

# ABB BALDOR RELIANCE III

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## Customer information packet

### VSSWDM3534

.33HP, 1780RPM, 3PH, 60HZ, 56C, 3512M, TENV, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                            |
|---------------------------------------|------------------------------------------------------------|
| <b>Enclosure</b>                      | TENV                                                       |
| <b>Frame</b>                          | 56C                                                        |
| <b>Frame Material</b>                 | Stainless 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>             | .330 HP @ 60 HZ                                            |
| <b>Phase</b>                          | 3                                                          |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                           |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ<br>208.0 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>                 | No Mounting                                                |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                    |
| <b>Blower</b>                         | None                                                       |
| <b>Current @ Voltage</b>              | 1.700 A @ 230.0 V<br>1.500 A @ 208.0 V<br>.850 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>         | 75.5 %                                                     |
| <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                                                  |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | D          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35V824     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGG155   |
| <b>Layout</b>       | 35LYV824   |
| <b>Eff. date</b>    | 02-19-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 07-05-2022 |

|                               |                               |
|-------------------------------|-------------------------------|
| High Voltage Full Load Amps   | 0.9 a                         |
| Insulation Class              | F                             |
| Inverter Code                 | Not Inverter                  |
| KVA Code                      | S                             |
| Lifting Lugs                  | No Lifting Lugs               |
| Locked Bearing Indicator      | Locked Bearing                |
| Motor Finish                  | UNPAINTED                     |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG                    |
| Motor Lead Termination        | Flying Leads                  |
| Motor Standards               | NEMA                          |
| Motor Type                    | 3512M                         |
| Mounting Arrangement          | F1                            |
| Number of Poles               | 4                             |
| Overall Length                | 11.08 IN                      |
| Power Factor                  | 49                            |
| Product Family                | Wash Down All Stainless Steel |
| Pulley End Bearing Type       | Ball                          |
| Pulley Face Code              | C-Face                        |
| Pulley Shaft Indicator        | Standard                      |
| Rodent Screen                 | None                          |
| Service Factor                | 1.25                          |
| Shaft Diameter                | 0.625 IN                      |
| Shaft Ground Indicator        | No Shaft Grounding            |
| Shaft Rotation                | Reversible                    |
| Shaft Slinger Indicator       | No Slinger                    |
| Speed                         | 1780 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                          |

**Nameplate**

| NP1951A01    |                |  |      |     |   |      |  |    |       |   |   |
|--------------|----------------|--|------|-----|---|------|--|----|-------|---|---|
| CAT.NO.      | VSSWDM3534     |  |      |     |   |      |  |    |       |   |   |
| SPEC.        | 35V824G155G2   |  |      |     |   |      |  |    |       |   |   |
| HP           | .33            |  |      |     |   |      |  |    |       |   |   |
| VOLTS        | 208-230/460    |  |      |     |   |      |  |    |       |   |   |
| AMP          | 1.5-1.7/.85    |  |      |     |   |      |  |    |       |   |   |
| RPM          | 1780           |  |      |     |   |      |  |    |       |   |   |
| FRAME        | 56C            |  |      | HZ  |   | 60   |  | PH |       | 3 |   |
| SER.F.       | 1.25           |  | CODE |     | S | DES  |  | B  | CLASS |   | F |
| NEMA-NOM-EFF | 75.5           |  |      | PF  |   | 49   |  |    |       |   |   |
| RATING       | 40C AMB-CONT   |  |      |     |   |      |  |    |       |   |   |
| CC           |                |  |      |     |   |      |  |    |       |   |   |
| DE           | 6205           |  |      | ODE |   | 6203 |  |    |       |   |   |
| ENCL         | TENV           |  | SN   |     |   |      |  |    |       |   |   |
|              | SFA 1.9-1.8/.9 |  |      |     |   |      |  |    |       |   |   |
|              | 20:1CT 20:1VT  |  |      |     |   |      |  |    |       |   |   |

**AC Induction Motor Performance Data**

Record # 82222

Typical performance - not guaranteed values

| Winding: 35WGG155-R015 |    |             | Type: 3512M                              |                     | Enclosure: TENV         |            |        |
|------------------------|----|-------------|------------------------------------------|---------------------|-------------------------|------------|--------|
| Nameplate Data         |    |             | 460 V, 60 Hz:<br>High Voltage Connection |                     |                         |            |        |
| Rated Output (HP)      |    | .33         | Full Load Torque                         |                     | 0.977 LB-FT             |            |        |
| Volts                  |    | 208-230/460 | Start Configuration                      |                     | direct on line          |            |        |
| Full Load Amps         |    | 1.5-1.7/.85 | Breakdown Torque                         |                     | 6.28 LB-FT              |            |        |
| R.P.M.                 |    | 1780        | Pull-up Torque                           |                     | 3.26 LB-FT              |            |        |
| Hz                     | 60 | Phase       | 3                                        | Locked-rotor Torque |                         | 4.04 LB-FT |        |
| NEMA Design Code       |    | B           | KVA Code                                 | S                   | Starting Current        |            | 6.71 A |
| Service Factor (S.F.)  |    | 1.25        | No-load Current                          |                     | 0.792 A                 |            |        |
| NEMA Nom. Eff.         |    | 75.5        | Power Factor                             | 49                  | Line-line Res. @ 25°C   |            | 43.2 Ω |
| Rating - Duty          |    | 40C         | AMB-CONT                                 |                     | Temp. Rise @ Rated Load |            | 49°C   |
| S.F. Amps              |    | 1.9-1.8/.9  | Temp. Rise @ S.F. Load                   |                     | 53°C                    |            |        |
|                        |    |             | Locked-rotor Power Factor                |                     | 70.8                    |            |        |
|                        |    |             | Rotor inertia                            |                     | 0.0866 lb-ft²           |            |        |

**Load Characteristics 460 V, 60 Hz, 0.33 HP**

| % of Rated Load | 25    | 50    | 75    | 100   | 125   | 150   | S.F.  |
|-----------------|-------|-------|-------|-------|-------|-------|-------|
| Power Factor    | 22    | 31    | 41    | 49    | 57    | 63    | 57    |
| Efficiency      | 47.4  | 63.1  | 70.8  | 75.1  | 77.6  | 79.1  | 77.6  |
| Speed           | 1794  | 1789  | 1785  | 1780  | 1774  | 1769  | 1774  |
| Line amperes    | 0.786 | 0.791 | 0.814 | 0.839 | 0.878 | 0.933 | 0.878 |

ABB Motors and Mechanical Inc.

WINDING # 35WGG155

Typical performance - not guaranteed values.

0.33 HP 3 PH 60 HZ 1780 RPM 460 V 3512M

TORQUES (LB-FT) : PO=6.28 PU=3.26 LR=4.04 LRA=6.71





