

# ABB BALDOR RELIANCE III

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## Customer information packet

### RM3010

.5HP, 1725RPM, 3PH, 60HZ, 48, 3416M, OPEN, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | OPEN                                                        |
| <b>Frame</b>                          | 48                                                          |
| <b>Frame Material</b>                 | Steel                                                       |
| <b>Frequency</b>                      | 60.00 Hz                                                    |
| <b>Haz Area Class and Group</b>       | None                                                        |
| <b>Haz Area Division</b>              | Not Applicable                                              |
| <b>Motor Letter Type</b>              | Three Phase                                                 |
| <b>Output @ Frequency</b>             | .500 HP @ 60 HZ                                             |
| <b>Phase</b>                          | 3                                                           |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                            |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                          |
| <b>Agency Approvals</b>               | CSA<br>UR                                                   |
| <b>Ambient Temperature</b>            | 40 °C                                                       |
| <b>Auxiliary Box</b>                  | NO AUXILLARY BOX                                            |
| <b>Auxiliary Box Lead Termination</b> | None                                                        |
| <b>Base Indicator</b>                 | Resilient                                                   |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                     |
| <b>Blower</b>                         | None                                                        |
| <b>Current @ Voltage</b>              | 2.500 A @ 208.0 V<br>2.000 A @ 230.0 V<br>1.000 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>         | 74.0 %                                                      |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                   |
| <b>Feedback Device</b>                | NO FEEDBACK                                                 |
| <b>Front Face Code</b>                | Resilient Mount                                             |
| <b>Front Shaft Indicator</b>          | None                                                        |
| <b>Heater Indicator</b>               | No Heater                                                   |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | P          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 34K015     |
| <b>Base</b>         |            |
| <b>Status</b>       | NLA/A      |
| <b>Elec. spec.</b>  | 34WG0872   |
| <b>Layout</b>       | 34LYK015   |
| <b>Eff. date</b>    | 01-23-2015 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 01-01-0001 |

|                               |                             |
|-------------------------------|-----------------------------|
| High Voltage Full Load Amps   | 1.0 a                       |
| Insulation Class              | B                           |
| Inverter Code                 | Not Inverter                |
| KVA Code                      | L                           |
| 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                    | 3416M                       |
| Mounting Arrangement          | F1                          |
| Number of Poles               | 4                           |
| Overall Length                | 10.34 IN                    |
| Power Factor                  | 63                          |
| 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                | 1.25                        |
| 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                        |

**Nameplate**

| NP1256L      |              |  |      |     |    |      |  |   |       |  |   |
|--------------|--------------|--|------|-----|----|------|--|---|-------|--|---|
| CAT.NO.      | RM3010       |  |      |     |    |      |  |   |       |  |   |
| SPEC.        | 34K15-872    |  |      |     |    |      |  |   |       |  |   |
| HP           | .5           |  |      |     |    |      |  |   |       |  |   |
| VOLTS        | 230/460      |  |      |     |    |      |  |   |       |  |   |
| AMP          | 2/1          |  |      |     |    |      |  |   |       |  |   |
| RPM          | 1725         |  |      |     |    |      |  |   |       |  |   |
| FRAME        | 48           |  |      | HZ  |    | 60   |  |   | PH    |  | 3 |
| SER.F.       | 1.25         |  | CODE |     | L  | DES  |  | B | CLASS |  | B |
| NEMA-NOM-EFF | 74           |  | PF   |     | 63 |      |  |   |       |  |   |
| RATING       | 40C AMB-CONT |  |      |     |    |      |  |   |       |  |   |
| CC           |              |  |      |     |    |      |  |   |       |  |   |
| DE           | 6203         |  |      | ODE |    | 6203 |  |   |       |  |   |
| ENCL         | OPEN         |  | SN   |     |    |      |  |   |       |  |   |
|              | SFA 2.4/1.2  |  |      |     |    |      |  |   |       |  |   |

**AC Induction Motor Performance Data**

Record # 6598

Typical performance - not guaranteed values

| Winding: 34WG0872-R001 |    |         | Type: 3416M                              |                     | Enclosure: TEFC         |           |      |
|------------------------|----|---------|------------------------------------------|---------------------|-------------------------|-----------|------|
| Nameplate Data         |    |         | 460 V, 60 Hz:<br>High Voltage Connection |                     |                         |           |      |
| Rated Output (HP)      |    | .5      | Full Load Torque                         |                     | 1.5 LB-FT               |           |      |
| Volts                  |    | 230/460 | Start Configuration                      |                     | direct on line          |           |      |
| Full Load Amps         |    | 2/1     | Breakdown Torque                         |                     | 7 LB-FT                 |           |      |
| R.P.M.                 |    | 1725    | Pull-up Torque                           |                     | 4.5 LB-FT               |           |      |
| Hz                     | 60 | Phase   | 3                                        | Locked-rotor Torque |                         | 5.3 LB-FT |      |
| NEMA Design Code       |    | B       | KVA Code                                 |                     | L                       |           |      |
| Service Factor (S.F.)  |    | 1.25    | No-load Current                          |                     | 0.8 A                   |           |      |
| NEMA Nom. Eff.         |    | 74      | Power Factor                             |                     | 63                      |           |      |
| Rating - Duty          |    | 40C     | AMB-CONT                                 |                     | Temp. Rise @ Rated Load |           | 65°C |
| S.F. Amps              |    | 2.4/1.2 | Temp. Rise @ S.F. Load                   |                     | 77°C                    |           |      |
|                        |    |         | Locked-rotor Power Factor                |                     | 66                      |           |      |
|                        |    |         | Rotor inertia                            |                     | 0.0381 LB-FT2           |           |      |

**Load Characteristics 460 V, 60 Hz, 0.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 30   | 43   | 55   | 63   | 69   | 75   | 0    |
| Efficiency      | 53.2 | 66.4 | 72.5 | 74.6 | 75.3 | 75.1 | 0    |
| Speed           | 1782 | 1769 | 1754 | 1739 | 1724 | 1706 | 0    |
| Line amperes    | 0.8  | 0.85 | 0.92 | 1.03 | 1.15 | 1.25 | 1.15 |

ABB Motors and Mechanical Inc.

WINDING # 34WG0872

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 1725 RPM 460 V 3416M

TORQUES (LB-FT) : PO=7 PU=4.5 LR=5.3 LRA=6.5





