

# ABB BALDOR RELIANCE III

---

## Customer information packet

### M3112A

.75HP, 1725RPM, 3PH, 60HZ, 56, 3420M, OPEN, F1

Class - None

Division - Not Applicable

**Specifications**

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Enclosure                      | OPEN                                                        |
| Frame                          | 56                                                          |
| Frame Material                 | Steel                                                       |
| Frequency                      | 60.00 Hz                                                    |
| Haz Area Class and Group       | None                                                        |
| Haz Area Division              | Not Applicable                                              |
| Motor Letter Type              | Three Phase                                                 |
| Output @ Frequency             | .750 HP @ 60 HZ                                             |
| Phase                          | 3                                                           |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                                            |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                          |
| Agency Approvals               | UR<br>CSA                                                   |
| Ambient Temperature            | 40 °C                                                       |
| Auxiliary Box                  | NO AUXILLARY BOX                                            |
| Auxiliary Box Lead Termination | None                                                        |
| Base Indicator                 | Rigid                                                       |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                     |
| Blower                         | None                                                        |
| Current @ Voltage              | 1.500 A @ 460.0 V<br>3.000 A @ 230.0 V<br>3.600 A @ 208.0 V |
| Design Code                    | B                                                           |
| Drip Cover                     | No Drip Cover                                               |
| Duty Rating                    | CONT                                                        |
| Efficiency @ 100% Load         | 74.0 %                                                      |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK                                                 |
| Front Face Code                | Standard                                                    |
| Front Shaft Indicator          | None                                                        |
| Heater Indicator               | No Heater                                                   |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | R          |
| Type         | AC         |
| Mech. spec.  | 34-1238    |
| Base         |            |
| Status       | INA/A      |
| Elec. spec.  | 34WG2100   |
| Layout       | 34LY1238   |
| Eff. date    | 03-08-2017 |
| CD Diagram   | CD0007     |
| Poles        | 04         |
| Leads        | 12#18      |
| Proprietary  | False      |
| Created date | 01-01-0001 |

|                               |                            |
|-------------------------------|----------------------------|
| High Voltage Full Load Amps   | 1.5 a                      |
| Insulation Class              | B                          |
| Inverter Code                 | Not Inverter               |
| KVA Code                      | K                          |
| Lifting Lugs                  | No Lifting Lugs            |
| Locked Bearing Indicator      | No Locked Bearing          |
| Motor Lead Exit               | Ko Box                     |
| Motor Lead Quantity/Wire Size | 12 @ 18 AWG                |
| Motor Lead Termination        | Flying Leads               |
| Motor Standards               | NEMA                       |
| Motor Type                    | 3420M                      |
| Mounting Arrangement          | F1                         |
| Number of Poles               | 4                          |
| Overall Length                | 11.25 IN                   |
| Power Factor                  | 60                         |
| Product Family                | General Purpose            |
| Pulley End Bearing Type       | Ball                       |
| Pulley Face Code              | Standard                   |
| Pulley Shaft Indicator        | Standard                   |
| Rodent Screen                 | None                       |
| Service Factor                | 1.25                       |
| Shaft Diameter                | 0.625 IN                   |
| Shaft Extension Location      | Pulley End                 |
| Shaft Ground Indicator        | No Shaft Grounding         |
| Shaft Rotation                | Reversible                 |
| Shaft Slinger Indicator       | No Slinger                 |
| Speed                         | 1725 rpm                   |
| Speed Code                    | Single Speed               |
| Starting Method               | Direct on line             |
| Thermal Device - Bearing      | None                       |
| Thermal Device - Winding      | None                       |
| Vibration Sensor Indicator    | No Vibration Sensor        |
| Winding Thermal 1             | Automatic Thermal Overload |
| Winding Thermal 1 Location    | SB                         |

**Winding Thermal 2**

**None**

---

**Nameplate**

| NP1257L      |              |  |      |  |      |     |    |   |    |  |   |
|--------------|--------------|--|------|--|------|-----|----|---|----|--|---|
| CAT.NO.      | M3112A       |  |      |  |      |     |    |   |    |  |   |
| SPEC.        | 34-1238-2100 |  |      |  |      |     |    |   |    |  |   |
| HP           | .75          |  |      |  |      |     |    |   |    |  |   |
| VOLTS        | 230/460      |  |      |  |      |     |    |   |    |  |   |
| AMP          | 3/1.5        |  |      |  |      |     |    |   |    |  |   |
| RPM          | 1725         |  |      |  |      |     |    |   |    |  |   |
| FRAME        | 56           |  |      |  | HZ   |     | 60 |   | PH |  | 3 |
| SER.F.       | 1.25         |  | CODE |  | K    | DES |    | B | CL |  | B |
| NEMA-NOM-EFF | 74           |  | PF   |  | 60   |     |    |   |    |  |   |
| RATING       | 40C AMB-CONT |  |      |  |      |     |    |   |    |  |   |
| CC           |              |  |      |  |      |     |    |   |    |  |   |
| DE           | 6203         |  | ODE  |  | 6203 |     |    |   |    |  |   |
| ENCL         | OPEN         |  | SN   |  |      |     |    |   |    |  |   |
|              | SFA 3.4/1.7  |  |      |  |      |     |    |   |    |  |   |

**AC Induction Motor Performance Data**

Record # 6636

Typical performance - not guaranteed values

| Winding: 34WG2100-R001 |    |              | Type: 3420M                              |                           | Enclosure: OPEN       |               |         |
|------------------------|----|--------------|------------------------------------------|---------------------------|-----------------------|---------------|---------|
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                           |                       |               |         |
| Rated Output (HP)      |    | .75          | Full Load Torque                         |                           | 2.25 LB-FT            |               |         |
| Volts                  |    | 230/460      | Start Configuration                      |                           | direct on line        |               |         |
| Full Load Amps         |    | 3/1.5        | Breakdown Torque                         |                           | 10 LB-FT              |               |         |
| R.P.M.                 |    | 1725         | Pull-up Torque                           |                           | 8.5 LB-FT             |               |         |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque       |                       | 8.8 LB-FT     |         |
| NEMA Design Code       |    | B            | KVA Code                                 | K                         | Starting Current      |               | 10 A    |
| Service Factor (S.F.)  |    | 1.25         |                                          | No-load Current           |                       | 1.2 A         |         |
| NEMA Nom. Eff.         |    | 74           | Power Factor                             | 60                        | Line-line Res. @ 25°C |               | 17.68 Ω |
| Rating - Duty          |    | 40C AMB-CONT |                                          | Temp. Rise @ Rated Load   |                       | 48°C          |         |
| S.F. Amps              |    | 3.4/1.7      |                                          | Temp. Rise @ S.F. Load    |                       | 59°C          |         |
|                        |    |              |                                          | Locked-rotor Power Factor |                       | 59            |         |
|                        |    |              |                                          | Rotor inertia             |                       | 0.0476 LB-FT2 |         |

**Load Characteristics 460 V, 60 Hz, 0.75 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 28   | 42   | 55   | 64   | 71   | 76   | 71   |
| Efficiency      | 56.1 | 69.7 | 74.7 | 76.2 | 76.1 | 75.2 | 76.1 |
| Speed           | 1783 | 1766 | 1749 | 1731 | 1711 | 1693 | 1711 |
| Line amperes    | 1.2  | 1.2  | 1.3  | 1.5  | 1.6  | 1.8  | 1.6  |

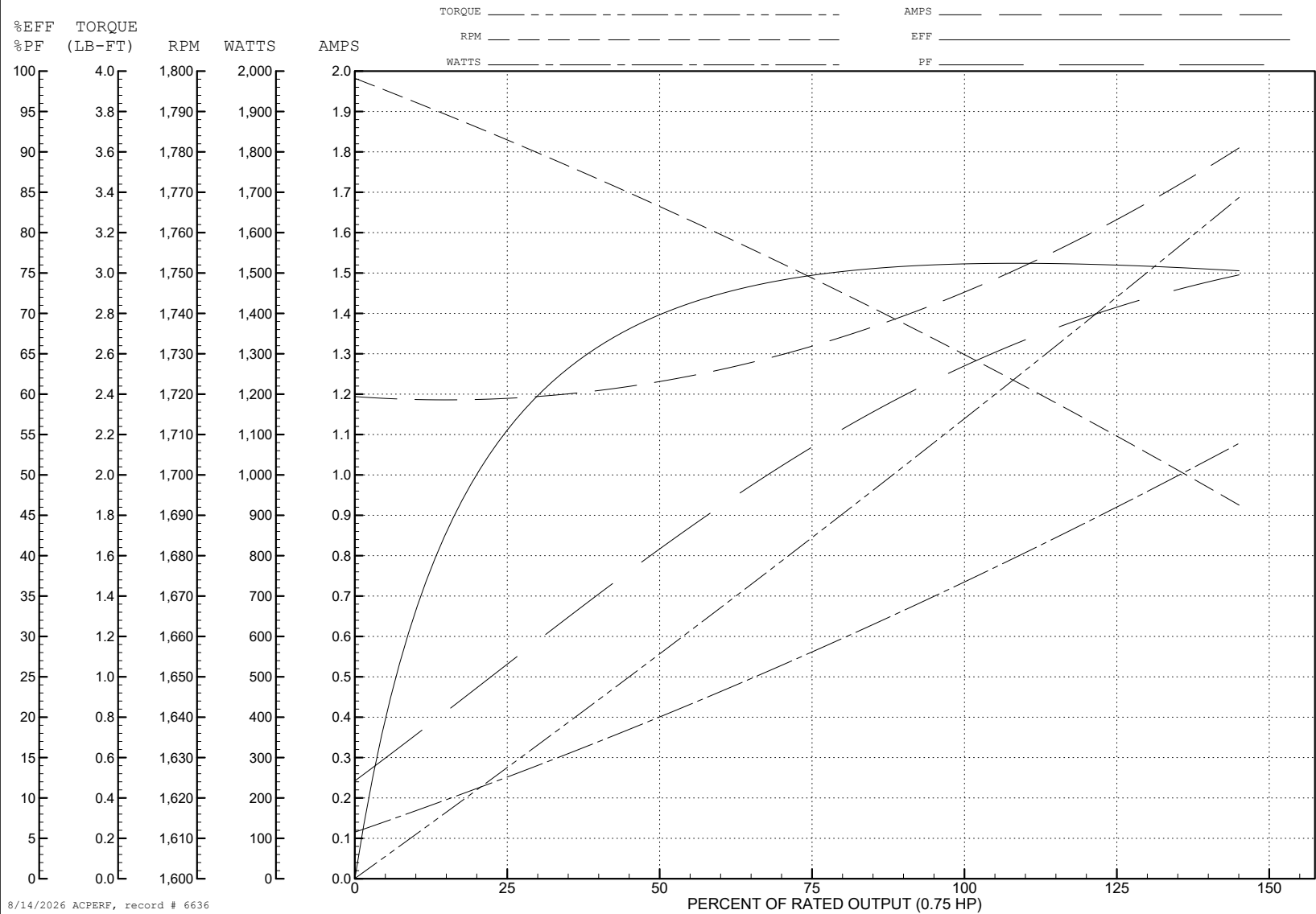
ABB Motors and Mechanical Inc.

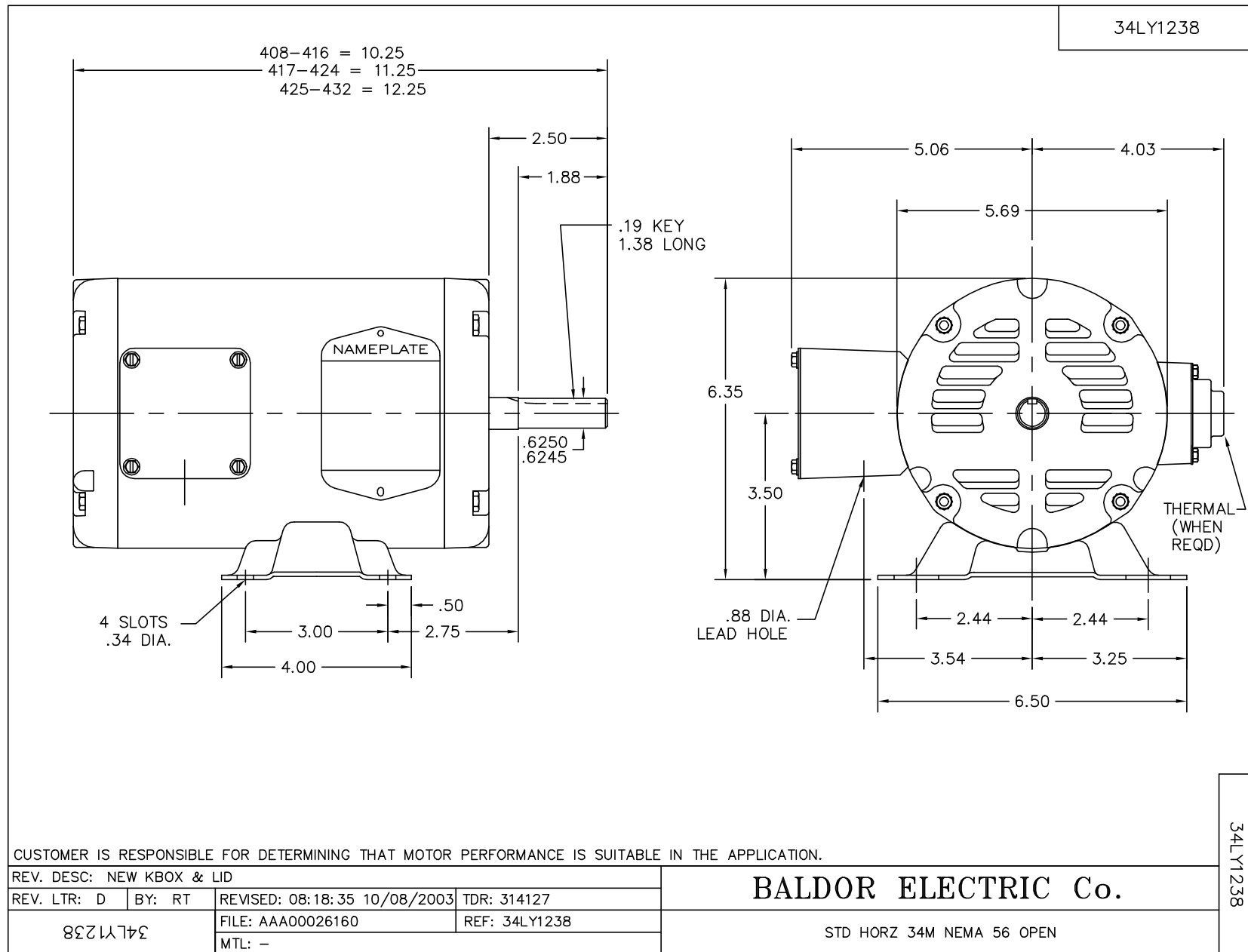
WINDING # 34WG2100

Typical performance - not guaranteed values.

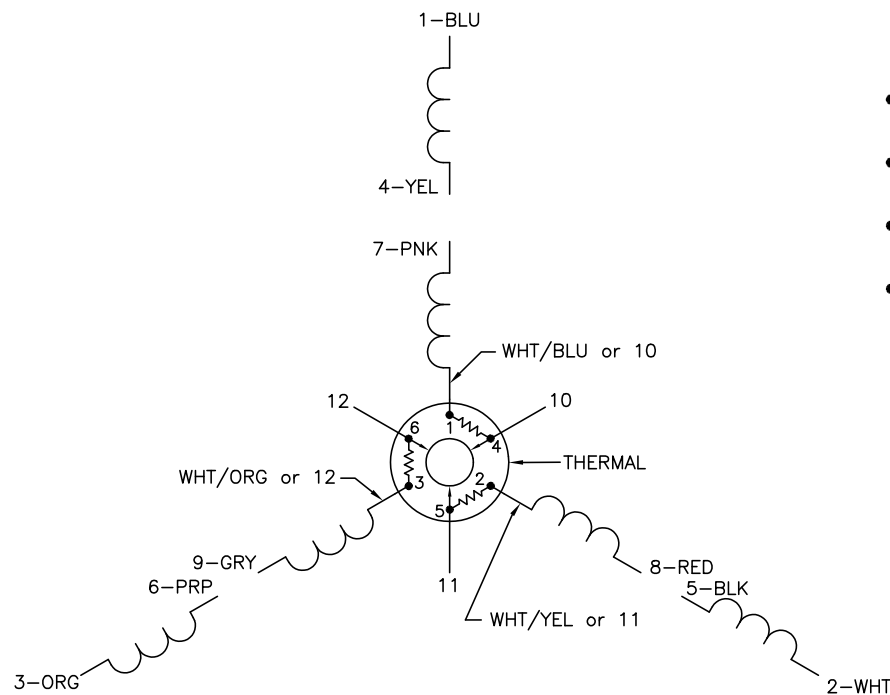
0.75 HP 3 PH 60 HZ 1725 RPM 460 V 3420M

TORQUES (LB-FT) : PO=10 PU=8.5 LR=8.8 LRA=10

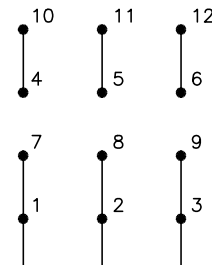




CD0007

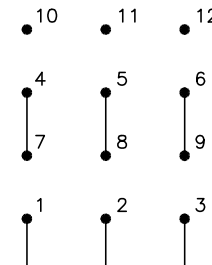


LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

**NOTES:**

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
3. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

REV. DESC: ADDED "CK" PLANT CODE

REV. LTR: E

BY: EAH

REVISED: 05/06/99 17:1

TDR: 0181040

200000

FILE: AAA00008370

MDL: -

MTL: -

**BALDOR ELECTRIC Co.**

3PH, DV, THERMAL, 12 LEADS

CD0007