

# ABB BALDOR RELIANCE III

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## Customer information packet

### ECP4314T-4

60HP, 1780RPM, 3PH, 60HZ, 364T, A3658M, TEFC, F

Class - CLI GP A,B,C,D

Division - Division II

**Specifications**

|                                      |                                                 |
|--------------------------------------|-------------------------------------------------|
| <b>Enclosure</b>                     | TEFC                                            |
| <b>Frame</b>                         | 364T                                            |
| <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>            | 60.000 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>   | 10-60                                           |
| <b>Current @ Voltage</b>             | 70.000 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>        | 95.0 %                                          |
| <b>Feedback Device</b>               | NO FEEDBACK                                     |
| <b>Haz Area Temp Code</b>            | T3                                              |
| <b>Heater Indicator</b>              | No Heater                                       |
| <b>High Voltage Full Load Amps</b>   | 70.0 a                                          |
| <b>Insulation Class</b>              | F                                               |
| <b>Inverter Code</b>                 | Inverter Ready                                  |
| <b>KVA Code</b>                      | G                                               |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | AA         |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  |            |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | A36WG4085  |
| <b>Layout</b>       | 617428-034 |
| <b>Eff. date</b>    | 07-24-2025 |
| <b>CD Diagram</b>   | CD0006     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 3#4        |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 10-19-2010 |

| Lifting Lugs                  | Standard Lifting Lugs |
|-------------------------------|-----------------------|
| Max Speed                     | 2700 rpm              |
| Motor Lead Quantity/Wire Size | 3 @ 4 AWG             |
| Motor Standards               | NEMA                  |
| Motor Type                    | A3658M                |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 4                     |
| Overall Length                | 33.49 IN              |
| Power Factor                  | 84                    |
| Pulley End Bearing Type       | Ball                  |
| Pulley Face Code              | Standard              |
| Service Factor                | 1.15                  |
| Shaft Diameter                | 2.375 IN              |
| Shaft Ground Indicator        | No Shaft Grounding    |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | Shaft Slinger         |
| Speed                         | 1780 rpm              |
| Speed Code                    | Single Speed          |
| Starting Method               | Direct on line        |
| Thermal Device - Bearing      | None                  |
| Thermal Device - Winding      | None                  |

**Nameplate**

| NP4033LUA               |   |            |       |                  |     |                    |               |              |        |        |      |        |       |               |    |   |
|-------------------------|---|------------|-------|------------------|-----|--------------------|---------------|--------------|--------|--------|------|--------|-------|---------------|----|---|
| CAT #                   |   | ECP4314T-4 |       |                  |     | SER                |               |              |        |        | CC   |        | 010A  |               |    |   |
| SPEC                    |   | P36G3304   |       |                  |     | RATING             |               | 40C AMB-CONT |        |        |      |        |       |               |    |   |
| HZ                      |   | VOLTS      |       | AMPS             |     | RPM                |               | HP           | CODE   | -      | SF   | DES    | PF    | NEMA NOM. EFF |    |   |
| 60                      |   | 460        |       | 70               |     | 1780               |               | 60           | G      |        | 1.15 | B      | 84    | %             | 95 | % |
|                         |   |            |       |                  |     |                    |               |              |        |        |      |        | %     |               |    | % |
| PH                      | 3 | CL         | F     | MAX RPM          |     | 2700               | MAX CORR KVAR |              |        | 13.8   |      |        |       |               |    |   |
| BRG                     |   | DE         | 6313  |                  | ODE | 6313               |               | ENCL         | TEFC   | FR     | 364T |        | IP    | 55            |    |   |
| GREASE                  |   | POLYREX EM |       |                  |     |                    |               |              |        | MTR WT |      | 941    | LBS   |               |    |   |
| CL I DIV 2 GRPS A,B,C,D |   |            |       | CL I ZONE 2 GRPS |     |                    |               | IIA,IIB,IIC  |        |        |      | TEMP T |       | 200           | C  |   |
| INV READY               |   | CT         | 15-60 | HZ               | 4:1 | VT                 | 0-60          | HZ           | 1000:1 |        | CHP  | 60-90  | HZ    | 1.5:1         |    |   |
| INV TEMP CL             |   | 200        | C     | USABLE AT        |     | 50HZ 50HP 380V 70A |               |              |        |        |      |        | SF1.0 |               |    |   |
|                         |   |            |       |                  |     |                    |               |              |        |        |      |        |       |               |    |   |

## AC Induction motor performance data

Record #72800 - Typical performance - not guaranteed values

|           |           |
|-----------|-----------|
| Winding   | A36WG4085 |
| Type      | A3658M    |
| Enclosure | TEFC      |

## Nameplate data

|                |    |              |      |
|----------------|----|--------------|------|
| Rated Output   |    |              | 60   |
| Volts          |    |              | 460  |
| Full Load Amps |    |              | 70   |
| R.P.M.         |    |              | 1780 |
| Hz             | 60 | Phase        | 3    |
| KVA Code       |    |              | G    |
| S.F.           |    |              | 1.15 |
| NEMA Nom. Eff. | 95 | Power Factor | 84   |
| Duty           |    |              | CONT |
| S.F. Amps      |    |              |      |

## 460 V. 60 Hz:

## High Voltage Connection

|                           |                  |
|---------------------------|------------------|
| Full Load Torque          | 176.4 LB-FT      |
| Start Configuration       | direct on line   |
| Breakdown Torque          | 422 LB-FT        |
| Pull-up Torque            | 276 LB-FT        |
| Locked-rotor Torque       | 352 LB-FT        |
| Starting Current          | 462 A            |
| No-load Current           | 24.8             |
| Line-line Res. @ 25°C     | 0.10816 $\Omega$ |
| Temp. Rise @ Rated Load   | 56°C             |
| Temp. Rise @ S.F. Load    | 70°C             |
| Locked-rotor Power Factor | 32.1             |
| Rotor inertia             | 0                |

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

|                 |        |        |        |      |        |        |        |      |
|-----------------|--------|--------|--------|------|--------|--------|--------|------|
| % of Rated Load | NL     | 25     | 50     | 75   | 100    | 125    | 150    | SF   |
| Power Factor    | 4      | 51     | 73     | 81   | 84     | 86     | 85     | 85   |
| Efficiency      | 0      | 92.6   | 95.1   | 95.4 | 95.2   | 94.6   | 93.8   | 94.8 |
| Speed           | 1798.9 | 1796.4 | 1792.4 | 1788 | 1783.7 | 1778.3 | 1772.3 | 1780 |
| Line amperes    | 24.8   | 29.7   | 40.7   | 54.4 | 69.7   | 86.6   | 105    | 79.8 |

# REVIEW

**BALDOR  
RELIANCE**

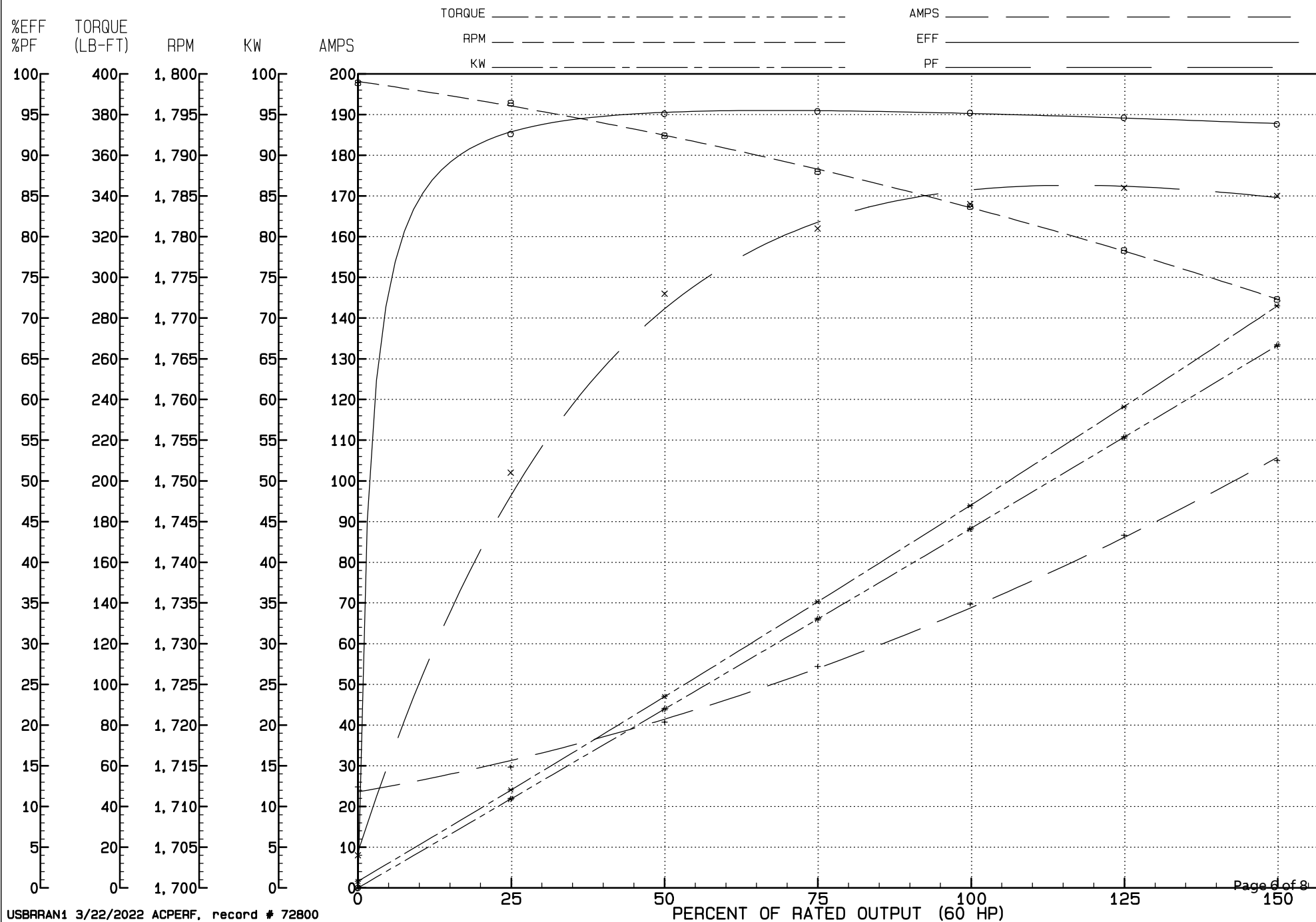
CUSTOMER INFORMATION PACKET

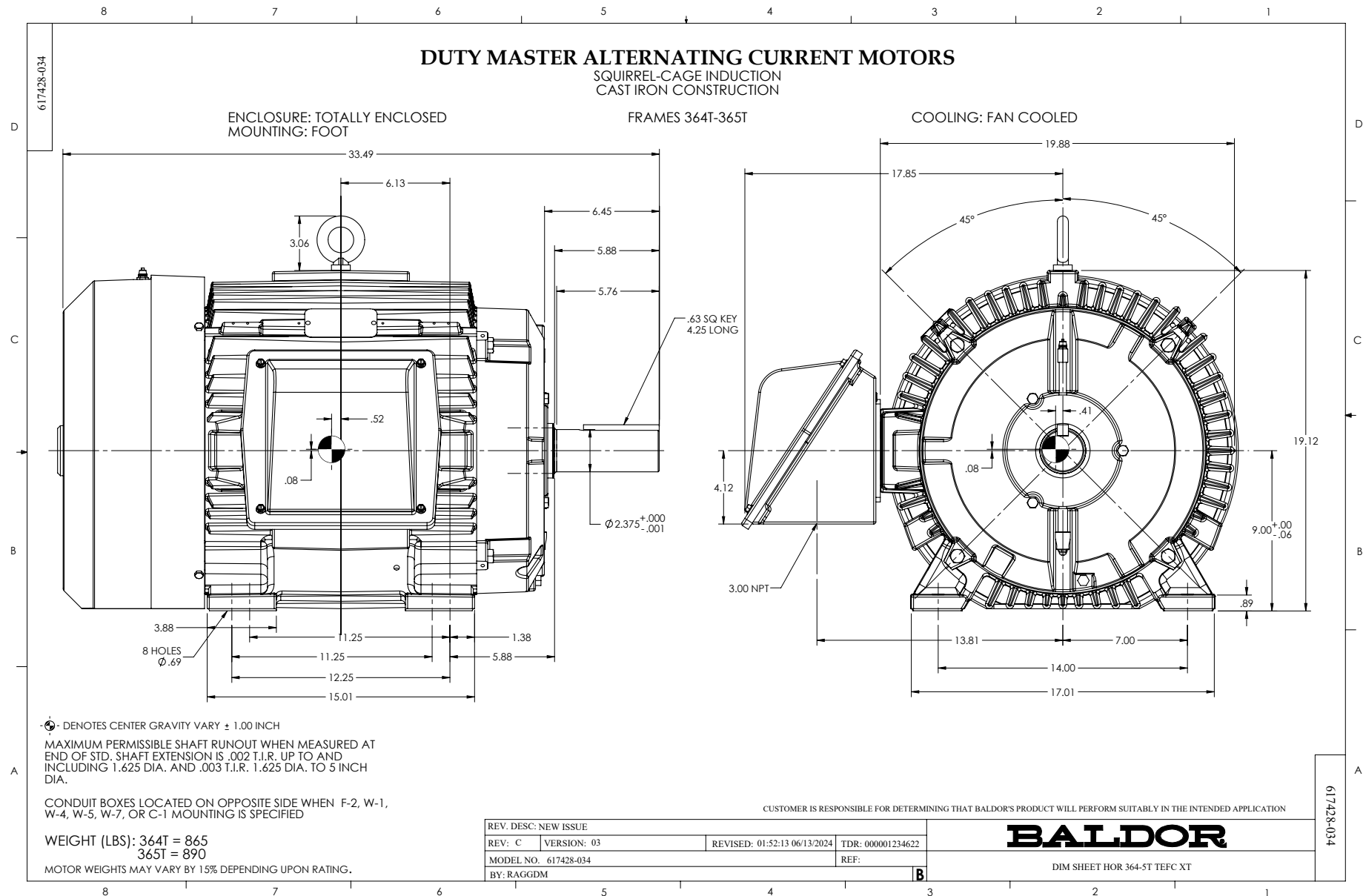
ECP4314T-4 - 60HP, 1780RPM, 3PH, 60HZ, 364T, A3658M, TEFC, F

WINDING # A36WG4085

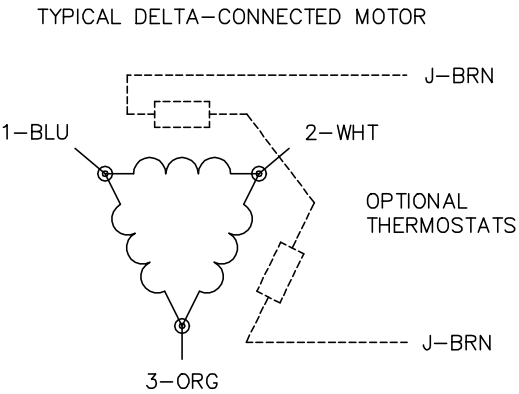
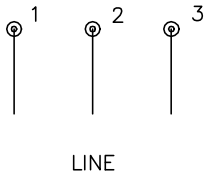
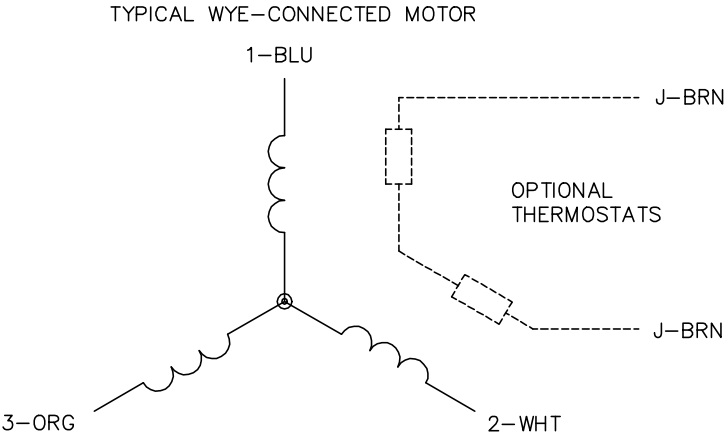
60 HP 3 PH 60 HZ 1780 RPM 460 V A3658M

TORQUES (LB-FT): P0=422.00 PU=276.00 LR=352.00 LRA=462.00





CD0006



- NOTES:
1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
  2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
  3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
  4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
  5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

|                                   |                                |                   |
|-----------------------------------|--------------------------------|-------------------|
| REV. DESC: ADD CLASS CONN00000007 |                                |                   |
| REV. LTR: E                       | VERSION: 01                    | TDR: 000001099922 |
| FILE: \AAA\00005\141              | REVISED: 10: 24: 49 02/19/2019 | BY: ENBRIRO       |
| MTL: —                            |                                |                   |

**BALDOR - RELIANCE®**

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

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