

# ABB BALDOR RELIANCE III

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## Customer information packet

### VSPM31109

.5HP, 1140RPM, 3PH, 60HZ, 56C, 3436M, ODP, F1, N

Class - None

Division - Not Applicable

**Specifications**

|                                |                                        |
|--------------------------------|----------------------------------------|
| Enclosure                      | ODP                                    |
| Frame                          | 56C                                    |
| 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             | .500 HP @ 60 HZ                        |
| Phase                          | 3                                      |
| Synchronous Speed @ Frequency  | 1200 RPM @ 60 HZ                       |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ     |
| Agency Approvals               | WEEE<br>C UR US                        |
| Ambient Temperature            | 40 °C                                  |
| Auxiliary Box                  | NO AUXILLARY BOX                       |
| Auxiliary Box Lead Termination | None                                   |
| Base Indicator                 | No Mounting                            |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                |
| Blower                         | None                                   |
| Current @ Voltage              | 1.000 A @ 460.0 V<br>2.000 A @ 230.0 V |
| Design Code                    | B                                      |
| Drip Cover                     | No Drip Cover                          |
| Duty Rating                    | CONT                                   |
| Efficiency @ 100% Load         | 78.5 %                                 |
| Electrically Isolated Bearing  | Not Electrically Isolated              |
| Feedback Device                | NO FEEDBACK                            |
| Front Shaft Indicator          | None                                   |
| Heater Indicator               | No Heater                              |
| High Voltage Full Load Amps    | 1.0 a                                  |
| Insulation Class               | F                                      |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | B          |
| Type         | AC         |
| Mech. spec.  | 34B063     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 34WGR776   |
| Layout       | 34LYB063   |
| Eff. date    | 12-30-2024 |
| CD Diagram   | CD0005     |
| Poles        | 06         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 03-06-2024 |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Inverter Code</b>                 | Not Inverter        |
| <b>KVA Code</b>                      | K                   |
| <b>Lifting Lugs</b>                  | No Lifting Lugs     |
| <b>Locked Bearing Indicator</b>      | 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>                    | 3436M               |
| <b>Mounting Arrangement</b>          | F1                  |
| <b>Number of Poles</b>               | 6                   |
| <b>Overall Length</b>                | 12.63 IN            |
| <b>Power Factor</b>                  | 61                  |
| <b>Product Family</b>                | General Purpose     |
| <b>Pulley End Bearing Type</b>       | Ball                |
| <b>Pulley Face Code</b>              | C-Face              |
| <b>Pulley Shaft Indicator</b>        | Standard            |
| <b>Rodent Screen</b>                 | None                |
| <b>RoHS Status</b>                   | ROHS COMPLIANT      |
| <b>Service Factor</b>                | 1.25                |
| <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>                         | 1140 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**

| NP4558A02LL |              |        |         |               |      |  |       |    |  |      |
|-------------|--------------|--------|---------|---------------|------|--|-------|----|--|------|
| CAT #       | VSPM31109    |        |         | WGT           | 40   |  | LBS   |    |  |      |
| SER #       |              |        |         | ENCL          | ODP  |  |       |    |  |      |
| SPEC        | 34B063R776   |        |         | CC            | 010A |  | IP    | 23 |  |      |
| HP          | .5           |        |         | NEMA NOM. EFF |      |  |       |    |  | 78.5 |
| VOLTS       | 230/460      |        |         | PF            | 61   |  |       |    |  |      |
| AMPS        | 2/1          |        |         |               |      |  |       |    |  |      |
| RATING      | 40C AMB-CONT |        |         |               |      |  |       |    |  |      |
| RPM         | 1140         |        |         | PH            | 3    |  | DES   | B  |  |      |
| FRAME       | 56C          | HZ     | 60      | CODE          | K    |  | CLASS | F  |  |      |
| SER.F.      | 1.25         | SF AMP | 2.2/1.1 |               |      |  |       |    |  |      |
| DE          | 6203         |        | ODE     | 6203          |      |  |       |    |  |      |
| GREASE      | POLYREX EM   |        |         |               |      |  |       |    |  |      |
|             |              |        |         |               |      |  |       |    |  |      |
|             |              |        |         |               |      |  |       |    |  |      |
|             |              |        |         |               |      |  |       |    |  |      |
|             |              |        |         |               |      |  |       |    |  |      |
|             |              |        |         |               |      |  |       |    |  |      |
|             |              |        |         |               | QR   |  |       |    |  |      |
| YR          |              |        |         |               |      |  |       |    |  |      |

**AC Induction Motor Performance Data**

Record # 100839

Preliminary Data Sheet

| Winding: 34WGR776-R003 |      |              | Type: 3436M                              |                       | Enclosure: ODP |  |
|------------------------|------|--------------|------------------------------------------|-----------------------|----------------|--|
| Nameplate Data         |      |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                |  |
| Rated Output (HP)      |      | .5           | Full Load Torque                         |                       | 2.38 LB-FT     |  |
| Volts                  |      | 230/460      | Start Configuration                      |                       | direct on line |  |
| Full Load Amps         |      | 2/1          | Breakdown Torque                         |                       | 8.4 LB-FT      |  |
| R.P.M.                 |      | 1140         | Pull-up Torque                           |                       | 5.4 LB-FT      |  |
| Hz                     | 60   | Phase        | 3                                        | Locked-rotor Torque   | 6.5 LB-FT      |  |
| NEMA Design Code       | B    | KVA Code     | K                                        | Starting Current      | 5.4 A          |  |
| Service Factor (S.F.)  |      | 1.25         | No-load Current                          |                       | 0.73 A         |  |
| NEMA Nom. Eff.         | 78.5 | Power Factor | 61                                       | Line-line Res. @ 25°C | 25.8 Ω         |  |
| Rating - Duty          |      | 40C AMB-CONT | Temp. Rise @ Rated Load                  |                       | 27°C           |  |
| S.F. Amps              |      | 2.2/1.1      | Temp. Rise @ S.F. Load                   |                       | 67°C           |  |
|                        |      |              | Locked-rotor Power Factor                |                       | 53             |  |
|                        |      |              | Rotor inertia                            |                       | 0.0855 lb-ft²  |  |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 24   | 39   | 52   | 61   | 69   | 74   | 69   |
| Efficiency      | 67   | 77   | 79.2 | 78.5 | 76.5 | 73.4 | 76.5 |
| Speed           | 1185 | 1171 | 1156 | 1137 | 1117 | 1091 | 1117 |
| Line amperes    | 0.75 | 0.8  | 0.89 | 1    | 1.13 | 1.3  | 1.13 |

ABB Motors and Mechanical Inc.

WINDING # 34WGR776

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 1140 RPM 460 V 3436M

TORQUES (LB-FT): PO=8.4 PU=5.4 LR=6.5 LRA=5.4





