

# ABB BALDOR RELIANCE III

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## Customer information packet

### ERM3003

.25HP, 1725RPM, 3PH, 60HZ, 48, 3413M, OPEN, F1

Class - None

Division - Not Applicable

**Specifications**

|                                |                                                            |
|--------------------------------|------------------------------------------------------------|
| Enclosure                      | OPEN                                                       |
| 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               | UR<br>CSA                                                  |
| Ambient Temperature            | 40 °C                                                      |
| Auxiliary Box                  | NO AUXILLARY BOX                                           |
| Auxiliary Box Lead Termination | None                                                       |
| Base Indicator                 | Resilient                                                  |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                    |
| Blower                         | None                                                       |
| Current @ Voltage              | .500 A @ 460.0 V<br>1.000 A @ 230.0 V<br>1.300 A @ 208.0 V |
| Design Code                    | B                                                          |
| Drip Cover                     | No Drip Cover                                              |
| Duty Rating                    | CONT                                                       |
| Efficiency @ 100% Load         | 69.5 %                                                     |
| Electrically Isolated Bearing  | Not Electrically Isolated                                  |
| Feedback Device                | NO FEEDBACK                                                |
| Front Face Code                | Resilient Mount                                            |
| Front Shaft Indicator          | None                                                       |
| Heater Indicator               | No Heater                                                  |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | K          |
| Type         | AC         |
| Mech. spec.  | 34K015     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 34WGR137   |
| Layout       | 34LYK015   |
| Eff. date    | 10-29-2024 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 10-06-2014 |

|                               |                             |
|-------------------------------|-----------------------------|
| High Voltage Full Load Amps   | 0.5 a                       |
| Insulation Class              | B                           |
| Inverter Code                 | Not Inverter                |
| KVA Code                      | M                           |
| Lifting Lugs                  | No Lifting Lugs             |
| Locked Bearing Indicator      | No Locked Bearing           |
| Motor Lead Exit               | Terminal Panel Or Lead Hole |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG                  |
| Motor Lead Termination        | Flying Leads                |
| Motor Standards               | NEMA                        |
| Motor Type                    | 3413M                       |
| Mounting Arrangement          | F1                          |
| Number of Poles               | 4                           |
| Overall Length                | 10.34 IN                    |
| Power Factor                  | 62                          |
| Product Family                | General Purpose             |
| Pulley End Bearing Type       | Ball                        |
| Pulley Face Code              | Resilient Mount             |
| Pulley Shaft Indicator        | Standard                    |
| Rodent Screen                 | None                        |
| RoHS Status                   | ROHS COMPLIANT              |
| Service Factor                | 1.35                        |
| Shaft Diameter                | 0.500 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             | None                        |

Winding Thermal 2

None

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**Nameplate**

| NP3155L        |              |  |      |      |     |   |  |    |   |  |  |
|----------------|--------------|--|------|------|-----|---|--|----|---|--|--|
| CAT.NO.        | ERM3003      |  |      |      |     |   |  |    |   |  |  |
| SPEC.          | 34K015R137G1 |  |      |      |     |   |  |    |   |  |  |
| HP             | .25          |  |      |      |     |   |  |    |   |  |  |
| VOLTS          | 230/460      |  |      |      |     |   |  |    |   |  |  |
| AMP            | 1/.5         |  |      |      |     |   |  |    |   |  |  |
| RPM            | 1725         |  |      |      |     |   |  |    |   |  |  |
| FRAME          | 48           |  | HZ   | 60   |     |   |  | PH | 3 |  |  |
| SER.F.         | 1.35         |  | CODE | M    | DES | B |  | CL | B |  |  |
| F.L. AVG. EFF. | 69.5         |  | PF   | 62   |     |   |  |    |   |  |  |
| RATING         | 40C AMB-CONT |  |      |      |     |   |  |    |   |  |  |
| CC             |              |  |      |      |     |   |  |    |   |  |  |
| DE             | 6203         |  | ODE  | 6203 |     |   |  |    |   |  |  |
| ENCL           | OPEN         |  | SN   |      |     |   |  |    |   |  |  |
|                | SFA 1.2/.6   |  |      |      |     |   |  |    |   |  |  |

**AC Induction Motor Performance Data**

Record # 47473

Typical performance - not guaranteed values

| Winding: 34WGR137-R002 |    |              | Type: 3413M                              |                           | Enclosure: OPEN |              |
|------------------------|----|--------------|------------------------------------------|---------------------------|-----------------|--------------|
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                           |                 |              |
| Rated Output (HP)      |    | .25          | Full Load Torque                         |                           | 0.76 LB-FT      |              |
| Volts                  |    | 230/460      | Start Configuration                      |                           | direct on line  |              |
| Full Load Amps         |    | 1/.5         | Breakdown Torque                         |                           | 3.28 LB-FT      |              |
| R.P.M.                 |    | 1725         | Pull-up Torque                           |                           | 2.41 LB-FT      |              |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque       |                 | 1.91 LB-FT   |
| NEMA Design Code       |    | B            | KVA Code                                 | Starting Current          |                 | 3.43 A       |
| Service Factor (S.F.)  |    | 1.35         | No-load Current                          |                           | 0.395 A         |              |
| NEMA Nom. Eff.         |    | 69.5         | Power Factor                             | Line-line Res. @ 25°C     |                 | 60.8 Ω       |
| Rating - Duty          |    | 40C AMB-CONT |                                          | Temp. Rise @ Rated Load   |                 | 16°C         |
| S.F. Amps              |    | 1.2/.6       |                                          | Temp. Rise @ S.F. Load    |                 | 20°C         |
|                        |    |              |                                          | Locked-rotor Power Factor |                 | 62.5478      |
|                        |    |              |                                          | Rotor inertia             |                 | 0.031 lb-ft² |

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

| % of Rated Load | 25    | 50    | 75    | 100   | 125   | 150  | S.F.  |
|-----------------|-------|-------|-------|-------|-------|------|-------|
| Power Factor    | 28    | 41    | 53    | 62    | 69    | 74   | 71    |
| Efficiency      | 52.2  | 65.8  | 72.5  | 74    | 74.8  | 74.2 | 74.6  |
| Speed           | 1783  | 1771  | 1757  | 1742  | 1726  | 1707 | 1718  |
| Line amperes    | 0.405 | 0.428 | 0.467 | 0.514 | 0.568 | 0.64 | 0.597 |

ABB Motors and Mechanical Inc.

WINDING # 34WGR137

Typical performance - not guaranteed values.

0.25 HP 3 PH 60 HZ 1725 RPM 460 V 3413M

TORQUES (LB-FT) : PO=3.28 PU=2.41 LR=1.91 LRA=3.43





