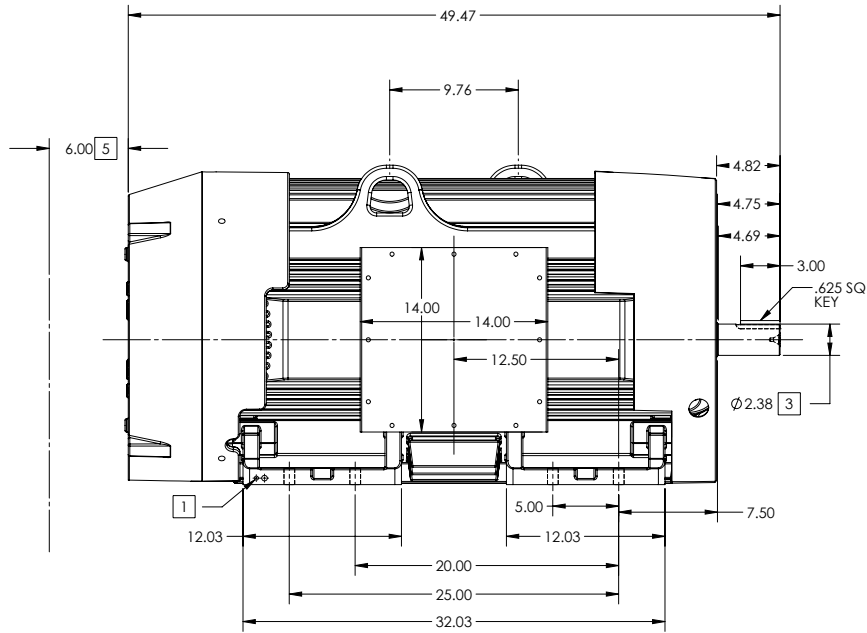


**DUTY MASTER ALTERNATING CURRENT MOTORS**  
SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED  
MOUNTING: FOOT

FRAME 449TS ABOVE NEMA RATINGS (3600 RPM MAX)  
INCLUDES 447TS FRAME MOUNTING HOLES

COOLING: FAN COOLED



**4** WEIGHT (LBS): 3080

DRIVE END AIR DEFLECTOR IS ONLY INCLUDED WHEN NECESSARY.

DIMENSIONS ARE IN INCHES

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

- 1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
- 2. VARIES +.00, -.06
- 3. VARIES +.000, -.001
- 4. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
- 5. OBSTRUCTION MUST NOT ENCR OACH ON AIR INLET

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2.  
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.  
MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF  
STANDARD SHAFT EXTENSION IS .003" T.I.R. TO 5 INCH DIA.

SHEET NUMBER  
**1 OF 2**  
617427-445

|                        |             |                              |                  |
|------------------------|-------------|------------------------------|------------------|
| REV. DESC: NEW DRAWING | VERSION: 00 | REVISED: 11-13-38 04/02/2015 | TDR: 00000918312 |
| MODEL NO. 617427-445   |             | BY: RAGEC                    |                  |

**BALDOR**

G449TS-447TS-FOOTED-SIDE-CENTER CONDUIT BOX-14X14X12

## DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

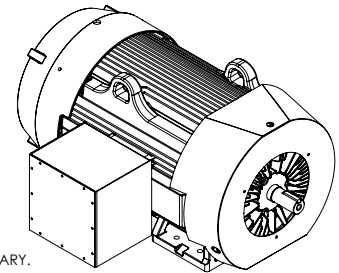
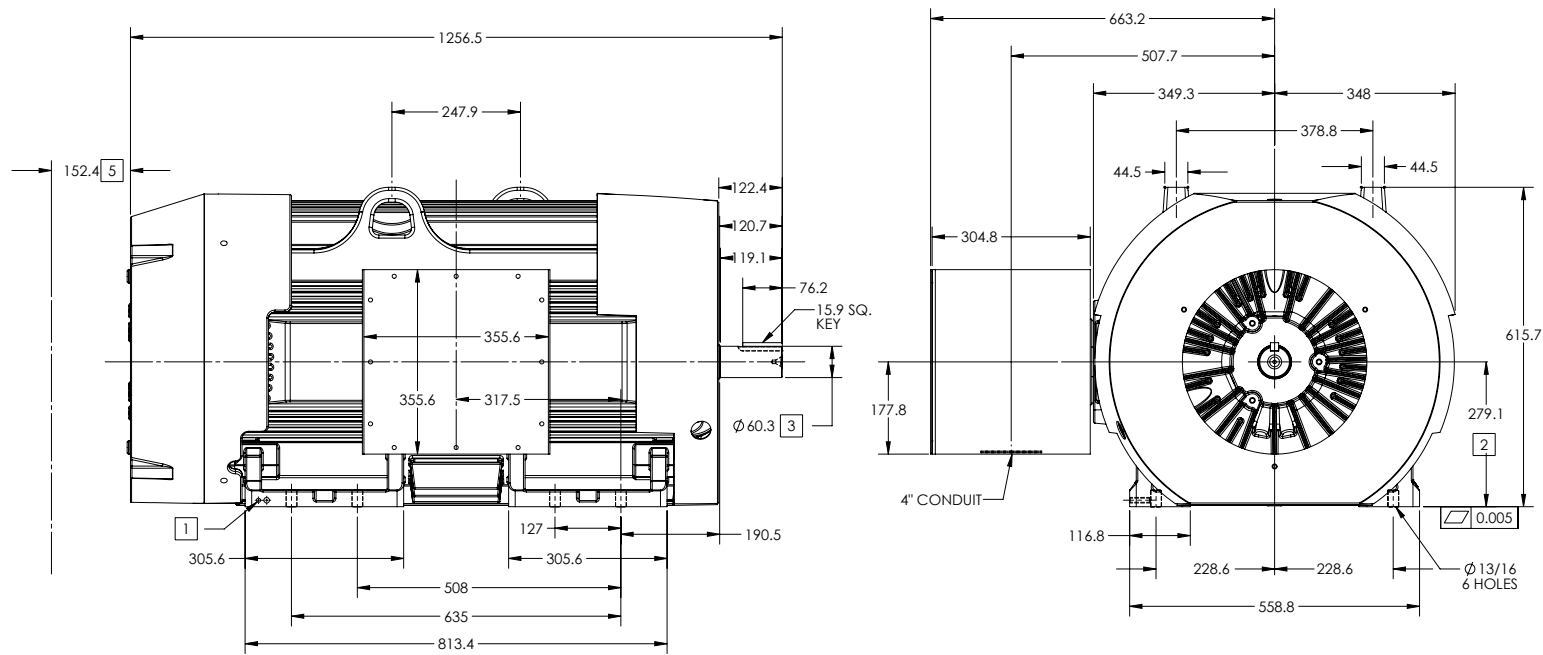
FRAME 449TS ABOVE NEMA RATINGS (3600 RPM MAX)

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 447TS FRAME MOUNTING HOLES

617427-445



**5** WEIGHT (KGS): 1400

DRIVE END AIR DEFLECTOR IS ONLY INCLUDED WHEN NECESSARY.

DIMENSIONS ARE IN MILLIMETERS

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +0. -1.5
3. VARIES +.00 - .03
4. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
5. OBSTRUCTION MUST NO ENCR OACH ON AIR INLET

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2.  
 IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.  
 MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF  
 STANDARD SHAFT EXTENSION IS .08 MM T.I.R. TO 127 MM DIA.

SHEET NUMBER  
**2 OF 2**

5HP-17427-119

|                        |             |                              |                  |
|------------------------|-------------|------------------------------|------------------|
| REV. DESC: NEW DRAWING | VERSION: 00 | REVISED: 11-13-38 04/02/2015 | TDR: 00000919312 |
| MODEL NO. 617427-445   | BY: RAGEC   |                              |                  |

**BALDOR**

G449TS-447TS-FOOTED-SIDE-CENTER CONDUIT BOX-14X14X12

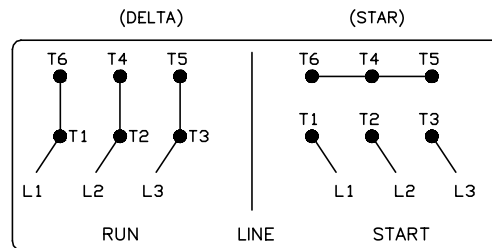
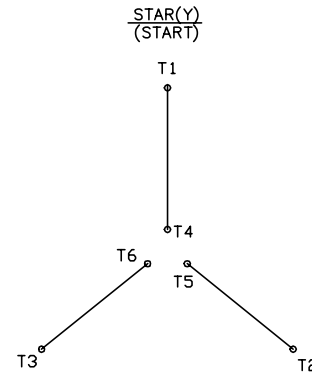
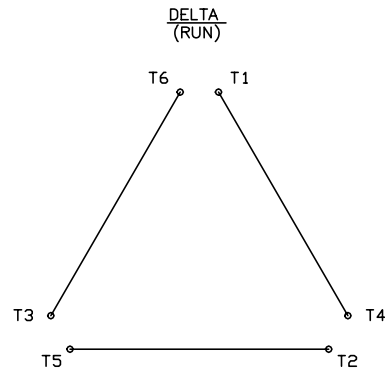
617427-445

416820-008

# A-C MOTOR CONNECTION DIAGRAM

STANDARD 6 LEAD

Y START - DELTA RUN



< N. P. 1767-DC >

416820-008

|  |                                |                   |
|--|--------------------------------|-------------------|
| 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: -                                   | Ⓢ □                            |                   |



**CONNECT DIAGRAM STD 6 LEAD Y START DELTA RUN**

SH 1 of 1

Marketing maintained PDF of MN408:

<http://www.baldor.com/support/Literature/Load.ashx/MN408?ManNumber=MN408>

Marketing maintained PDF of MN416:

<http://www.baldor.com/support/Literature/Load.ashx/MN416?ManNumber=MN416>