

# ABB BALDOR RELIANCE III

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## Customer information packet

### EM31154

1.5HP, 1770RPM, 3PH, 60HZ, 56, 3524M, OPEN, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | OPEN                                                        |
| <b>Frame</b>                          | 56                                                          |
| <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>             | 1.500 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>               | CURUSEEV                                                    |
| <b>Ambient Temperature</b>            | 40 °C                                                       |
| <b>Auxiliary Box</b>                  | NO AUXILLARY BOX                                            |
| <b>Auxiliary Box Lead Termination</b> | None                                                        |
| <b>Base Indicator</b>                 | Rigid                                                       |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                     |
| <b>Blower</b>                         | None                                                        |
| <b>Current @ Voltage</b>              | 2.300 A @ 460.0 V<br>4.600 A @ 230.0 V<br>4.640 A @ 208.0 V |
| <b>Design Code</b>                    | B                                                           |
| <b>Drip Cover</b>                     | No Drip Cover                                               |
| <b>Duty Rating</b>                    | CONT                                                        |
| <b>Efficiency @ 100% Load</b>         | 86.5 %                                                      |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                   |
| <b>Feedback Device</b>                | NO FEEDBACK                                                 |
| <b>Front Shaft Indicator</b>          | None                                                        |
| <b>Heater Indicator</b>               | No Heater                                                   |
| <b>High Voltage Full Load Amps</b>    | 2.3 a                                                       |
| <b>Insulation Class</b>               | F                                                           |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | H          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35B011     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGL955   |
| <b>Layout</b>       | 35LYB011   |
| <b>Eff. date</b>    | 01-05-2026 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 01-10-2022 |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Inverter Code</b>                 | Inverter Ready      |
| <b>IP Rating</b>                     | NONE                |
| <b>KVA Code</b>                      | M                   |
| <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>                    | 3524M               |
| <b>Mounting Arrangement</b>          | F1                  |
| <b>Number of Poles</b>               | 4                   |
| <b>Overall Length</b>                | 12.07 IN            |
| <b>Power Factor</b>                  | 72                  |
| <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>Service Factor</b>                | 1.15                |
| <b>Shaft Diameter</b>                | 0.625 IN            |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding  |
| <b>Shaft Rotation</b>                | Reversible          |
| <b>Shaft Slinger Indicator</b>       | No Slinger          |
| <b>Speed</b>                         | 1770 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

| NP3155LUA      |                              |  |      |      |     |   |  |       |   |       |  |
|----------------|------------------------------|--|------|------|-----|---|--|-------|---|-------|--|
| CAT.NO.        | EM31154                      |  |      |      |     |   |  |       |   |       |  |
| SPEC.          | 35B011L955G1                 |  |      |      |     |   |  |       |   |       |  |
| HP             | 1.5                          |  |      |      |     |   |  |       |   |       |  |
| VOLTS          | 230/460                      |  |      |      |     |   |  |       |   |       |  |
| AMPS           | 4.6/2.3                      |  |      |      |     |   |  |       |   |       |  |
| RPM            | 1770                         |  |      |      |     |   |  |       |   |       |  |
| FRAME          | 56                           |  | HZ   | 60   |     |   |  | PH    | 3 |       |  |
| SF             | 1.15                         |  | CODE | M    | DES | B |  | CLASS | F |       |  |
| F.L. AVG. EFF. | 86.5                         |  | PF   | 72   |     |   |  |       |   |       |  |
| RATING         | 40C AMB-CONT                 |  |      |      |     |   |  |       |   |       |  |
| CC             |                              |  |      |      |     |   |  |       |   |       |  |
| DE             | 6205                         |  | ODE  | 6203 |     |   |  |       |   |       |  |
| ENCL           | OPEN                         |  | SN   |      |     |   |  |       |   |       |  |
| USABLE AT      | 1.5HP 190/380V 50HZ 5.2/2.6A |  |      |      |     |   |  |       |   | SF1.0 |  |

**AC Induction Motor Performance Data**

Record # 95388

Typical performance - not guaranteed values

| Winding: 35WGL955-R002 |    |         | Type: 3524M                              |                     | Enclosure: OPEN         |            |        |
|------------------------|----|---------|------------------------------------------|---------------------|-------------------------|------------|--------|
| Nameplate Data         |    |         | 460 V, 60 Hz:<br>High Voltage Connection |                     |                         |            |        |
| Rated Output (HP)      |    | 1.5     | Full Load Torque                         |                     | 4.48 LB-FT              |            |        |
| Volts                  |    | 230/460 | Start Configuration                      |                     | direct on line          |            |        |
| Full Load Amps         |    | 4.6/2.3 | Breakdown Torque                         |                     | 18.8 LB-FT              |            |        |
| R.P.M.                 |    | 1770    | Pull-up Torque                           |                     | 9.6 LB-FT               |            |        |
| Hz                     | 60 | Phase   | 3                                        | Locked-rotor Torque |                         | 12.6 LB-FT |        |
| NEMA Design Code       |    | B       | KVA Code                                 | M                   | Starting Current        |            | 19.7 A |
| Service Factor (S.F.)  |    | 1.15    | No-load Current                          |                     | 1.51 A                  |            |        |
| NEMA Nom. Eff.         |    | 86.5    | Power Factor                             | 72                  | Line-line Res. @ 25°C   |            | 11.8 Ω |
| Rating - Duty          |    | 40C     | AMB-CONT                                 |                     | Temp. Rise @ Rated Load |            | 48°C   |
| S.F. Amps              |    | 5/2.5   | Temp. Rise @ S.F. Load                   |                     | 57°C                    |            |        |
|                        |    |         | Locked-rotor Power Factor                |                     | 58.4                    |            |        |
|                        |    |         | Rotor inertia                            |                     | 0.173 lb-ft²            |            |        |

**Load Characteristics 460 V, 60 Hz, 1.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 31   | 49   | 63   | 72   | 78   | 81   | 76   |
| Efficiency      | 75.1 | 83.5 | 86   | 86.5 | 85.8 | 84.8 | 86.1 |
| Speed           | 1792 | 1785 | 1777 | 1769 | 1760 | 1750 | 1764 |
| Line amperes    | 1.56 | 1.72 | 1.97 | 2.28 | 2.65 | 3.06 | 2.5  |

ABB Motors and Mechanical Inc.

WINDING # 35WGL955

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 1770 RPM 460 V 3524M

TORQUES (LB-FT): PO=18.8 PU=9.6 LR=12.6 LRA=19.7





