

# ABB BALDOR RELIANCE III

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## Customer information packet

### CECP84316T-4

75HP, 1780RPM, 3PH, 60HZ, 365TC, A36070M, TEFC

Class - CLI GP A,B,C,D

Division - Division II

**Specifications**

|                                      |                                                 |
|--------------------------------------|-------------------------------------------------|
| <b>Enclosure</b>                     | TEFC                                            |
| <b>Frame</b>                         | 365TC                                           |
| <b>Frame Material</b>                | Iron                                            |
| <b>Frequency</b>                     | 60.00 Hz                                        |
| <b>Haz Area Class and Group</b>      | CLI GP A,B,C,D                                  |
| <b>Haz Area Division</b>             | Division II                                     |
| <b>Motor Letter Type</b>             | Three Phase                                     |
| <b>Output @ Frequency</b>            | 75.000 HP @ 60 HZ                               |
| <b>Phase</b>                         | 3                                               |
| <b>Synchronous Speed @ Frequency</b> | 1800 RPM @ 60 HZ                                |
| <b>Voltage @ Frequency</b>           | 460.0 V @ 60 HZ                                 |
| <b>Agency Approvals</b>              | CCSAUSEEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>UR |
| <b>Ambient Temperature</b>           | 40 °C                                           |
| <b>Auxiliary Box</b>                 | NO AUXILLARY BOX                                |
| <b>Base Indicator</b>                | Rigid                                           |
| <b>Bearing Grease Type</b>           | Polyrex EM (-20F +300F)                         |
| <b>Constant Torque Speed Range</b>   | 15-60                                           |
| <b>Current @ Voltage</b>             | 86.000 A @ 460.0 V                              |
| <b>Design Code</b>                   | B                                               |
| <b>Drip Cover</b>                    | No Drip Cover                                   |
| <b>Duty Rating</b>                   | CONT                                            |
| <b>Efficiency @ 100% Load</b>        | 95.4 %                                          |
| <b>Feedback Device</b>               | NO FEEDBACK                                     |
| <b>Heater Indicator</b>              | No Heater                                       |
| <b>High Voltage Full Load Amps</b>   | 86.0 a                                          |
| <b>Insulation Class</b>              | F                                               |
| <b>Inverter Code</b>                 | Inverter Ready                                  |
| <b>KVA Code</b>                      | G                                               |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs                           |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | G          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  |            |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | A36WG3963  |
| <b>Layout</b>       | 617428-620 |
| <b>Eff. date</b>    | 08-26-2024 |
| <b>CD Diagram</b>   | 416820-036 |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 3#4        |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 04-26-2021 |

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Max Speed</b>                     | 2700 rpm                   |
| <b>Motor Lead Quantity/Wire Size</b> | 3 @ 4 AWG                  |
| <b>Motor Standards</b>               | NEMA                       |
| <b>Motor Type</b>                    | A36070M                    |
| <b>Mounting Arrangement</b>          | F1                         |
| <b>Number of Poles</b>               | 4                          |
| <b>Overall Length</b>                | 33.48 IN                   |
| <b>Power Factor</b>                  | 86                         |
| <b>Pulley End Bearing Type</b>       | Ball                       |
| <b>Pulley Face Code</b>              | C-Face                     |
| <b>Service Factor</b>                | 1.15                       |
| <b>Shaft Diameter</b>                | 2.375 IN                   |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding         |
| <b>Shaft Rotation</b>                | Phase Seq-Std Rot (CCWODE) |
| <b>Shaft Slinger Indicator</b>       | No Slinger                 |
| <b>Speed</b>                         | 1780 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**

| NP4388                  |               |    |             |    |   |      |                  |        |      |         |             |      |      |        |  |       |   |
|-------------------------|---------------|----|-------------|----|---|------|------------------|--------|------|---------|-------------|------|------|--------|--|-------|---|
| CAT #                   | CECP84316T-4  |    |             |    |   |      | FR               | 365TC  |      |         | IP56        |      |      |        |  |       |   |
| SPEC                    | A36-7814-3963 |    |             |    |   |      | ENCL             |        | TEFC |         | DES         | B    |      |        |  |       |   |
| HZ                      | 60            | PH | 3           | CL | F | HP   | 75               | SF     | 1.15 | PF      | 86          | %    | CODE | G      |  |       |   |
| VOLTS                   | 460           |    |             |    |   | AMPS |                  | 86     |      |         |             |      |      |        |  |       |   |
| RPM                     | 1780          |    | MAX RPM     |    |   | 2700 | SER              |        |      |         |             |      |      |        |  |       |   |
| NEMA NOM. EFF           | 95.4          | %  | RATING      |    |   |      | 40C AMB-CONT     |        |      |         |             |      |      |        |  |       |   |
| GUAR MIN. EFF           | 94.5          | %  | BRG DE      |    |   |      | 6313             |        |      | BRG ODE |             | 6313 |      |        |  |       |   |
| CL I DIV 2 GRPS A,B,C,D |               |    |             |    |   |      | CL I ZONE 2 GRPS |        |      |         | IIA,IIB,IIC |      |      | TEMP T |  | 3-200 | C |
| CT HZ                   | 15-60         |    | VT HZ       |    |   | 0-60 |                  |        |      |         |             |      |      |        |  |       |   |
| CHP HZ                  | 60-90         |    | INV TEMP CL |    |   |      |                  | 200    | C    |         |             |      |      |        |  |       |   |
|                         |               |    |             |    |   |      |                  | MTR WT |      | 993     | LBS         |      |      |        |  |       |   |

| NP4333                    |  |                  |  |               |  |            |  |   |  |
|---------------------------|--|------------------|--|---------------|--|------------|--|---|--|
| CAT #                     |  | CECP84316T-4     |  | ROTOR BARS    |  | 47         |  |   |  |
| SPEC                      |  | A36-7814-3963    |  | STATOR SLOTS  |  | 60         |  |   |  |
| SER                       |  |                  |  | MAX CORR KVAR |  | 15.8       |  |   |  |
| GREASE                    |  | POLYREX EM       |  |               |  |            |  |   |  |
| ABMA DE BRG               |  | 65BC03J30X       |  | ODE           |  | 65BC03J30X |  |   |  |
|                           |  |                  |  |               |  |            |  |   |  |
|                           |  |                  |  |               |  |            |  |   |  |
| SPACE HEATER LEADS H1-H2: |  | TIE LIKE NUMBERS |  |               |  | TOGETHER   |  |   |  |
| MAX. SPACE HEATER TEMP.   |  | C                |  | V             |  | A          |  | W |  |

## AC Induction motor performance data

Record #71698 - Typical performance - not guaranteed values

|           |           |
|-----------|-----------|
| Winding   | A36WG3963 |
| Type      | A3670M    |
| Enclosure | TEFC      |

## Nameplate data

|                |    |              |      |
|----------------|----|--------------|------|
| Rated Output   |    |              | 75   |
| Volts          |    |              | 460  |
| Full Load Amps |    |              | 86   |
| R.P.M.         |    |              | 1780 |
| Hz             | 60 | Phase        | 3    |
| KVA Code       |    |              | F    |
| S.F.           |    |              | 1.15 |
| NEMA Nom. Eff. | 95 | Power Factor | 86   |
| Duty           |    |              | CONT |
| S.F. Amps      |    |              |      |

460 V. 60 Hz:

## Single Voltage Motor

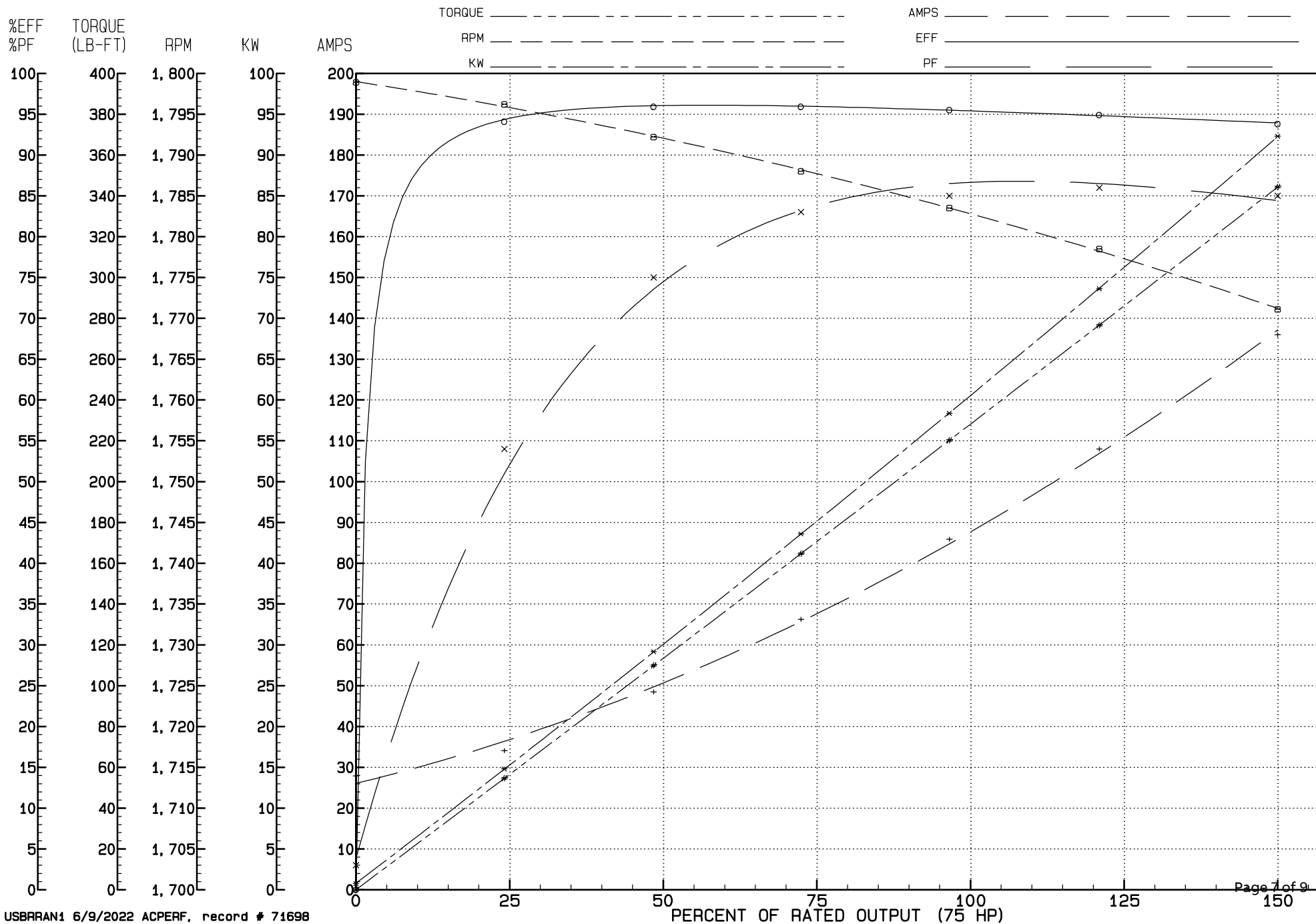
|                           |                         |
|---------------------------|-------------------------|
| Full Load Torque          | 220.2 LB-FT             |
| Start Configuration       | direct on line          |
| Breakdown Torque          | 542 LB-FT               |
| Pull-up Torque            | 372 LB-FT               |
| Locked-rotor Torque       | 445 LB-FT               |
| Starting Current          | 541 A                   |
| No-load Current           | 27.9                    |
| Line-line Res. @ 25°C     | 0.082276 Ω              |
| Temp. Rise @ Rated Load   | 55°C                    |
| Temp. Rise @ S.F. Load    | 69°C                    |
| Locked-rotor Power Factor | 31.8                    |
| Rotor inertia             | 16.2 lb-ft <sup>2</sup> |

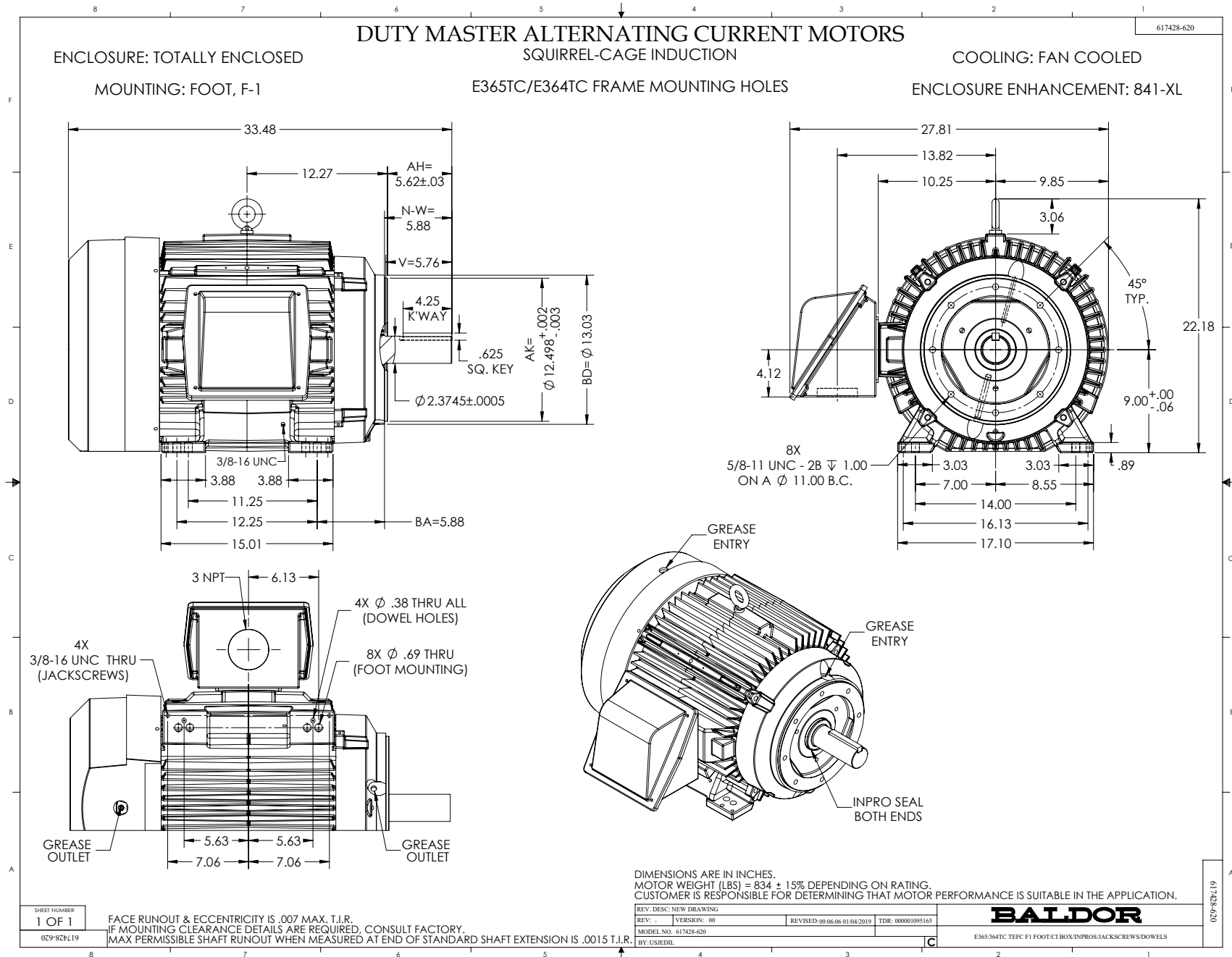
## Load Characteristics 460 V, 60 Hz, 75 HP

|                 |        |        |        |      |        |        |        |      |
|-----------------|--------|--------|--------|------|--------|--------|--------|------|
| % of Rated Load | NL     | 25     | 50     | 75   | 100    | 125    | 150    | SF   |
| Power Factor    | 3      | 54     | 75     | 83   | 85     | 86     | 85     | 86   |
| Efficiency      | 0      | 94.1   | 95.9   | 95.9 | 95.5   | 94.9   | 93.8   | 95.1 |
| Speed           | 1798.9 | 1796.2 | 1792.2 | 1788 | 1783.5 | 1778.5 | 1771.1 | 1780 |
| Line amperes    | 27.9   | 34.1   | 48.5   | 66.3 | 85.9   | 108    | 136    | 99.2 |

75 HP 3 PH 60 HZ 1780 RPM 460 V A3670M

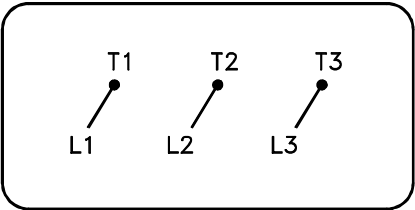
TORQUES (LB-FT): PO=542.00 PU=372.00 LR=445.00 LRA=541.00





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