

# ABB BALDOR RELIANCE III

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## Customer information packet

### ECP49404T-5

400HP, 1785RPM, 3PH, 60HZ, L449T, TEFC, F1

Class - None

Division - Division II

**Specifications**

|                               |                         |
|-------------------------------|-------------------------|
| Enclosure                     | TEFC                    |
| Frame                         | L449T                   |
| 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 | 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             | 356.000 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             |
| Frame Prefix                  | L                       |
| Haz Area Temp Code            | T2C                     |
| Heater Indicator              | No Heater               |
| High Voltage Full Load Amps   | 356.0 a                 |
| Insulation Class              | F                       |
| Inverter Code                 | Inverter Ready          |
| KVA Code                      | G                       |
| Motor Lead Quantity/Wire Size | 12 @ 1 AWG              |

**Part Detail**

|              |                    |
|--------------|--------------------|
| Revision     | E                  |
| Type         | AC                 |
| Mech. spec.  |                    |
| Base         |                    |
| Status       | PRD/A              |
| Elec. spec.  | A44WG5532          |
| Layout       | 617423-494         |
| Eff. date    | 10-24-2024         |
| CD Diagram   | 416820-036         |
| Poles        | 04                 |
| Leads        | 3#1 (04 per group) |
| Proprietary  | False              |
| Created date | 08-25-2017         |

|                                 |                    |
|---------------------------------|--------------------|
| <b>Motor Standards</b>          | <b>NEMA</b>        |
| <b>Motor Type</b>               | A44208M            |
| <b>Mounting Arrangement</b>     | F1                 |
| <b>Number of Poles</b>          | 4                  |
| <b>Overall Length</b>           | 60.47 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**

|                    |             |                 |       |              |                       |               |                     |        |      |             |   |
|--------------------|-------------|-----------------|-------|--------------|-----------------------|---------------|---------------------|--------|------|-------------|---|
| CAT NO             | ECP49404T-5 |                 |       | SPEC NO.     |                       | A44-8455-5532 |                     |        |      |             |   |
| HP                 | 400         | AMPS            | 356   | VOLTS        |                       | 575           |                     | DESIGN | B    |             |   |
| FRAME              | L449T       | RPM             | 1785  | HZ           | 60                    | AMB           | 40                  | SF     | 1.15 |             |   |
| D.E. BRG.DATA      | 6318        | O.D.E. BRG.DATA |       |              | 6318                  | PH            | 3                   | DUTY   | CONT | INSUL.CLASS | F |
| D.E. BRG.          | 90BC03J30X  |                 |       | TYPE         | P                     | ENCL          | TEFC                | CODE   | G    |             |   |
| O.D.E. BRG.        | 90BC03J30X  |                 |       | POWER FACTOR |                       | 88            | NEMA NOM EFFICIENCY |        |      | 96.2        |   |
| 3/4 LOAD EFF.      | 96.3        | MAX CORR KVAR   |       | 69           | GUARANTEED EFFICIENCY |               |                     | 95.4   |      |             |   |
| TEMP CODE          | T2C         | TEMP =          | 230   |              |                       |               |                     |        |      |             |   |
| CHP HZ             | 60-90       | CT HZ           | 30-60 | VT HZ        | 0-60                  |               |                     |        |      |             |   |
| INVERTER-TEMP-CODE | T2C         |                 |       |              |                       |               |                     |        |      |             |   |
| SER.NO.            |             |                 |       | MOTOR WEIGHT |                       |               |                     |        |      |             |   |

|                                                                                                                                                                                        |              |                                                                                   |                       |                                                                     |                 |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------|-----------------|-------|
| REL.<br>S.O.                                                                                                                                                                           | FRAME        | HP                                                                                | TYPE                  | PHASE/<br>HERTZ                                                     | RPM             | VOLTS |
|                                                                                                                                                                                        | L449T        | 400                                                                               | P                     | 3/60                                                                | 1785            | 575   |
| AMPS                                                                                                                                                                                   | DUTY         | AMB °C/<br>INSUL.                                                                 | S.F.                  | NEMA<br>DESIGN                                                      | CODE<br>LETTER  | ENCL. |
| 356                                                                                                                                                                                    | 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)                          |                 |       |
| -                                                                                                                                                                                      | 418143048REQ | ---                                                                               | ---                   | .0107                                                               |                 |       |
| PERFORMANCE                                                                                                                                                                            |              |                                                                                   |                       |                                                                     |                 |       |
| LOAD                                                                                                                                                                                   | HP           | AMPERES                                                                           | RPM                   | %<br>POWER FACTOR                                                   | %<br>EFFICIENCY |       |
| NO LOAD                                                                                                                                                                                | 0            | 93.6                                                                              | 1800                  | 5.06                                                                | 0               |       |
| 1/4                                                                                                                                                                                    | 100          | 127                                                                               | 1796                  | 63.0                                                                | 93.5            |       |
| 2/4                                                                                                                                                                                    | 200          | 191                                                                               | 1793                  | 81.7                                                                | 95.8            |       |
| 3/4                                                                                                                                                                                    | 300          | 270                                                                               | 1789                  | 86.4                                                                | 96.3            |       |
| 4/4                                                                                                                                                                                    | 400          | 356                                                                               | 1785                  | 87.6                                                                | 96.2            |       |
| 5/4                                                                                                                                                                                    | 500          | 443                                                                               | 1780                  | 88.2                                                                | 95.8            |       |
| SPEED TORQUE                                                                                                                                                                           |              |                                                                                   |                       |                                                                     |                 |       |
|                                                                                                                                                                                        |              | RPM                                                                               | TORQUE<br>% FULL LOAD | TORQUE<br>LB.-FT.                                                   | AMPERES         |       |
| LOCKED ROTOR                                                                                                                                                                           |              | 0                                                                                 | 175                   | 2054                                                                | 2320            |       |
| PULL UP                                                                                                                                                                                |              | 1170                                                                              | 136                   | 1607                                                                | 2118            |       |
| BREAKDOWN                                                                                                                                                                              |              | 1725                                                                              | 254                   | 2987                                                                | 1317            |       |
| FULL LOAD                                                                                                                                                                              |              | 1785                                                                              | 100                   | 1177                                                                | 356             |       |
| AMPERES SHOWN FOR 575. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE<br>AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE<br><br>REMARKS: TYPICAL DATA<br>XE MOTOR |              |                                                                                   |                       |                                                                     |                 |       |
|                                                                                                     |              | DR. BY C.E. JAMISON<br>CK. BY W.L. SMITH<br>APP. BY C.E. JAMISON<br>DATE 08/23/17 |                       | A-C MOTOR<br>PERFORMANCE DATA A44WG5532-R002<br>ISSUE DATE 08/30/17 |                 |       |

REL S.O.

RPM 1785

S.F. 1.15

ROTOR 418143048REQ

FRAME L449T

VOLTS 575

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 400

AMPS 356

CODE LETTER G

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE TEFC

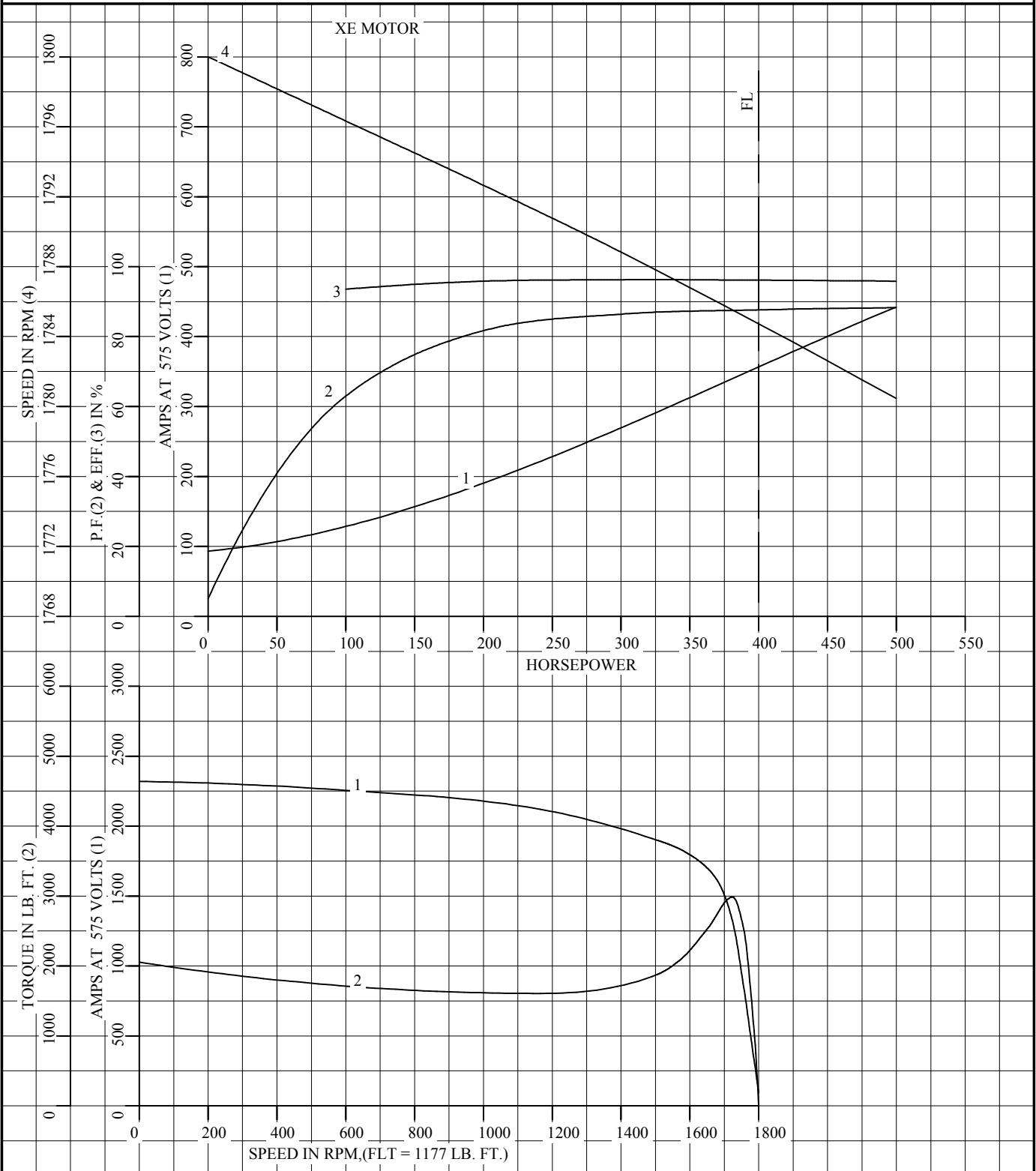
STATOR RES. @ 25 °C .0107

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 08/23/17

**A-C MOTOR  
PERFORMANCE  
CURVES**

A44WG5532-R002  
ISSUE DATE 08/30/17

Page 7 of 11

REL. S.O.

RPM 1785

S.F. 1.15

ROTOR 418143048REQ

FRAME L449T

VOLTS 575

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 400

AMPS 356

CODE LETTER G

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE TEFC

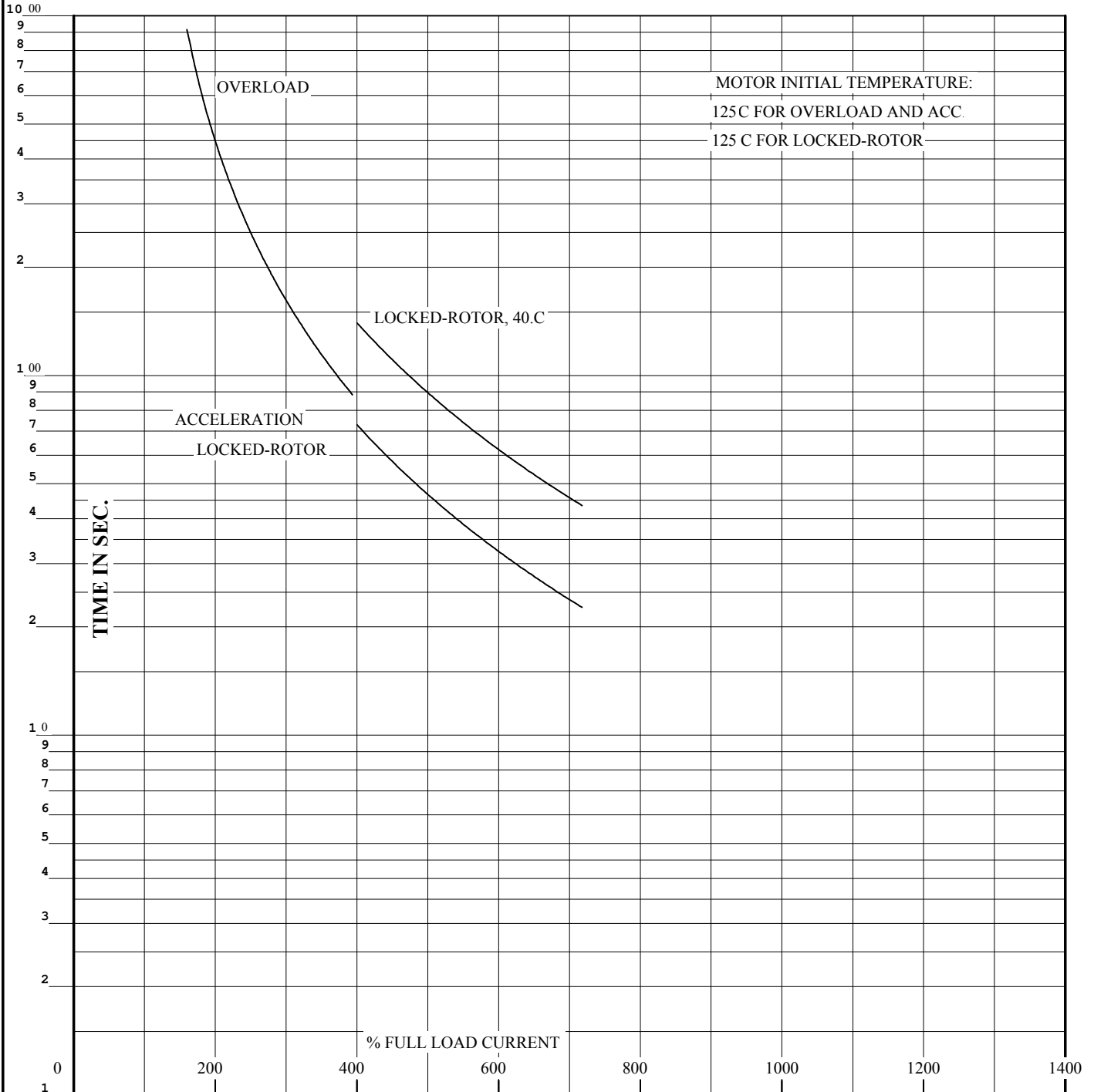
STATOR RES. @ 25 °C .0107

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S -

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS:

XE MOTOR

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

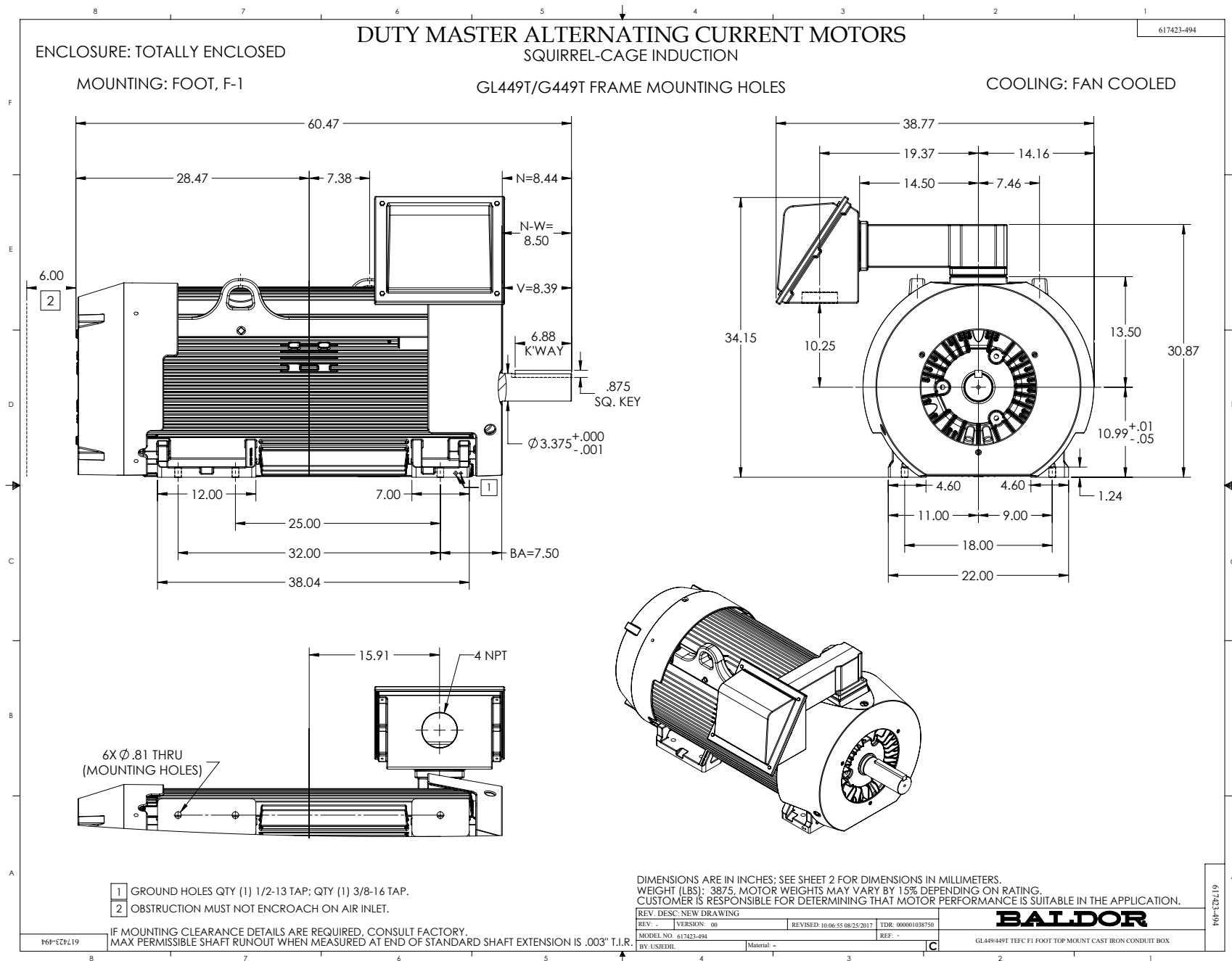
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DATE 08/23/17

**A-C MOTOR  
PERFORMANCE  
CURVES**

A44WG5532-R002

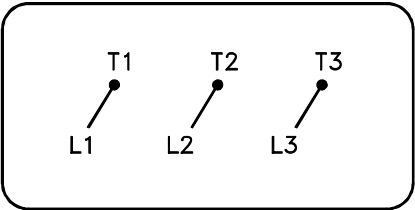
ISSUE DATE 08/30/17 Page 8 of 11





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