ABB BALDOR RELIANCE

# Customer information packet

## ECP44402T-4

400HP, 3570RPM, 3PH, 60HZ, L449TS, A44208M, TE
Class - None
Division - Division II

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## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | L449TS |
| **Frame Material** | Iron |
| **Frequency** | 60.00 Hz |
| **Haz Area Class and Group** | None |
| **Haz Area Division** | Division II |
| **Motor Letter Type** | Three Phase |
| **Output @ Frequency** | 400.000 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 3600 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** | Polyrex EM (-20F +300F) |
| **Constant Torque Speed Range** | 30-60 |
| **Current @ Voltage** | 420.000 A @ 460.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 96.2 % |
| **Enclosure Modification** | Severe Duty Features |
| **Feedback Device** | NO FEEDBACK |
| **Frame Prefix** | L |
| **Haz Area Temp Code** | T2C |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 420.0 a |
| **Insulation Class** | F |
| **Inverter Code** | Not Inverter |
| **KVA Code** | G |
| **Motor Lead Quantity/Wire Size** | 12 @ 1/0 AWG |

## Part Detail

| | |
|---|---|
| **Revision** | H |
| **Type** | AC |
| **Mech. spec.** | |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | A44WG5211 |
| **Layout** | 617435-427 |
| **Eff. date** | 10-24-2024 |
| **CD Diagram** | 416820-036 |
| **Poles** | 02 |
| **Leads** | 3#1/0 (04 per group) |
| **Proprietary** | False |
| **Created date** | 05-17-2017 |

| | |
|---|---|
| **Motor Standards** | NEMA |
| **Motor Type** | A44208M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 2 |
| **Overall Length** | 56.72 IN |
| **Power Factor** | 92 |
| **Product Family** | General Industrial |
| **Pulley End Bearing Type** | Ball |
| **Service Factor** | 1.15 |
| **Shaft Diameter** | 2.375 IN |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | Shaft Slinger |
| **Speed** | 3570 rpm |
| **Speed Code** | Single Speed |
| **Starting Method** | Direct on line |
| **Thermal Device - Bearing** | None |
| **Thermal Device - Winding** | None |

**Nameplate**

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

| 000901002AAA |
|---|
| IP-55 CONSTRUCTION |

| NP3238 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CAT NO** | ECP44402T-4 | **SPEC NO.** | A44-7175-5211 | | | | | | | | | |
| **HP** | 400 | **AMPS** | 420 | **VOLTS** | 460 | **DESIGN** | B | | | | | |
| **FRAME** | L449TS | **RPM** | 3570 | **HZ** | 60 | **AMB** | 40 | **SF** | 1.15 | | | |
| **D.E. BRG.DATA** | 6313 | **O.D.E. BRG.DATA** | 6313 | **PH** | 3 | **DUTY** | CONT | **INSUL.CLASS** | F | | | |
| **D.E. BRG.** | 65BC03J30X | **TYPE** | P | **ENCL** | TEFC | **CODE** | G | | | | | |
| **O.D.E. BRG.** | 65BC03J30X | **POWER FACTOR** | 92 | **NEMA NOM EFFICIENCY** | 96.2 | | | | | | | |
| **3/4 LOAD EFF.** | 96.5 | **MAX CORR KVAR** | 25.0 | **GUARANTEED EFFICIENCY** | 95.4 | | | | | | | |
| **TEMP CODE** | T2C | **TEMP =** | 230 | | | | | | | | | |
| **CHP HZ** | 60-75 | **CT HZ** | 30-60 | **VT HZ** | 0-60 | | | | | | | |
| **INVERTER-TEMP-CODE** | T2C | | | | | | | | | | | |
| **SER.NO.** | | **MOTOR WEIGHT** | | | | | | | | | | |

**Parts List**

| Part number | Description | Quantity |
|---|---|---|
| SA338715 | SA A44-7175-5211 | 1.000 ea |
| RA327045 | RA A44-7175-5211 | 1.000 ea |
| 421948051 | 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 |
| 000901002AAA | N/P BLANK (RELEASE QTY 1,500) | 1.000 ea |
| LB1449 | DIV-2/NEC WARNING LABEL | 1.000 ea |
| NP3238 | SS CP XEX SEVERE DUTY MAIN NP,CURUS EEV | 1.000 ea |
| 089490097A | BRKT 089490102WCA | 1.000 ea |
| 415072001B | CLAMP | 1.000 ea |
| 083199082RA | G28 SHORT FAN COVER W/BAFFLE ASSEMBLY | 1.000 ea |
| 034180014DA | KEY 1/4X1/4X1-3/4 L | 1.000 ea |
| 078548001R | FAN KB 234/150 (84) 400 | 1.000 ea |
| 004824015A | GREASE POLYREX EM | 0.540 lb |
| 032018020FK | HHCS 3/4-10X2-1/2 PLTD. | 4.000 ea |
| 032018008CK | HHCS 3/8-16X1L PLATED | 4.000 ea |
| 032018020CK | HHCS 3/8-16X2-1/2 PLTD. | 3.000 ea |
| 415096002A | CPLG 1/8 HEX TYPE | 1.000 ea |
| 415045002E | SLGR | 1.000 ea |
| 410700004F | WSHR | 1.000 ea |
| 035000001G | GREASE RELIEF FITTING, ALEMITE 317400 | 1.000 ea |
| 034017014AB | LCKW 3/8 STD. PLATED | 4.000 ea |
| 034530072AB | P/NIP 1/8X9"L Threaded both ends | 1.000 ea |
| 034630002AB | CPLG 1/4" PLATED | 1.000 ea |
| 034690005AB | PPLG 3/4 PLATED | 2.000 ea |
| 034530072BB | PIPE NIPPLE,DE - 440-BS | 1.000 ea |
| 034600001AA | BUSH 1/4TO1/8 BLACK | 1.000 ea |
| 032620016LA | SOCKET SET SCREW-449 | 3.000 ea |
| 034630002AB | CPLG 1/4" PLATED | 1.000 ea |

| | | |
|---|---|---|
| 034530072BB | PIPE NIPPLE,DE - 440-BS | 1.000 ea |
| 702623012A | THERMAL BARRIER, G28 | 1.000 ea |
| 032018004BK | HHCS 5/16-18X1/2 PLATED | 3.000 ea |
| 034017013AB | LCKW 5/16 STD. PLATED | 3.000 ea |
| 034001013AB | FLTW BAFFLE | 3.000 ea |
| 034600001AA | BUSH 1/4TO1/8 BLACK | 1.000 ea |
| 702623022AB | G28 DE AIR SCOOP-HIGH IMPACT PLASTIC- | 1.000 ea |
| 032018006BK | HHCS 5/16-18X3/4 PLATED | 3.000 ea |
| 034017013AB | LCKW 5/16 STD. PLATED | 3.000 ea |
| 089490097A | BRKT 089490102WCA | 1.000 ea |
| 032018020FK | HHCS 3/4-10X2-1/2 PLTD. | 4.000 ea |
| 032018022CK | HHCS 3/8-16X2-3/4 PLTD | 3.000 ea |
| 415045002E | SLGR | 1.000 ea |
| 034530072AB | P/NIP 1/8X9"L Threaded both ends | 1.000 ea |
| 415096002A | CPLG 1/8 HEX TYPE | 1.000 ea |
| 035000001G | GREASE RELIEF FITTING, ALEMITE 317400 | 1.000 ea |
| 415915007K | GASK, 26" LAC | 1.000 ea |
| 406056008A | GASKET, TERBD 440 | 1.000 ea |
| 418150003A | GREASE FITTING CAP | 1.000 ea |
| 032018008DK | HHCS 1/2-13X1 PLATED | 4.000 ea |
| 702616012RE | CONDUIT BOX | 1.000 ea |
| 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 |
| MG1025N19 | WILKO 778.50 BLUE GREEN - 55 GAL DRUMS | 0.500 ga |
| 033775004EA | DRSCR #6-1/4 304 S.S. | 2.000 ea |
| 034180024HA | KEY 5/8X5/8X3 L | 1.000 ea |
| 604797032 | 447/449 WIDE SHIPPING SKID 70" X 55" | 1.000 ea |
| 032510026D | CARRIAGE BOLT - 440 | 2.000 ea |
| 034001016AB | WSHR .562ID 1.375OD .109 | 2.000 ea |
| 034001014AB | FLAT WASHER 3/8"PLATED | 2.000 ea |
| 033300014AC | HEX NUT, SHIPPING - 400 | 2.000 ea |
| 604799003C | PLASTIC BAG 42X32X46 | 1.000 ea |

| | | |
|---|---|---|
| 412118006A | DRAIN | 2.000 ea |

| S/O | FRAME | HP | TYPE | PHASE/ HERTZ | RPM | VOLTS |
|---|---|---|---|---|---|---|
| | L449TS | 400 | P | 3/60 | 3570 | 460 |

| AMPS | DUTY | AMB °C/ INSUL | S.F. | NEMA DESIGN | CODE LETTER | ENCLOSURE |
|---|---|---|---|---|---|---|
| 420 | CONT | 40/F | 1.15 | B | G | TEFC |

| E/S | ROTOR | TEST S.O. | TEST DATE | STATOR RES. @25 °C OHMS (BETWEEN LINES) |
|---|---|---|---|---|
| - | 418143-016-MEQ | --- | --- | .00612 |

**PERFORMANCE**

| LOAD | HP | AMPERES | RPM | % POWER FACTOR | % EFFICIENCY |
|---|---|---|---|---|---|
| NO LOAD | 0 | 78.9 | 3600 | 6.92 | 0 |
| 1/4 | 100 | 127 | 3593 | 78.6 | 94.0 |
| 2/4 | 200 | 214 | 3586 | 91.1 | 96.1 |
| 3/4 | 300 | 313 | 3579 | 93.0 | 96.5 |
| 4/4 | 400 | 419 | 3571 | 92.6 | 96.4 |
| 5/4 | 500 | 529 | 3563 | 92.1 | 96.1 |
| | | | | | |

**SPEED TORQUE**

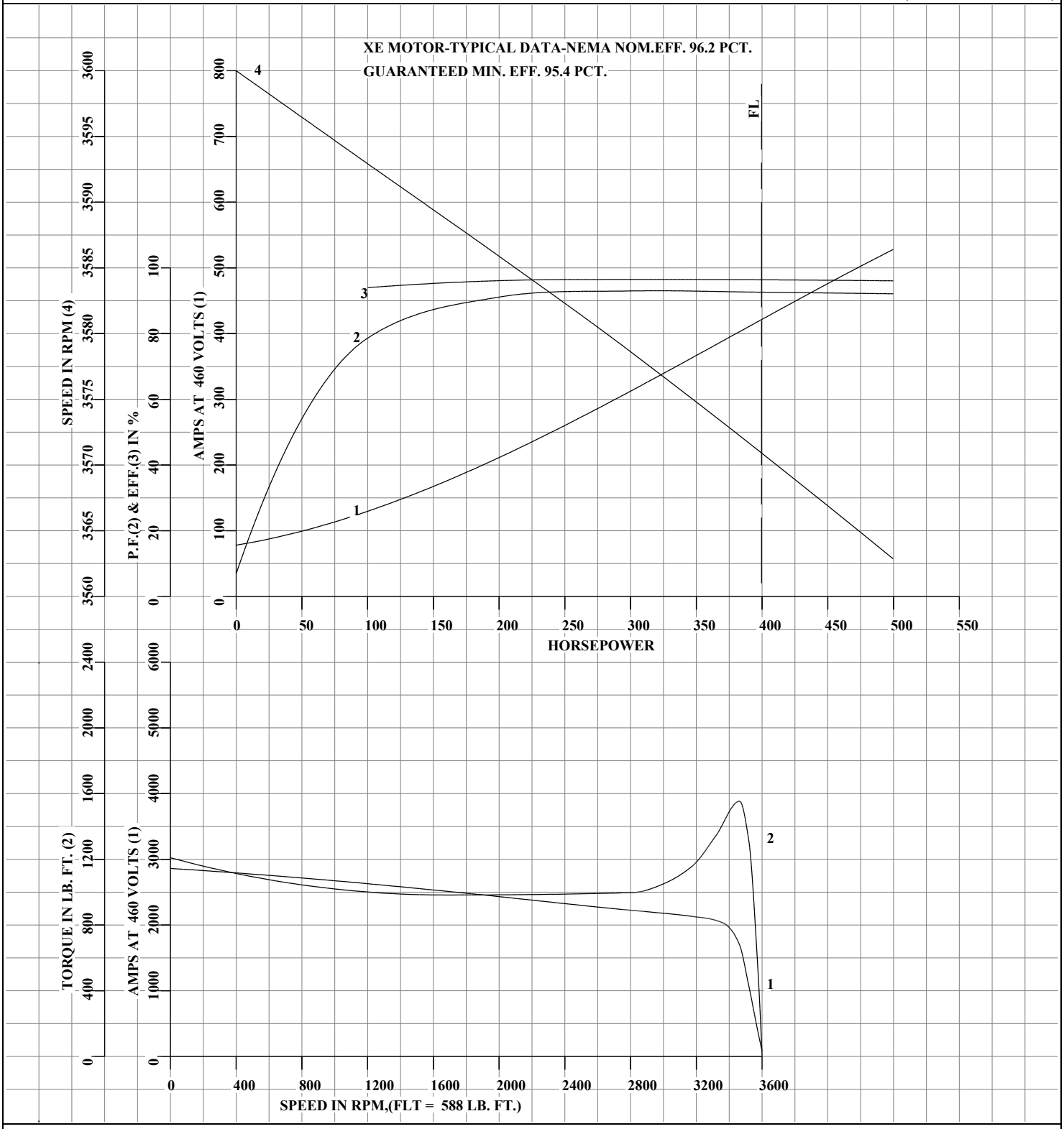
| | RPM | TORQUE % FULL LOAD | TORQUE LB.-FT. | AMPERES |
|---|---|---|---|---|
| LOCKED ROTOR | 0 | 206 | 1210 | 2861 |
| PULL UP | 1670 | 167 | 983 | 2517 |
| BREAKDOWN | 3463 | 264 | 1554 | 1697 |
| FULL LOAD | 3571 | 100 | 588 | 419 |

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

**TYPICAL DATA**
**XE MOTOR-TYPICAL DATA-NEMA NOM.EFF. 96.2 PCT.**
**GUARANTEED MIN. EFF. 95.4 PCT.**

| | | | |
|---|---|---|---|
| ABB | DRAWN BY: J. P. TSAO<br>CHECKED BY: W.L. SMITH<br>APPROVED BY: W.L. SMITH<br>DATE: 05/15/17 | AC MOTOR PERFORMANCE DATA | A44WG5211-R002<br>DATE ISSUED 10/14/24 |

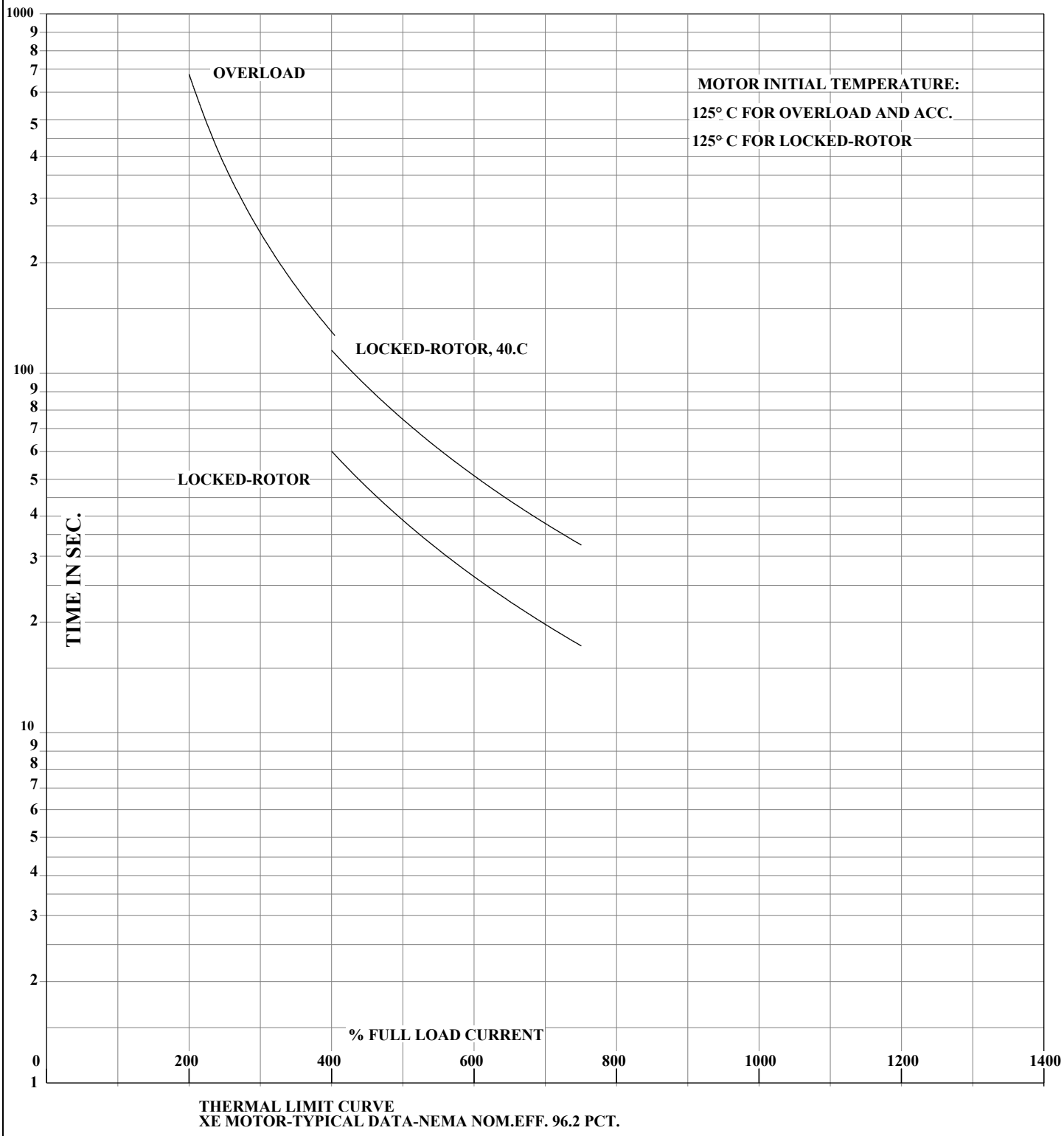
| | | | |
|---|---|---|---|
| FRAME L449TS | RPM 3570 | S.F. 1.15 | ROTOR 418143-016-MEQ |
| HP 400 | VOLTS 460 | NEMA DESIGN B | TEST S.O. TYPICAL DATA |
| TYPE P | AMPS 420 | CODE LETTER G | TEST DATE --- |
| PHASE / HERTZ 3/60 | DUTY CONT | ENCLOSURE TEFC | STATOR RES. @ 25°C .00612 |
| | AMB °C / INSUL 40/F | E/S - | OHMS (BETWEEN LINES) |




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

| | | | |
|---|---|---|---|
| ABB | DRAWN BY: J. P. TSAO<br>CHECKED BY: W.L. SMITH<br>APPROVED BY: W.L. SMITH<br>DATE: 05/15/17 | AC MOTOR PERFORMANCE DATA | A44WG5211-R002<br>ISSUE DATE 10/14/24 |

| | | | |
|---|---|---|---|
| FRAME L449TS | RPM 3570 | S.F. 1.15 | ROTOR 418143-016-MEQ |
| HP 400 | VOLTS 460 | NEMA DESIGN B | TEST S.O. TYPICAL DATA |
| TYPE P | AMPS 420 | CODE LETTER G | TEST DATE --- |
| PHASE / HERTZ 3/60 | DUTY CONT | ENCLOSURE TEFC | STATOR RES. @ 25°C .00612 |
| | AMB °C / INSUL 40/F | E/S - | OHMS (BETWEEN LINES) |




THERMAL LIMIT CURVE
XE MOTOR-TYPICAL DATA-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.

| | | | |
|---|---|---|---|
| ABB | DRAWN BY: J. P. TSAO<br>CHECKED BY: W.L. SMITH<br>APPROVED BY: W.L. SMITH<br>DATE: 05/15/17 | AC MOTOR PERFORMANCE DATA | A44WG5211-R002<br>ISSUE DATE 10/14/24 |

# DUTY MASTER ALTERNATING CURRENT MOTORS

617435-427

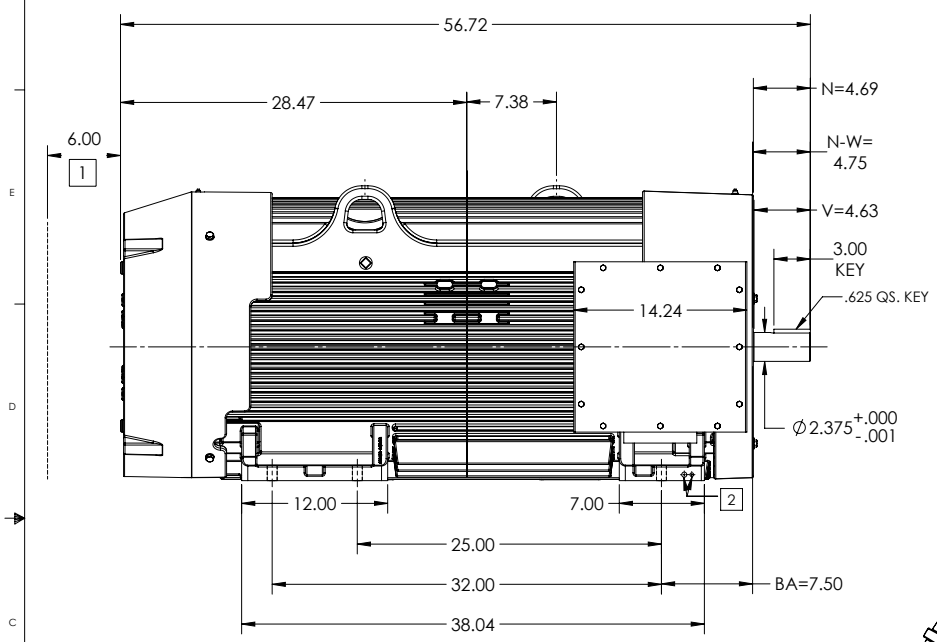
ENCLOSURE: TOTALLY ENCLOSED

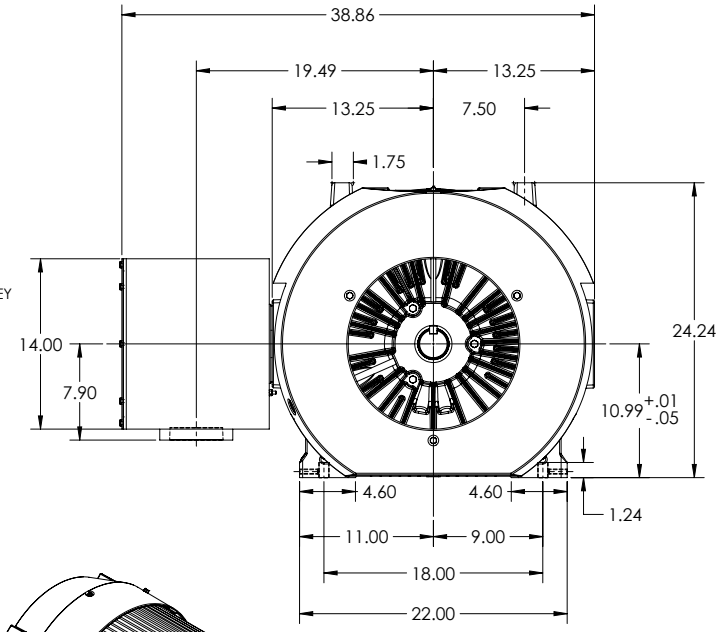
SQUIRREL-CAGE INDUCTION

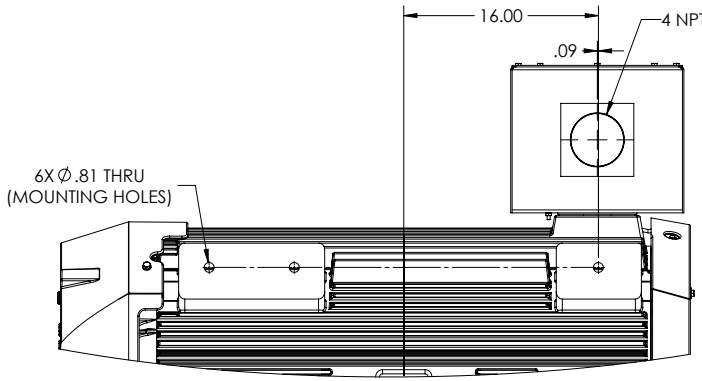
MOUNTING: FOOT, F-1

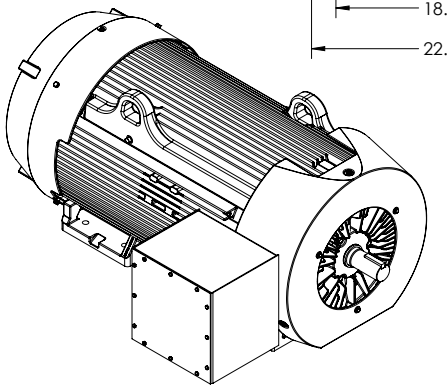
GL449TS/449TS FRAME MOUNTING

COOLING: FAN COOLED



1 OBSTRUCTION MUST NO ENCROACH ON AIR INLET.

2 (1) 3/8-16 & (1) 1/2-13 GROUNDING TAPS (BOTH SIDES).

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.

DRIVE END AIR DEFLECTOR IS ONLY INCLUDED WHEN SPECIFIED

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

SHEET NUMBER 1 OF 1

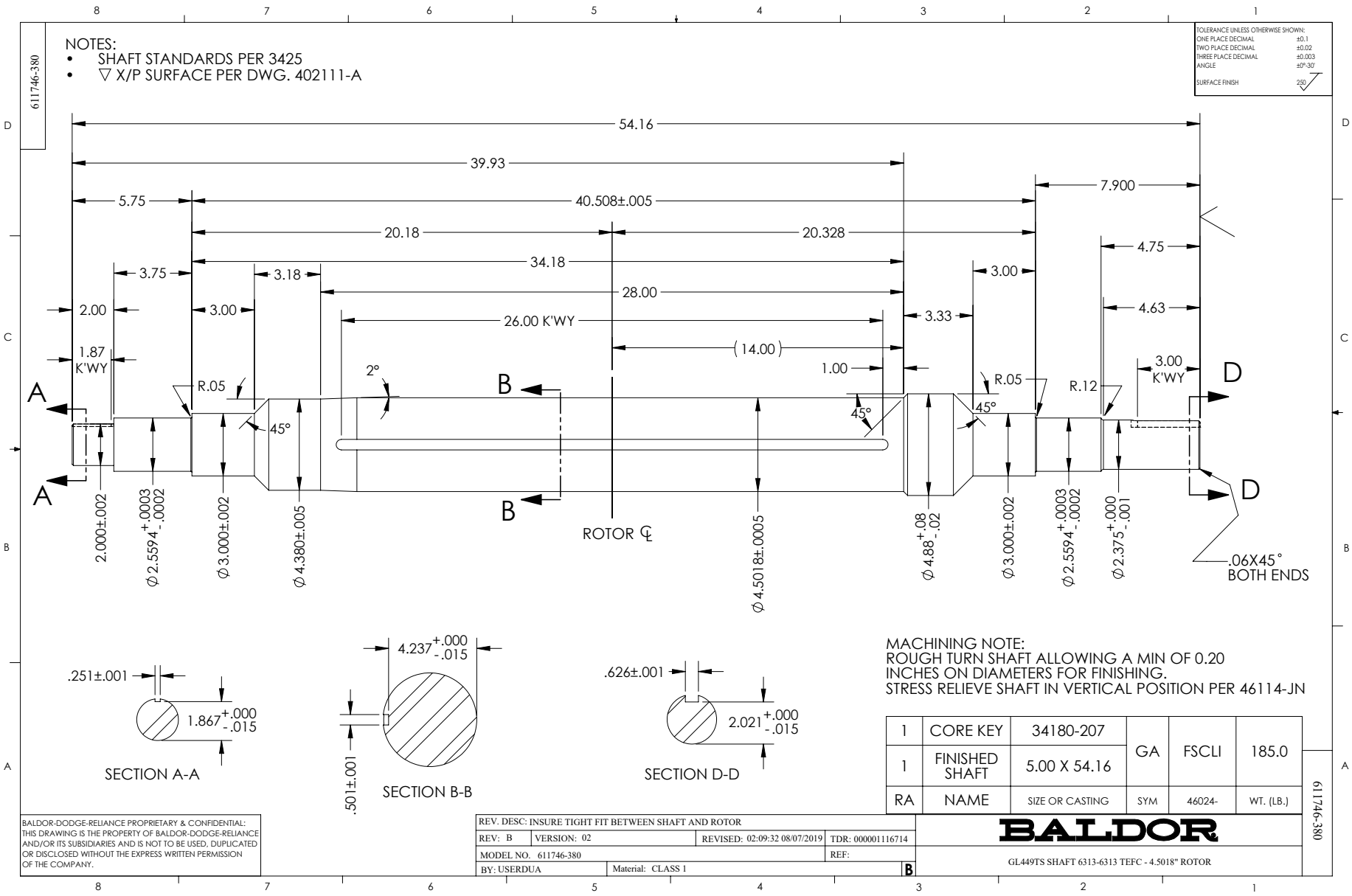
617435-427

| | | | |
|---|---|---|---|
| REV. DESC: ADD NOTE REGARDING AIR DEFLECTOR | | | |
| REV: C | VERSION: 03 | REVISED: 07:44:30 02/27/2024 | TDR: 000001226889 |
| MODEL NO. 617435-427 | | | |
| BY: RAGGDM | | | C |

BALDOR

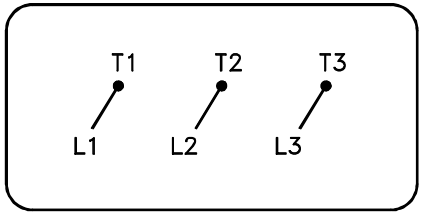
GL449/449TS F1 TEFC FT SIDE MNT 14X14X12 STEEL BOX W/ 4" NPT

617435-427


NOTES:
• SHAFT STANDARDS PER 3425
• ▽ X/P SURFACE PER DWG. 402111-A
611746-380
TOLERANCE UNLESS OTHERWISE SHOWN:
ONE PLACE DECIMAL ±0.1
TWO PLACE DECIMAL ±0.02
THREE PLACE DECIMAL ±0.003
ANGLE ±0°-30'
SURFACE FINISH 250
54.16
39.93
5.75
40.508±.005
7.900
20.18
20.328
4.75
3.75
3.18
34.18
3.00
28.00
2.00
3.00
26.00 K'WY
3.33
4.63
1.87 K'WY
14.00
1.00
3.00 K'WY
R.05
2°
R.05
R.12
45°
45°
45°
A
A
B
B
D
D
2.000±.002
Ø2.559+.0003 -.0002
Ø3.000±.002
Ø4.380±.005
ROTOR ℄
Ø4.5018±.0005
Ø4.88+.08 -.02
Ø3.000±.002
Ø2.559+.0003 -.0002
Ø2.375+.000 -.001
.06X45° BOTH ENDS
.251±.001
1.867+.000 -.015
SECTION A-A
4.237+.000 -.015
.501±.001
SECTION B-B
.626±.001
2.021+.000 -.015
SECTION D-D
MACHINING NOTE:
ROUGH TURN SHAFT ALLOWING A MIN OF 0.20 INCHES ON DIAMETERS FOR FINISHING.
STRESS RELIEVE SHAFT IN VERTICAL POSITION PER 46114-JN
1 CORE KEY 34180-207 GA FSCLI 185.0
1 FINISHED SHAFT 5.00 X 54.16
RA NAME SIZE OR CASTING SYM 46024- WT. (LB.)
611746-380
BALDOR-DODGE-RELIANCE PROPRIETARY & CONFIDENTIAL: THIS DRAWING IS THE PROPERTY OF BALDOR-DODGE-RELIANCE AND/OR ITS SUBSIDIARIES AND IS NOT TO BE USED, DUPLICATED OR DISCLOSED WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE COMPANY.
REV. DESC: INSURE TIGHT FIT BETWEEN SHAFT AND ROTOR
REV: B VERSION: 02 REVISED: 02:09:32 08/07/2019 TDR: 000001116714
MODEL NO. 611746-380 REF:
BY: USERDUA Material: CLASS 1 B
BALDOR
GL449TS SHAFT 6313-6313 TEFC - 4.5018" ROTOR

416820–036

# A–C MOTOR
# CONNECTION DIAGRAM
## STANDARD 3 LEAD CONNECTED




(N.P. 1575–BA)

416820–036

| | | | |
|---|---|---|---|
| REV. DESC: LOADED TO BUS, C/R 335225 | | | BALDOR |
| REV. LTR: – | VERSION: 00 | TDR: 000000538207 | |
| FILE: \MGA\00000\682 | | REVISED: 11:54:06 04/30/2010 | CONN DIAG – STANDARD 3 LEAD |
| MTL: – | | BY: RAGRA | SH 1 of 1 |