

# ABB BALDOR RELIANCE III

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## Customer information packet

### M3454

.25HP, 1735RPM, 3PH, 60HZ, 48, 3410M, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                |                                                            |
|--------------------------------|------------------------------------------------------------|
| Enclosure                      | TEFC                                                       |
| Frame                          | 48                                                         |
| 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             | .250 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               | C UR US                                                    |
| 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              | .600 A @ 460.0 V<br>1.100 A @ 208.0 V<br>1.200 A @ 230.0 V |
| Design Code                    | B                                                          |
| Drip Cover                     | No Drip Cover                                              |
| Duty Rating                    | CONT                                                       |
| Efficiency @ 100% Load         | 62.0 %                                                     |
| Electrically Isolated Bearing  | Not Electrically Isolated                                  |
| Feedback Device                | NO FEEDBACK                                                |
| Front Shaft Indicator          | None                                                       |
| Heater Indicator               | No Heater                                                  |
| High Voltage Full Load Amps    | 0.6 a                                                      |
| Insulation Class               | B                                                          |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | C          |
| Type         | AC         |
| Mech. spec.  | 34A051     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 34WGR713   |
| Layout       | 34LYA051   |
| Eff. date    | 12-30-2024 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 11-20-2020 |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Inverter Code</b>                 | Not Inverter        |
| <b>KVA Code</b>                      | L                   |
| <b>Lifting Lugs</b>                  | No Lifting Lugs     |
| <b>Locked Bearing Indicator</b>      | No Locked Bearing   |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 18 AWG          |
| <b>Motor Lead Termination</b>        | Flying Leads        |
| <b>Motor Standards</b>               | NEMA                |
| <b>Motor Type</b>                    | 3410M               |
| <b>Mounting Arrangement</b>          | F1                  |
| <b>Number of Poles</b>               | 4                   |
| <b>Overall Length</b>                | 10.73 IN            |
| <b>Power Factor</b>                  | 63                  |
| <b>Product Family</b>                | General Purpose     |
| <b>Pulley End Bearing Type</b>       | Ball                |
| <b>Pulley Face Code</b>              | Standard            |
| <b>Pulley Shaft Indicator</b>        | Standard            |
| <b>Rodent Screen</b>                 | None                |
| <b>RoHS Status</b>                   | ROHS COMPLIANT      |
| <b>Service Factor</b>                | 1.35                |
| <b>Shaft Diameter</b>                | 0.500 IN            |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding  |
| <b>Shaft Rotation</b>                | Reversible          |
| <b>Shaft Slinger Indicator</b>       | No Slinger          |
| <b>Speed</b>                         | 1735 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                |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor |
| <b>Winding Thermal 1</b>             | None                |
| <b>Winding Thermal 2</b>             | None                |

**Nameplate**

| NP1256L      |                |      |     |    |      |   |       |  |   |
|--------------|----------------|------|-----|----|------|---|-------|--|---|
| CAT.NO.      | M3454          |      |     |    |      |   |       |  |   |
| SPEC.        | 34A051R713     |      |     |    |      |   |       |  |   |
| HP           | .25            |      |     |    |      |   |       |  |   |
| VOLTS        | 230/460        |      |     |    |      |   |       |  |   |
| AMP          | 1.2/.6         |      |     |    |      |   |       |  |   |
| RPM          | 1735           |      |     |    |      |   |       |  |   |
| FRAME        | 48             |      | HZ  |    | 60   |   | PH    |  | 3 |
| SER.F.       | 1.35           | CODE |     | L  | DES  | B | CLASS |  | B |
| NEMA-NOM-EFF | 62             | PF   |     | 63 |      |   |       |  |   |
| RATING       | 40C AMB-CONT   |      |     |    |      |   |       |  |   |
| CC           |                |      |     |    |      |   |       |  |   |
| DE           | 6203           |      | ODE |    | 6203 |   |       |  |   |
| ENCL         | TEFC           | SN   |     |    |      |   |       |  |   |
|              | SFA 1.32/0.66A |      |     |    |      |   |       |  |   |

**Accessories**

| Part number | Description | Multiplier |
|-------------|-------------|------------|
| 34-3900T    | C-FACE KIT  | A8         |

**AC Induction Motor Performance Data**

Record # 85600

Preliminary Data Sheet

| Winding: 34WGR713-R001 |    |           | Type: 3410M                              |                     | Enclosure: TEFC         |            |        |
|------------------------|----|-----------|------------------------------------------|---------------------|-------------------------|------------|--------|
| Nameplate Data         |    |           | 460 V, 60 Hz:<br>High Voltage Connection |                     |                         |            |        |
| Rated Output (HP)      |    | 0.25      | Full Load Torque                         |                     | 0.76 LB-FT              |            |        |
| Volts                  |    | 230/460   | Start Configuration                      |                     | direct on line          |            |        |
| Full Load Amps         |    | 1.2/0.6   | Breakdown Torque                         |                     | 2.77 LB-FT              |            |        |
| R.P.M.                 |    | 1735      | Pull-up Torque                           |                     | 1.83 LB-FT              |            |        |
| Hz                     | 60 | Phase     | 3                                        | Locked-rotor Torque |                         | 2.03 LB-FT |        |
| NEMA Design Code       |    | B         | KVA Code                                 | L                   | Starting Current        |            | 2.89 A |
| Service Factor (S.F.)  |    | 1.35      | No-load Current                          |                     | 0.545 A                 |            |        |
| NEMA Nom. Eff.         |    | 63.4      | Power Factor                             | 63                  | Line-line Res. @ 25°C   |            | 98.9 Ω |
| Rating - Duty          |    | 40C       | AMB-CONT                                 |                     | Temp. Rise @ Rated Load |            | 57°C   |
| S.F. Amps              |    | 1.32/0.66 | Temp. Rise @ S.F. Load                   |                     | 70°C                    |            |        |
|                        |    |           | Locked-rotor Power Factor                |                     | 84.1                    |            |        |
|                        |    |           | Rotor inertia                            |                     | 0.0238 lb-ft²           |            |        |

**Load Characteristics 460 V, 60 Hz, 0.25 HP**

| % of Rated Load | 25    | 50    | 75    | 100   | 125  | 150   | S.F.  |
|-----------------|-------|-------|-------|-------|------|-------|-------|
| Power Factor    | 33    | 43    | 54    | 63    | 71   | 78    | 75    |
| Efficiency      | 34.9  | 50.2  | 58.6  | 63.4  | 65.6 | 66.1  | 65.8  |
| Speed           | 1781  | 1767  | 1751  | 1733  | 1713 | 1690  | 1697  |
| Line amperes    | 0.547 | 0.552 | 0.568 | 0.598 | 0.64 | 0.695 | 0.662 |

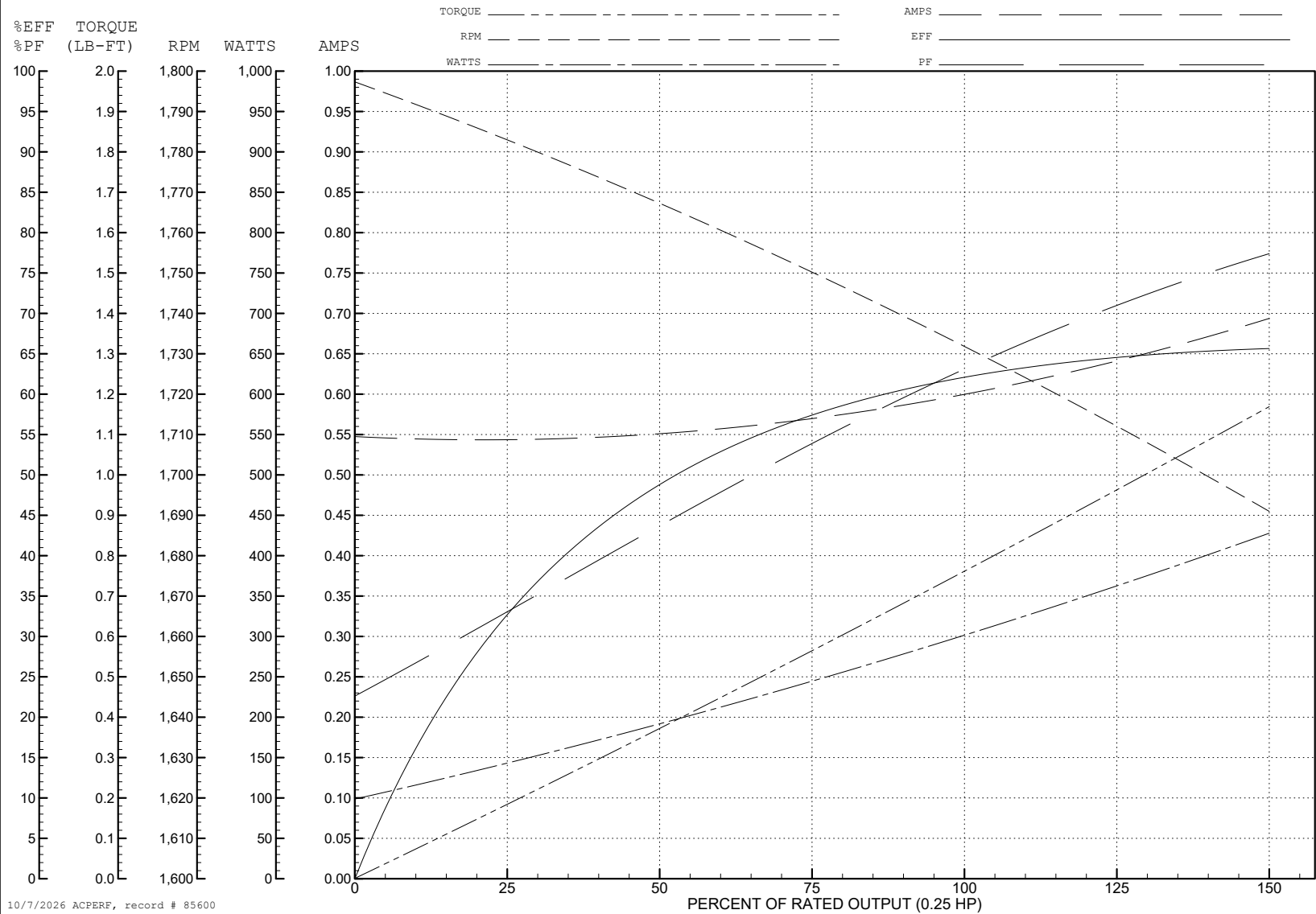
ABB Motors and Mechanical Inc.

WINDING # 34WGR713

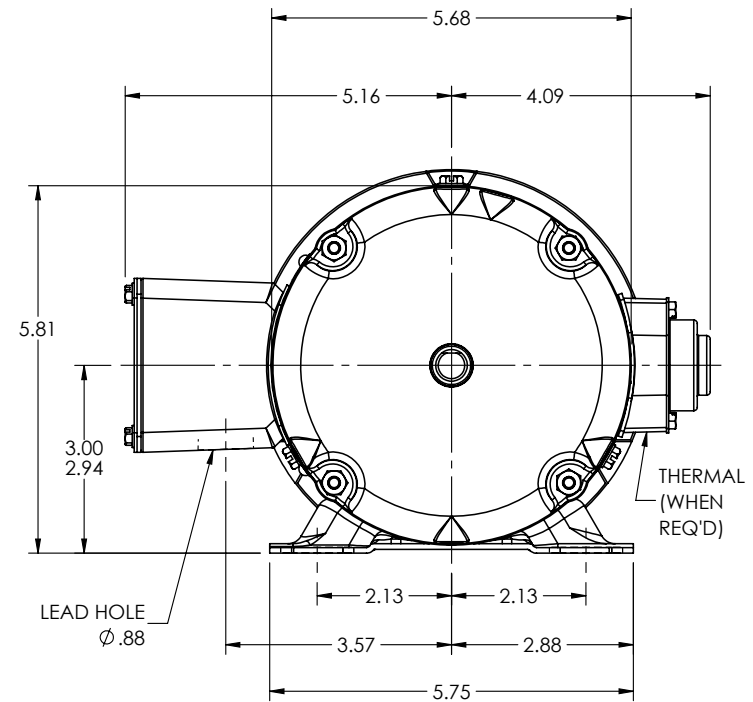
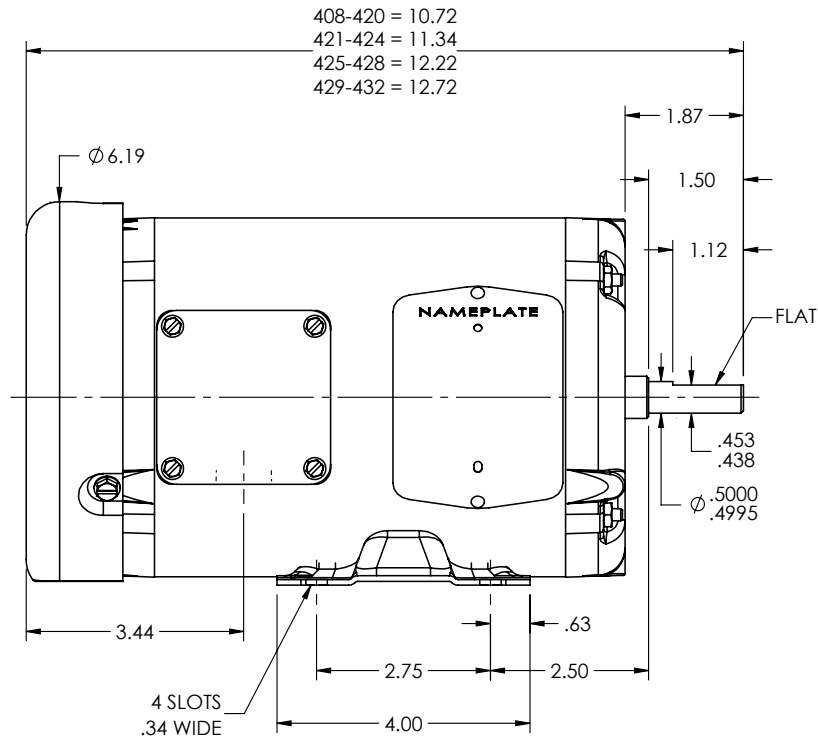
Typical performance - not guaranteed values.

0.25 HP 3 PH 60 HZ 1735 RPM 460 V 3410M

TORQUES (LB-FT) : PO=2.77 PU=1.83 LR=2.03 LRA=2.89



34LYA051



CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

REV. DESC: UPDATE DIMENSION GRAPHICS

REV: P

VERSION: 07

REVISED: 03:05:58 11/26/2024

TDR: 000001245356

34LYA051

MODEL NO. 34LYA051

BY: ENJEFD0

REF: -

**BALDOR - RELIANCE®**

STD HORZ 34M NEMA 48 TEFC

34LYA051

