

# ABB BALDOR RELIANCE III

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## Customer information packet

### ECP44304T-5

300HP, 1785RPM, 3PH, 60HZ, 449T, TEFC, F1

Class - None

Division - Division II

**Specifications**

|                               |                         |
|-------------------------------|-------------------------|
| Enclosure                     | TEFC                    |
| Frame                         | 449T                    |
| 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            | 300.000 HP @ 60 HZ      |
| Phase                         | 3                       |
| Synchronous Speed @ Frequency | 1800 RPM @ 60 HZ        |
| Voltage @ Frequency           | 575.0 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             | 267.000 A @ 575.0 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             |
| Haz Area Temp Code            | T2C                     |
| Heater Indicator              | No Heater               |
| High Voltage Full Load Amps   | 267.0 a                 |
| Insulation Class              | F                       |
| Inverter Code                 | Not Inverter            |
| KVA Code                      | G                       |
| Motor Lead Quantity/Wire Size | 6 @ 1/0 AWG             |
| Motor Standards               | NEMA                    |

**Part Detail**

|              |                      |
|--------------|----------------------|
| Revision     | D                    |
| Type         | AC                   |
| Mech. spec.  |                      |
| Base         |                      |
| Status       | PRD/A                |
| Elec. spec.  | A44WG5582            |
| Layout       | 617427-243           |
| Eff. date    | 10-24-2024           |
| CD Diagram   | 416820-036           |
| Poles        | 04                   |
| Leads        | 3#1/0 (02 per group) |
| Proprietary  | False                |
| Created date | 08-23-2017           |

|                                 |                    |
|---------------------------------|--------------------|
| <b>Motor Type</b>               | A44160M            |
| <b>Mounting Arrangement</b>     | F1                 |
| <b>Number of Poles</b>          | 4                  |
| <b>Overall Length</b>           | 53.47 IN           |
| <b>Power Factor</b>             | 88                 |
| <b>Product Family</b>           | General Industrial |
| <b>Pulley End Bearing Type</b>  | Ball               |
| <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**

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

**NP3238**

|                           |             |                        |       |                              |               |               |      |
|---------------------------|-------------|------------------------|-------|------------------------------|---------------|---------------|------|
| <b>CAT NO</b>             | ECP44304T-5 |                        |       | <b>SPEC NO.</b>              | A44-5000-5582 |               |      |
| <b>HP</b>                 | 300         | <b>AMPS</b>            | 267   | <b>VOLTS</b>                 | 575           | <b>DESIGN</b> | B    |
| <b>FRAME</b>              | 449T        | <b>RPM</b>             | 1785  | <b>HZ</b>                    | 60            | <b>AMB</b>    | 40   |
|                           |             |                        |       | <b>SF</b>                    | 1.15          |               |      |
| <b>D.E. BRG.DATA</b>      | 6318        | <b>O.D.E. BRG.DATA</b> | 6318  | <b>PH</b>                    | 3             | <b>DUTY</b>   | CONT |
|                           |             | <b>INSUL.CLASS</b>     | F     |                              |               |               |      |
| <b>D.E. BRG.</b>          | 90BC03J30X  | <b>TYPE</b>            | P     | <b>ENCL</b>                  | TEFC          | <b>CODE</b>   | G    |
| <b>O.D.E. BRG.</b>        | 90BC03J30X  | <b>POWER FACTOR</b>    | 88    | <b>NEMA NOM EFFICIENCY</b>   | 96.2          |               |      |
| <b>3/4 LOAD EFF.</b>      | 96.4        | <b>MAX CORR KVAR</b>   | 46    | <b>GUARANTEED EFFICIENCY</b> | 95.4          |               |      |
| <b>TEMP CODE</b>          | T2C         | <b>TEMP =</b>          | 230   |                              |               |               |      |
| <b>CHP HZ</b>             | 60-90       | <b>CT HZ</b>           | 30-60 | <b>VT HZ</b>                 | 0-60          |               |      |
| <b>INVERTER-TEMP-CODE</b> | T2C         |                        |       |                              |               |               |      |
| <b>SER.NO.</b>            |             | <b>MOTOR WEIGHT</b>    |       |                              |               |               |      |

**Parts List**

| Part number | Description                             | Quantity |
|-------------|-----------------------------------------|----------|
| SA343834    | SA A44-5000-5582                        | 1.000 ea |
| RA332304    | RA A44-5000-5582                        | 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 |
| LB1449      | DIV-2/NEC WARNING LABEL                 | 1.000 ea |
| NP3238      | SS CP XEX SEVERE DUTY MAIN NP,CURUS EEV | 1.000 ea |
| 412118006A  | DRAIN                                   | 2.000 ea |
| 089490099A  | G28 BRKT 089490098WCA KB                | 1.000 ea |
| 415072001B  | CLAMP                                   | 1.000 ea |
| 083199082A  | G28 FAN COVER MACHINING SHORT VERSION   | 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 |
| 415096002A  | CPLG 1/8 HEX TYPE                       | 1.000 ea |
| 034630002AB | CPLG 1/4" PLATED                        | 1.000 ea |
| 415045002A  | SLGR                                    | 1.000 ea |
| 410700004A  | WSHR                                    | 1.000 ea |
| 034017014AB | LCKW 3/8 STD. PLATED                    | 4.000 ea |
| 034530064AB | P/NIP 1/8 X 8" L Pipe Nipple            | 1.000 ea |
| 034530064BB | P/NIP 1/4X8 PLATED                      | 1.000 ea |
| 034690005AB | PPLG 3/4 PLATED                         | 1.000 ea |
| 034690002AB | PPLG 1/4" PLTD.                         | 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 |
| 034530064BB | P/NIP 1/4X8 PLATED                     | 1.000 ea |
| 034690002AB | PPLG 1/4" PLTD.                        | 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 |
| 415045002A  | SLGR                                   | 1.000 ea |
| 034530064AB | P/NIP 1/8 X 8" L Pipe Nipple           | 1.000 ea |
| 415096002A  | CPLG 1/8 HEX TYPE                      | 1.000 ea |
| 032018006BK | HHCS 5/16-18X3/4 PLATED                | 3.000 ea |
| 034017013AB | LCKW 5/16 STD. PLATED                  | 3.000 ea |
| 034001013AB | FTW BAFFLE                             | 3.000 ea |
| 415915007G  | GASK, LAC                              | 1.000 ft |
| 076870000BA | CONDUIT BOX - 440 - 1/2-13 GROUND      | 1.000 ea |
| 406056007A  | GASKET, 440                            | 1.000 ea |
| 076871000A  | +CBOX CVR BLKT - 449                   | 1.000 ea |
| 067053014A  | GASK 440                               | 1.000 ea |
| 418150003A  | GREASE FITTING CAP                     | 1.000 ea |
| 032018008BK | HHCS 5/16-18X1L PLATED                 | 4.000 ea |
| 032018008DK | HHCS 1/2-13X1 PLATED                   | 4.000 ea |
| 035000001A  | ALFTG 1/8" 1610-BL                     | 1.000 ea |
| 415000115H  | T/LUG #2AWG-4/0AWG                     | 1.000 ea |
| 406099000A  | PLUG - FAN COVER 320-440               | 1.000 ea |
| 032018005DL | 1/2-13 X 5/8 SILICON BRONZE HHCS       | 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 |
| 034180054KA | 7/8 SQ X 6.75 KEY                      | 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 |
| 604799003C  | PLASTIC BAG 42X32X46     | 1.000 ea |

|                                                                                                                                               |              |                      |                       |                                                                     |                 |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------|-----------------------|---------------------------------------------------------------------|-----------------|-------|
| REL.<br>S.O.                                                                                                                                  | FRAME        | HP                   | TYPE                  | PHASE/<br>HERTZ                                                     | RPM             | VOLTS |
|                                                                                                                                               | 449T         | 300                  | P                     | 3/60                                                                | 1785            | 575   |
|                                                                                                                                               |              |                      |                       |                                                                     |                 |       |
| AMPS                                                                                                                                          | DUTY         | AMB °C/<br>INSUL.    | S.F.                  | NEMA<br>DESIGN                                                      | CODE<br>LETTER  | ENCL. |
| 267                                                                                                                                           | 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)                          |                 |       |
| ---                                                                                                                                           | 418143052ZEQ | ---                  | ---                   | .0153                                                               |                 |       |
| PERFORMANCE                                                                                                                                   |              |                      |                       |                                                                     |                 |       |
| LOAD                                                                                                                                          | HP           | AMPERES              | RPM                   | %<br>POWER FACTOR                                                   | %<br>EFFICIENCY |       |
| NO LOAD                                                                                                                                       | 0            | 77.9                 | 1800                  | 4.36                                                                | 0               |       |
| 1/4                                                                                                                                           | 75.0         | 101                  | 1796                  | 59.2                                                                | 93.8            |       |
| 2/4                                                                                                                                           | 150          | 148                  | 1792                  | 79.4                                                                | 96.0            |       |
| 3/4                                                                                                                                           | 225          | 205                  | 1788                  | 85.4                                                                | 96.3            |       |
| 4/4                                                                                                                                           | 300          | 267                  | 1783                  | 87.5                                                                | 96.2            |       |
| 5/4                                                                                                                                           | 375          | 332                  | 1779                  | 88.4                                                                | 95.8            |       |
|                                                                                                                                               |              |                      |                       |                                                                     |                 |       |
| SPEED TORQUE                                                                                                                                  |              |                      |                       |                                                                     |                 |       |
|                                                                                                                                               |              | RPM                  | TORQUE<br>% FULL LOAD | TORQUE<br>LB. - FT.                                                 | AMPERES         |       |
| LOCKED ROTOR                                                                                                                                  |              | 0                    | 166                   | 1469                                                                | 1753            |       |
| PULL UP                                                                                                                                       |              | 1200                 | 139                   | 1232                                                                | 1401            |       |
| BREAKDOWN                                                                                                                                     |              | 1723                 | 277                   | 2449                                                                | 928             |       |
| FULL LOAD                                                                                                                                     |              | 1783                 | 100                   | 884                                                                 | 267             |       |
| AMPERES SHOWN FOR 575. 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%                                                                                        |              |                      |                       |                                                                     |                 |       |
|                                                            |              | DR. BY C.E. JAMISON  |                       | A-C MOTOR<br>PERFORMANCE DATA A44WG5582-R001<br>ISSUE DATE 06/19/18 |                 |       |
|                                                                                                                                               |              | CK. BY W.L. SMITH    |                       |                                                                     |                 |       |
|                                                                                                                                               |              | APP. BY C.E. JAMISON |                       |                                                                     |                 |       |
|                                                                                                                                               |              | DATE 08/22/17        |                       |                                                                     |                 |       |

REL S.O.

 RPM **1785**

 S.F. **1.15**

 ROTOR **418143052ZEQ**

 FRAME **449T**

 VOLTS **575**

 NEMA DESIGN **B**

 TEST S.O. **TYPICAL DATA**

 HP **300**

 AMPS **267**

 CODE LETTER **G**

 TEST DATE **---**

 TYPE **P**

 DUTY **CONT**

 ENCLOSURE **TEFC**

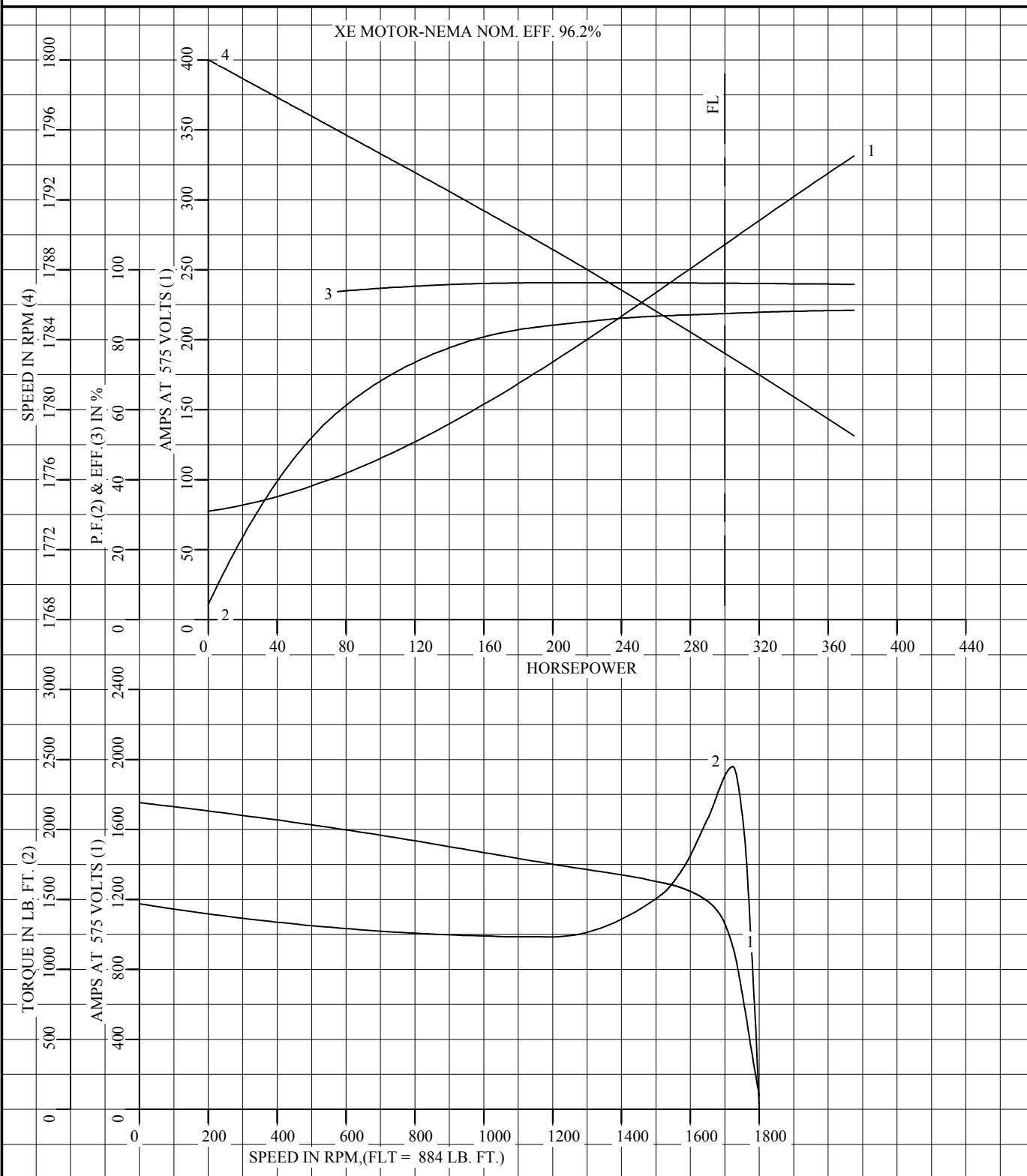
 STATOR RES. @ 25 °C **.0153**

 PHASE/HERTZ **3/60**

 AMB °C/INSUL **40/F**

 E/S **---**

OHMS (BETWEEN LINES)



AMPERES SHOWN FOR 575 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 C.E. JAMISON  
CK. BY W.L. SMITH  
APP. BY C.E. JAMISON  
DATE 08/22/17

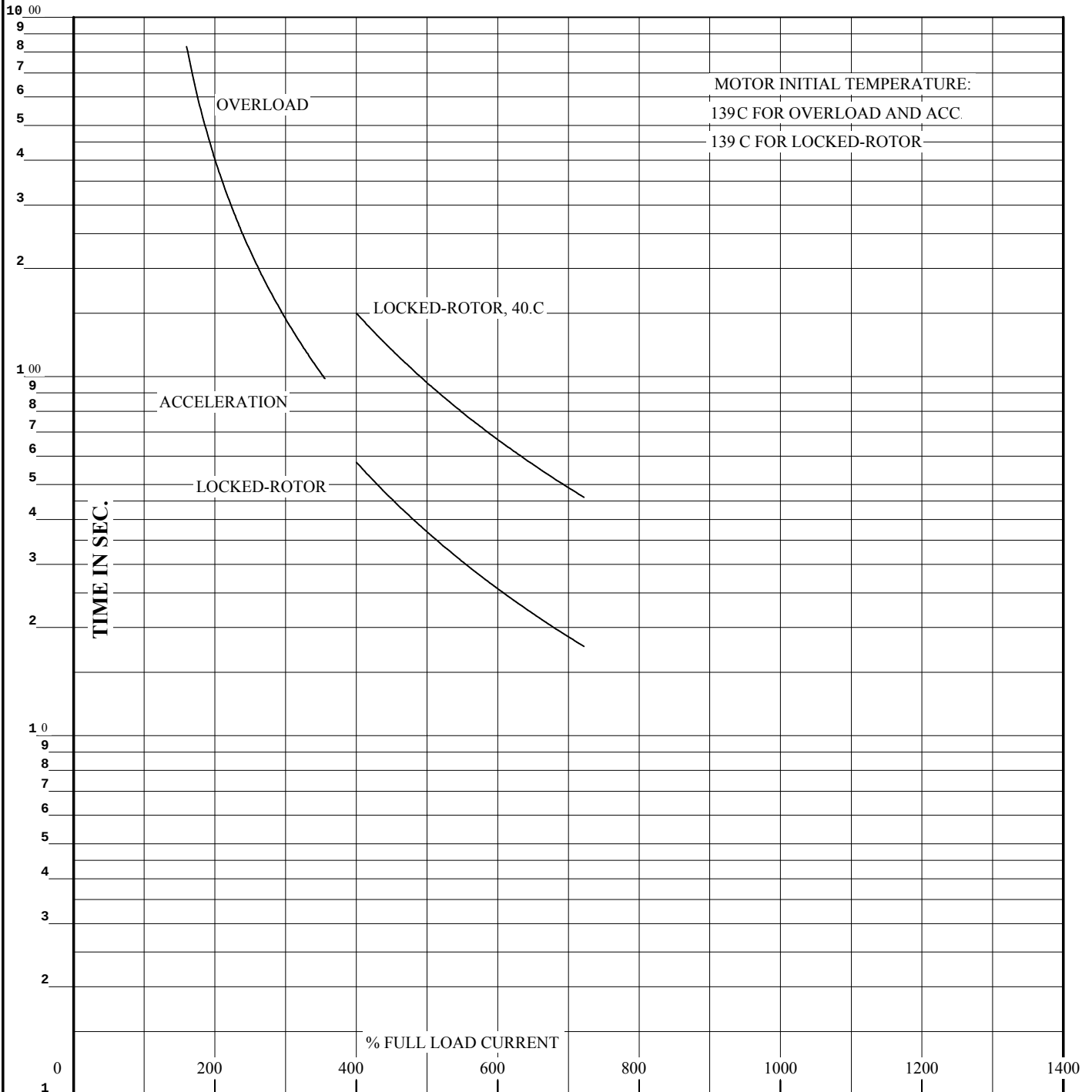
**A-C MOTOR  
PERFORMANCE  
CURVES**

A44WG5582-R001  
ISSUE DATE 06/19/18

REL. S.O.  
 FRAME **449T**  
 HP **300**  
 TYPE **P**  
 PHASE/HERTZ **3/60**

 RPM **1785**  
 VOLTS **575**  
 AMPS **267**  
 DUTY **CONT**  
 AMB °C/INSUL **40/F**

 S.F. **1.15**  
 NEMA DESIGN **B**  
 CODE LETTER **G**  
 ENCLOSURE **TEFC**  
 E/S **---**

 ROTOR **418143052ZEQ**  
 TEST S.O. **TYPICAL DATA**  
 TEST DATE **---**  
 STATOR RES. @ 25 °C **.0153**  
 OHMS (BETWEEN LINES)


THERMAL LIMIT CURVE

REMARKS: XE MOTOR-NEMA NOM. EFF. 96.2%

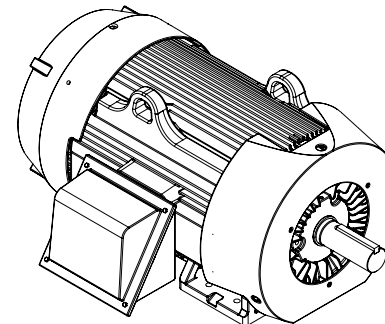
 AMPERES SHOWN FOR 575 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

**BALDOR**  
 A MEMBER OF THE ABB GROUP

 DR. BY C.E. JAMISON  
 CK. BY W.L. SMITH  
 APP. BY C.E. JAMISON  
 DATE 08/22/17
**A-C MOTOR  
PERFORMANCE  
CURVES**
**A44WG5582-R001**  
 ISSUE DATE 06/19/18 Page 11 of 13

COOLING: FAN COOLED

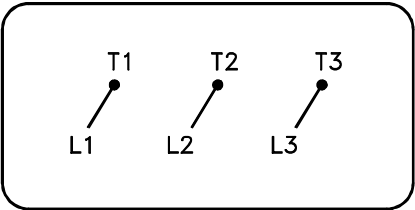
V-RING SLINGER BOTH ENDS



G449/447T TEFC F1 FT - V-RING SLINGERS - STD CI C/BOX

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 |                                |                   |
| 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