

# ABB BALDOR RELIANCE III

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## Customer information packet

### ECP4408TR-4

250HP, 1785RPM, 3PH, 60HZ, 449T, A44140M, TEFC

Class - CLI GP A,B,C,D

Division - Division II

**Specifications**

|                               |                             |
|-------------------------------|-----------------------------|
| Enclosure                     | TEFC                        |
| Frame                         | 449T                        |
| Frame Material                | Iron                        |
| Frequency                     | 60.00 Hz                    |
| Haz Area Class and Group      | CLI GP A,B,C,D              |
| Haz Area Division             | Division II                 |
| Motor Letter Type             | Three Phase                 |
| Output @ Frequency            | 250.000 HP @ 60 HZ          |
| Phase                         | 3                           |
| Synchronous Speed @ Frequency | 1800 RPM @ 60 HZ            |
| Voltage @ Frequency           | 460.0 V @ 60 HZ             |
| Agency Approvals              | CCSAUSEEV                   |
| Ambient Temperature           | 40 °C                       |
| Auxiliary Box                 | NO AUXILLARY BOX            |
| Base Indicator                | Rigid                       |
| Bearing Grease Type           | Mobil SHC 220 (Athens Only) |
| Constant Torque Speed Range   | 30-60                       |
| Current @ Voltage             | 276.000 A @ 460.0 V         |
| Design Code                   | B                           |
| Drip Cover                    | No Drip Cover               |
| Duty Rating                   | CONT                        |
| Efficiency @ 100% Load        | 96.2 %                      |
| Feedback Device               | NO FEEDBACK                 |
| Haz Area Temp Code            | T3                          |
| Heater Indicator              | No Heater                   |
| High Voltage Full Load Amps   | 276.0 a                     |
| Insulation Class              | F                           |
| Inverter Code                 | Inverter Ready              |
| KVA Code                      | G                           |
| Lifting Lugs                  | No Lifting Lugs             |
| Motor Lead Quantity/Wire Size | 6 @ 1/0 AWG                 |
| Motor Standards               | Other                       |

**Part Detail**

|              |                      |
|--------------|----------------------|
| Revision     | R                    |
| Type         | AC                   |
| Mech. spec.  |                      |
| Base         |                      |
| Status       | PRD/A                |
| Elec. spec.  | A44WG5150            |
| Layout       | 617427-003           |
| Eff. date    | 10-24-2024           |
| CD Diagram   | 416820-036           |
| Poles        | 04                   |
| Leads        | 3#1/0 (02 per group) |
| Proprietary  | False                |
| Created date | 08-15-2012           |

|                                 |                    |
|---------------------------------|--------------------|
| <b>Motor Type</b>               | A44144M            |
| <b>Mounting Arrangement</b>     | F1                 |
| <b>Number of Poles</b>          | 4                  |
| <b>Overall Length</b>           | 53.24 IN           |
| <b>Power Factor</b>             | 88                 |
| <b>Pulley End Bearing Type</b>  | Roller             |
| <b>Pulley Face Code</b>         | Standard           |
| <b>Service Factor</b>           | 1.15               |
| <b>Shaft Diameter</b>           | 3.375 IN           |
| <b>Shaft Ground Indicator</b>   | No Shaft Grounding |
| <b>Shaft Rotation</b>           | Reversible         |
| <b>Shaft Slinger Indicator</b>  | Shaft Slinger      |
| <b>Speed</b>                    | 1785 rpm           |
| <b>Speed Code</b>               | Single Speed       |
| <b>Starting Method</b>          | Direct on line     |
| <b>Thermal Device - Bearing</b> | None               |
| <b>Thermal Device - Winding</b> | None               |

**Nameplate**

| NP3238             |             |               |                 |              |              |                       |      |                     |      |        |      |             |   |  |  |
|--------------------|-------------|---------------|-----------------|--------------|--------------|-----------------------|------|---------------------|------|--------|------|-------------|---|--|--|
| CAT NO             | ECP4408TR-4 |               |                 |              | SPEC NO.     | P44G3937              |      |                     |      |        |      |             |   |  |  |
| HP                 | 250         | AMPS          | 276             |              |              | VOLTS                 | 460  |                     |      | DESIGN | B    |             |   |  |  |
| FRAME              | 449T        | RPM           | 1785            | HZ           | 60           | AMB                   | 40   | SF                  | 1.15 |        |      |             |   |  |  |
| D.E. BRG.DATA      | NU222       |               | O.D.E. BRG.DATA |              |              | 6318                  |      | PH                  | 3    | DUTY   | CONT | INSUL.CLASS | F |  |  |
| D.E. BRG.          | 110RU02M30X |               |                 | TYPE         | P            | ENCL                  | TEFC | CODE                | G    |        |      |             |   |  |  |
| O.D.E. BRG.        | 90BC03J30X  |               |                 | POWER FACTOR |              |                       | 88   | NEMA NOM EFFICIENCY |      |        | 96.2 |             |   |  |  |
| 3/4 LOAD EFF.      | 96.5        | MAX CORR KVAR |                 |              | 39           | GUARANTEED EFFICIENCY |      |                     | 95.4 |        |      |             |   |  |  |
| TEMP CODE          | T3          | TEMP =        | 200             |              |              |                       |      |                     |      |        |      |             |   |  |  |
| CHP HZ             | 60-90       | CT HZ         | 30-60           | VT HZ        | 0-60         |                       |      |                     |      |        |      |             |   |  |  |
| INVERTER-TEMP-CODE | T3          |               |                 |              |              |                       |      |                     |      |        |      |             |   |  |  |
| SER.NO.            |             |               |                 |              | MOTOR WEIGHT |                       |      | 2995                |      |        |      |             |   |  |  |

| NP2496L               |  |
|-----------------------|--|
| MOBIL SHC -220 GREASE |  |
|                       |  |

**Parts List**

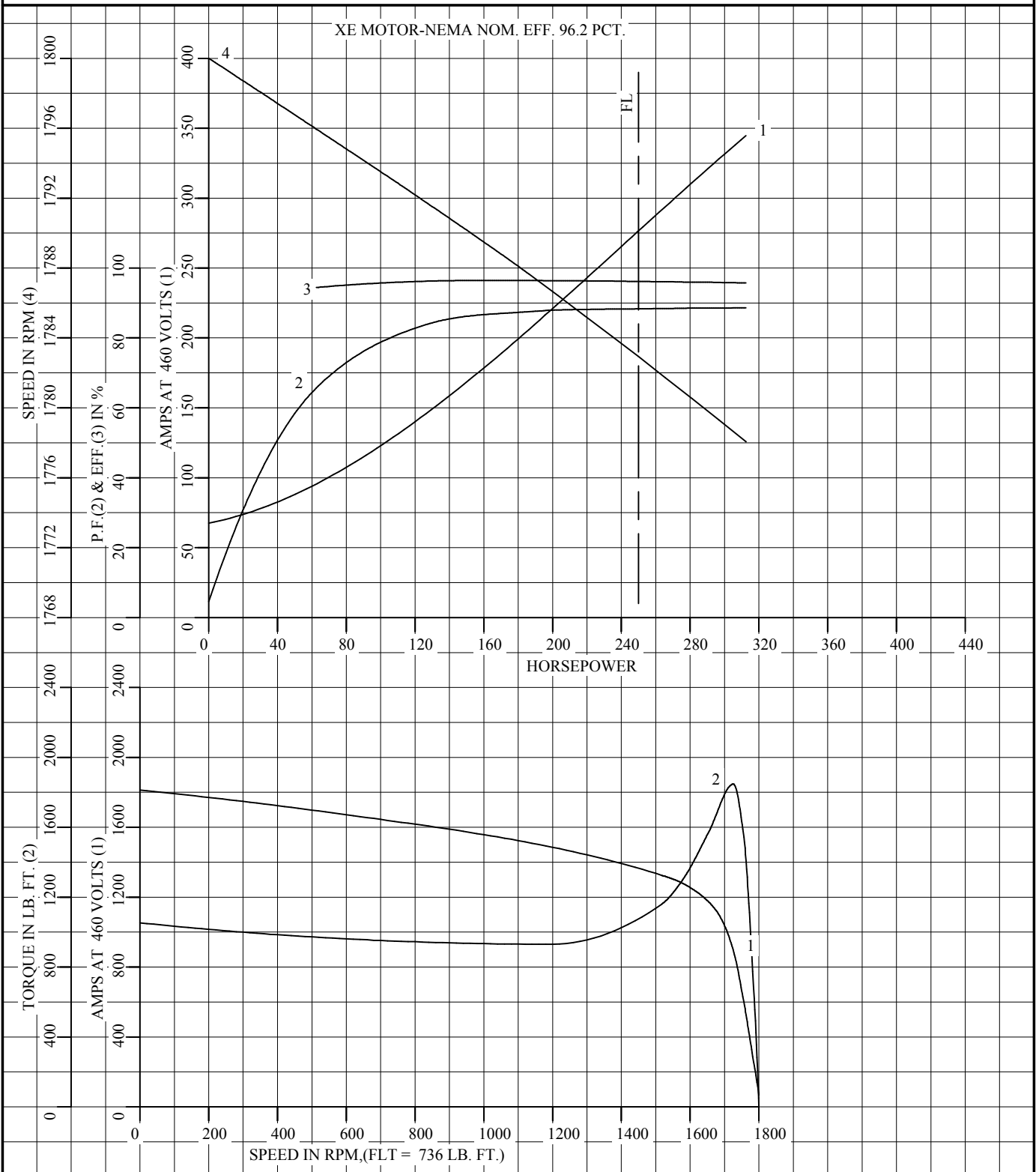
| Part number | Description                             | Quantity |
|-------------|-----------------------------------------|----------|
| SA249709    | SA P44G3937                             | 1.000 ea |
| RA236569    | RA P44G3937                             | 1.000 ea |
| NP3238      | SS CP XEX SEVERE DUTY MAIN NP,CURUS EEV | 1.000 ea |
| 000692000FF | N/P                                     | 1.000 ea |
| 000692000RT | N/P                                     | 1.000 ea |
| 000692000VD | LABEL WARNING                           | 1.000 ea |
| NP2496L     | MOTOR LUBE NAMEPLATE                    | 1.000 ea |
| 004824015AP | GREASE MOBILITH SHC 220                 | 1.156 lb |
| 032018008CK | HHCS 3/8-16X1L PLATED                   | 4.000 ea |
| 032018020FK | HHCS 3/4-10X2-1/2 PLTD.                 | 4.000 ea |
| 032018030DK | HHCS 1/2-13X3-3/4 PLTD.                 | 3.000 ea |
| 032620016LA | SOCKET SET SCREW-449                    | 3.000 ea |
| 034017014AB | LCKW 3/8 STD. PLATED                    | 4.000 ea |
| 034180014DA | KEY 1/4X1/4X1-3/4 L                     | 1.000 ea |
| 034530064AB | P/NIP 1/8 X 8" L Pipe Nipple            | 1.000 ea |
| 034530064BB | P/NIP 1/4X8 PLATED                      | 1.000 ea |
| 034631002AB | BUSH 1/4 TO 1/8 PLTD.                   | 1.000 ea |
| 035000001G  | GREASE RELIEF FITTING, ALEMITE 317400   | 1.000 ea |
| 034690005AB | PPLG 3/4 PLATED                         | 2.000 ea |
| 078548001R  | FAN KB 234/150 (84) 400                 | 1.000 ea |
| 083199082RA | G28 SHORT FAN COVER W/BAFFLE ASSEMBLY   | 1.000 ea |
| 089490099A  | G28 BRKT 089490098WCA KB                | 1.000 ea |
| 415045002A  | SLGR                                    | 1.000 ea |
| 415072001B  | CLAMP                                   | 1.000 ea |
| 415096002A  | CPLG 1/8 HEX TYPE                       | 1.000 ea |
| 418151014G  | RETAIN RING                             | 1.000 ea |
| 702623022A  | G28 AIR DEFLECTOR DRIVE END -- PLASTIC  | 1.000 ea |
| 032018004BK | HHCS 5/16-18X1/2 PLATED                 | 3.000 ea |
| 032018006BK | HHCS 5/16-18X3/4 PLATED                 | 3.000 ea |
| 032018020FK | HHCS 3/4-10X2-1/2 PLTD.                 | 4.000 ea |
| 032018030DK | HHCS 1/2-13X3-3/4 PLTD.                 | 3.000 ea |

|              |                                        |          |
|--------------|----------------------------------------|----------|
| 034017013AB  | LCKW 5/16 STD. PLATED                  | 3.000 ea |
| 034530056AB  | 1/8 X 7 PP NIPPLE                      | 1.000 ea |
| 034530056BB  | P/NIP 1/4X7 SCHED 40                   | 1.000 ea |
| 034631002AB  | BUSH 1/4 TO 1/8 PLTD.                  | 1.000 ea |
| 035000001G   | GREASE RELIEF FITTING, ALEMITE 317400  | 1.000 ea |
| 089490101A   | G28 BRKT 089490100WCA                  | 1.000 ea |
| 415915007G   | GASK, LAC                              | 1.000 ft |
| 415045002D   | SLGR - 440 V1T45B                      | 1.000 ea |
| 415096002A   | CPLG 1/8 HEX TYPE                      | 1.000 ea |
| 418151014H   | RETAIN RING                            | 1.000 ea |
| 702623013A   | THERMAL BARRIER -- G28 -- BRACKET MTD  | 1.000 ea |
| 032018008BK  | HHCS 5/16-18X1L PLATED                 | 4.000 ea |
| 032018008DK  | HHCS 1/2-13X1 PLATED                   | 4.000 ea |
| 032018005DL  | 1/2-13 X 5/8 SILICON BRONZE HHCS       | 1.000 ea |
| 035000001A   | ALFTG 1/8" 1610-BL                     | 1.000 ea |
| 035000001A   | ALFTG 1/8" 1610-BL                     | 1.000 ea |
| 067053014A   | GASK 440                               | 1.000 ea |
| 076870000BA  | CONDUIT BOX - 440 - 1/2-13 GROUND      | 1.000 ea |
| 076871000A   | +CBOX CVR BLKT - 449                   | 1.000 ea |
| 406056007A   | GASKET, 440                            | 1.000 ea |
| 406099000A   | PLUG - FAN COVER 320-440               | 1.000 ea |
| 415000115H   | T/LUG #2AWG-4/0AWG                     | 1.000 ea |
| 418150003A   | GREASE FITTING CAP                     | 1.000 ea |
| 418150003A   | GREASE FITTING CAP                     | 1.000 ea |
| 033775004EA  | DRSCR #6-1/4 304 S.S.                  | 2.000 ea |
| 034180054KA  | 7/8 SQ X 6.75 KEY                      | 1.000 ea |
| MG1025N19    | WILKO 778.50 BLUE GREEN - 55 GAL DRUMS | 0.375 ga |
| 004824003CBY | WILKO PAINT 060.02 - ACTIVATOR         | 0.094 ga |
| L482401016   | SPRAY AC-29-7S                         | 0.019 ga |
| 421948051    | LABEL, MYLAR                           | 1.000 ea |
| PK5005A01    | WOODEN BASE 449, 60 X 41-1/2           | 1.000 ea |
| 000613006PU  | N/P (RELEASE QTY 10,000) UL CSA LABEL  | 1.000 ea |
| LB1449       | DIV-2/NEC WARNING LABEL                | 1.000 ea |
| 412118006A   | DRAIN                                  | 2.000 ea |

|                                                                                                                                               |             |                      |                       |                                                                     |                 |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------|-----------------------|---------------------------------------------------------------------|-----------------|-------|
| REL.<br>S.O.                                                                                                                                  | FRAME       | HP                   | TYPE                  | PHASE/<br>HERTZ                                                     | RPM             | VOLTS |
|                                                                                                                                               | 449T        | 250                  | P                     | 3/60                                                                | 1785            | 460   |
| AMPS                                                                                                                                          | DUTY        | AMB °C/<br>INSUL.    | S.F.                  | NEMA<br>DESIGN                                                      | CODE<br>LETTER  | ENCL. |
| 276                                                                                                                                           | CONT        | 40/F                 | 1.15                  | B                                                                   | G               | TEFC  |
| E/S                                                                                                                                           | ROTOR       | TEST<br>S.O.         | TEST<br>DATE          | STATOR RES. @25 °C<br>OHMS (BETWEEN LINES)                          |                 |       |
| 833428                                                                                                                                        | 418143052LE | ---                  | ---                   | .0128                                                               |                 |       |
| PERFORMANCE                                                                                                                                   |             |                      |                       |                                                                     |                 |       |
| LOAD                                                                                                                                          | HP          | AMPERES              | RPM                   | %<br>POWER FACTOR                                                   | %<br>EFFICIENCY |       |
| NO LOAD                                                                                                                                       | 0           | 67.9                 | 1800                  | 4.53                                                                | 0               |       |
| 1/4                                                                                                                                           | 62.6        | 94.4                 | 1796                  | 65.7                                                                | 94.4            |       |
| 2/4                                                                                                                                           | 125         | 145                  | 1792                  | 83.6                                                                | 96.2            |       |
| 3/4                                                                                                                                           | 187         | 208                  | 1788                  | 87.6                                                                | 96.4            |       |
| 4/4                                                                                                                                           | 250         | 276                  | 1783                  | 88.3                                                                | 96.2            |       |
| 5/4                                                                                                                                           | 313         | 345                  | 1778                  | 88.6                                                                | 95.7            |       |
|                                                                                                                                               |             |                      |                       |                                                                     |                 |       |
| SPEED TORQUE                                                                                                                                  |             |                      |                       |                                                                     |                 |       |
|                                                                                                                                               |             | RPM                  | TORQUE<br>% FULL LOAD | TORQUE<br>LB.-FT.                                                   | AMPERES         |       |
| LOCKED ROTOR                                                                                                                                  |             | 0                    | 143                   | 1053                                                                | 1813            |       |
| PULL UP                                                                                                                                       |             | 1200                 | 126                   | 931                                                                 | 1486            |       |
| BREAKDOWN                                                                                                                                     |             | 1726                 | 251                   | 1847                                                                | 893             |       |
| FULL LOAD                                                                                                                                     |             | 1783                 | 100                   | 736                                                                 | 276             |       |
| AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE<br>AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE |             |                      |                       |                                                                     |                 |       |
| REMARKS: TYPICAL DATA<br>XE MOTOR-NEMA NOM. EFF. 96.2 PCT.                                                                                    |             |                      |                       |                                                                     |                 |       |
|                                                            |             | DR. BY J. P. TSAO    |                       | A-C MOTOR<br>PERFORMANCE DATA A44WG5150-R001<br>ISSUE DATE 04/23/21 |                 |       |
|                                                                                                                                               |             | CK. BY C. E. JAMISON |                       |                                                                     |                 |       |
|                                                                                                                                               |             | APP. BY W. L. SMITH  |                       |                                                                     |                 |       |
|                                                                                                                                               |             | DATE 11/20/14        |                       |                                                                     |                 |       |
|                                                                                                                                               |             |                      |                       |                                                                     | Page 8 of 8     |       |



|                         |                          |                       |                                  |
|-------------------------|--------------------------|-----------------------|----------------------------------|
| REL S.O.                | RPM <b>1785</b>          | S.F. <b>1.15</b>      | ROTOR <b>418143052LE</b>         |
| FRAME <b>449T</b>       | VOLTS <b>460</b>         | NEMA DESIGN <b>B</b>  | TEST S.O. <b>TYPICAL DATA</b>    |
| HP <b>250</b>           | AMPS <b>276</b>          | CODE LETTER <b>G</b>  | TEST DATE <b>---</b>             |
| TYPE <b>P</b>           | DUTY <b>CONT</b>         | ENCLOSURE <b>TEFC</b> | STATOR RES. @ 25 °C <b>.0128</b> |
| PHASE/HERTZ <b>3/60</b> | AMB °C/INSUL <b>40/F</b> | E/S <b>833428</b>     | 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. P. TSAO  
CK. BY C. E. JAMISON  
APP. BY W. L. SMITH  
DATE 11/20/14

**A-C MOTOR  
PERFORMANCE  
CURVES**

A44WG5150-R001

ISSUE DATE 04/23/21 Page 9 of 13

REL. S.O.

RPM **1785**

S.F. **1.15**

ROTOR **418143052LE**

FRAME **449T**

VOLTS **460**

NEMA DESIGN **B**

TEST S.O. **TYPICAL DATA**

HP **250**

AMPS **276**

CODE LETTER **G**

TEST DATE **---**

TYPE **P**

DUTY **CONT**

ENCLOSURE **TEFC**

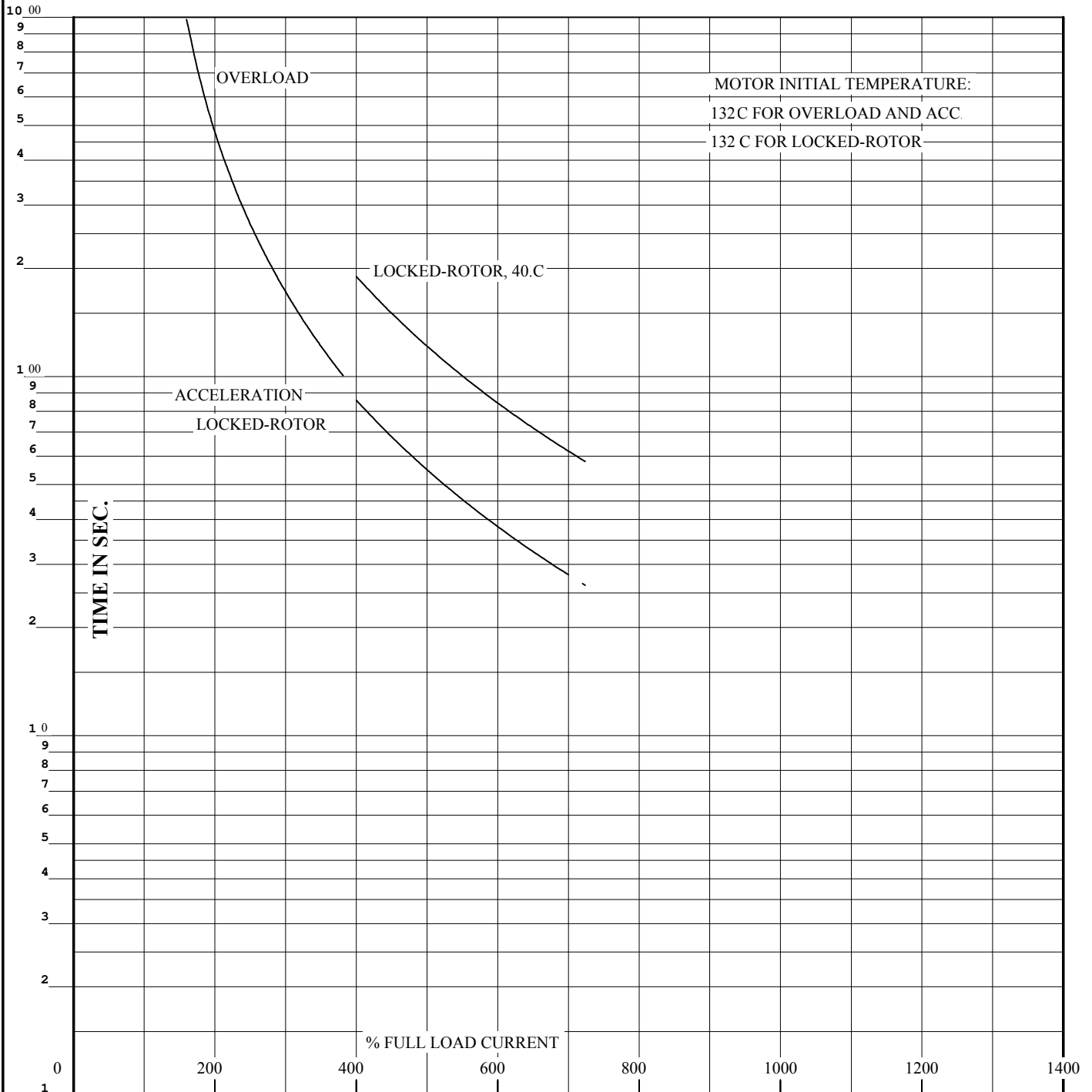
STATOR RES. @ 25 °C **.0128**

PHASE/HERTZ **3/60**

AMB °C/INSUL **40/F**

E/S **833428**

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS:

XE MOTOR-NEMA NOM. EFF. 96.2 PCT.

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.P. TSAO  
CK. BY C. E. JAMISON  
APP. BY W.L. SMITH  
DATE 11/20/14
**A-C MOTOR  
PERFORMANCE  
CURVES**
**A44WG5150-R001**

ISSUE DATE 04/23/21 Page 10 of 13

## DUTY MASTER ALTERNATING CURRENT MOTORS

### SQUIRREL-CAGE INDUCTION

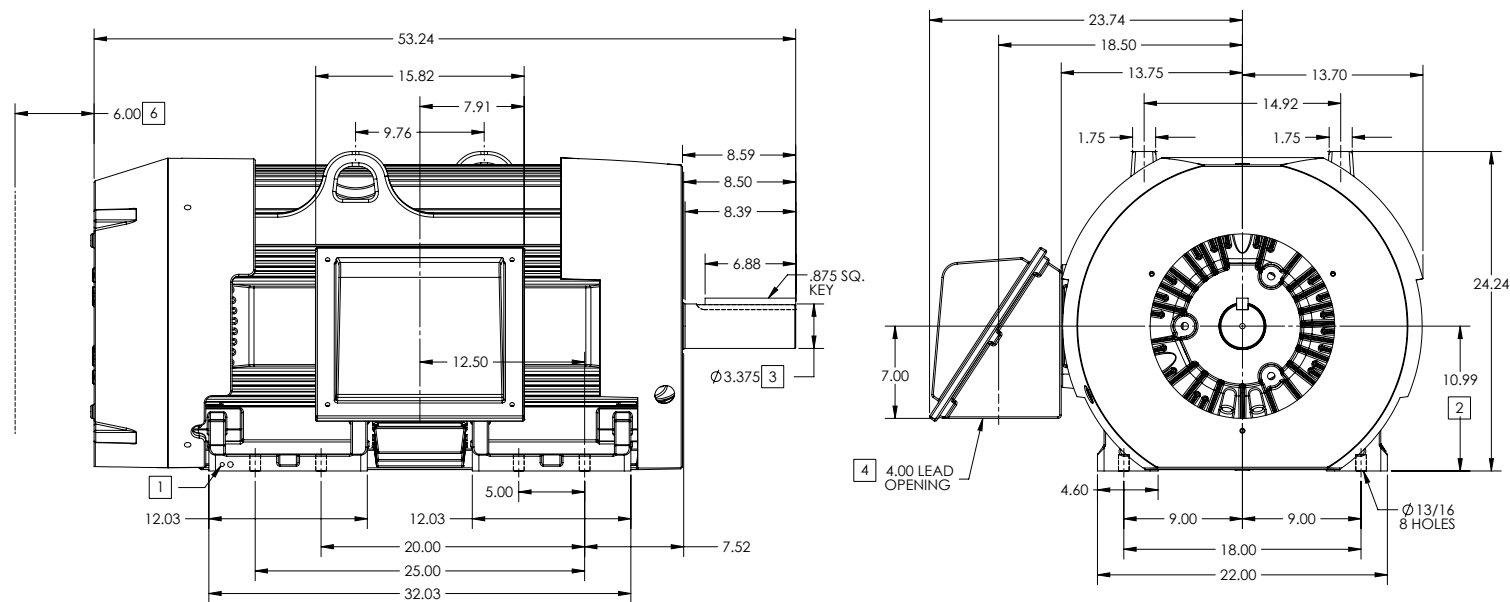
ENCLOSURE: TOTALLY ENCLOSED

FRAME 449T ABOVE NEMA RATINGS (1800 RPM MAX)

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 447T FRAME MOUNTING HOLES



1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +.00,-.06
3. VARIES +.000,-.001
4. ON STANDARD MOTORS THIS IS CONDUIT SIZE. ON XT AND CORROSION PROOF MOTOR THIS IS PIPE TAP.
5. MOTOR WEIGHTS MAY VARY BY 1.5% DEPENDING ON RATING.
6. OBSTRUCTION MUST NO ENCROACH 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.

**[5] WEIGHT (LBS): 3080**

DRIVE END AIR DEFLECTOR IS ONLY INCLUDED WHEN NECESSARY.

DIMENSIONS ARE IN INCHES; SEE SHEET 2 FOR DIMENSIONS IN MILLIMETERS

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

 SHEET NUMBER  
1 OF 2

500P-LCP-119

|                        |             |                              |                   |
|------------------------|-------------|------------------------------|-------------------|
| REV. DESC: NEW DRAWING | VERSION: 02 | REVISED: 11/32/36 10/23/2017 | TDR: 000001048162 |
| MODEL NO. 617427-003   | BY: RAGRA   |                              |                   |

**BALDOR**

G449T/447T STD - FOOTED - SIDE/CENTER C/B

617427-003

# DUTY MASTER ALTERNATING CURRENT MOTORS

## SQUIRREL-CAGE INDUCTION

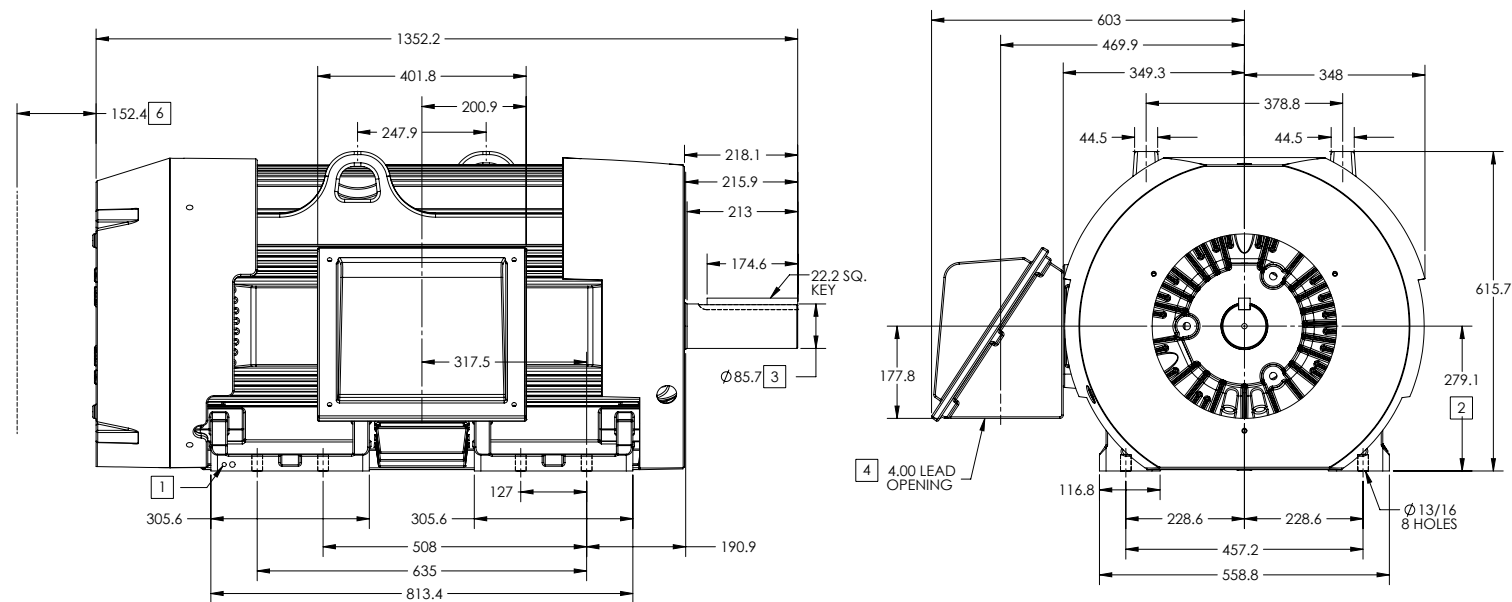
ENCLOSURE: TOTALLY ENCLOSED

FRAME 449T ABOVE NEMA RATINGS (1800 RPM MAX)

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 447T FRAME MOUNTING HOLES



1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +.00,-.06
3. VARIES +.000,-.001
4. ON STANDARD MOTORS THIS IS CONDUIT SIZE. ON XT AND CORROSION PROOF MOTOR THIS IS PIPE TAP.
5. MOTOR WEIGHTS MAY VARY BY 1.5% DEPENDING ON RATING.
6. OBSTRUCTION MUST NO ENCROACH 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.

**5 WEIGHT (KGS): 1400**

DRIVE END AIR DEFLECTOR IS ONLY INCLUDED WHEN NECESSARY.

DIMENSIONS ARE IN MILLIMETERS; SEE SHEET 1 FOR DIMENSIONS IN INCHES

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

 SHEET NUMBER  
2 OF 2

500P-LCP-119

|                        |           |             |                              |                   |
|------------------------|-----------|-------------|------------------------------|-------------------|
| REV. DESC. NEW DRAWING | REV. B    | VERSION: 02 | REVISED: 11/32/36 10/23/2017 | TDR: 000001048162 |
| MODEL NO. 617427-003   | BY: RAGRA |             |                              |                   |

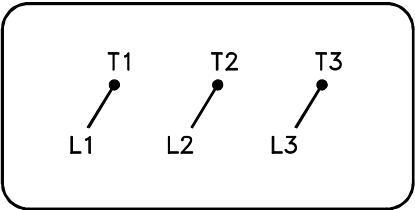
**BALDOR**

G449T-447T STD - FOOTED - SIDE/CENTER C/B

617427-003

416820-036

A-C MOTOR  
CONNECTION DIAGRAM  
STANDARD 3 LEAD CONNECTED



(N.P. 1575-BA)

|                                      |             |                                |
|--------------------------------------|-------------|--------------------------------|
| REV. DESC: LOADED TO BUS, C/R 335225 |             |                                |
| REV. LTR: -                          | VERSION: 00 | TDR: 000000538207              |
| FILE: \MGA\00000\682                 |             | REVISED: 11: 54: 06 04/30/2010 |
| MTL: -                               |             | BY: RAGRA                      |

**BALDOR**

CONN DIAG - STANDARD 3 LEAD  
SH 1 of 1

416820-036