

# ABB BALDOR RELIANCE III

---

## Customer information packet

### VSSWDM3538

.5HP, 1775RPM, 3PH, 60HZ, 56C, 3514M, 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>             | .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>                 | No Mounting                            |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                |
| <b>Blower</b>                         | None                                   |
| <b>Current @ Voltage</b>              | 2.020 A @ 230.0 V<br>1.010 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>         | 81.5 %                                 |
| <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>    | 1.0 a                                  |
| <b>Insulation Class</b>               | F                                      |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | B          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35V824     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGG069   |
| <b>Layout</b>       | 35LYV824   |
| <b>Eff. date</b>    | 02-25-2025 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 09-15-2023 |

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| <b>Inverter Code</b>                 | <b>Inverter Duty</b>                 |
| <b>KVA Code</b>                      | <b>N</b>                             |
| <b>Lifting Lugs</b>                  | <b>No Lifting Lugs</b>               |
| <b>Locked Bearing Indicator</b>      | <b>Locked Bearing</b>                |
| <b>Motor Lead Quantity/Wire Size</b> | <b>9 @ 18 AWG</b>                    |
| <b>Motor Lead Termination</b>        | <b>Flying Leads</b>                  |
| <b>Motor Standards</b>               | <b>NEMA</b>                          |
| <b>Motor Type</b>                    | <b>3514M</b>                         |
| <b>Mounting Arrangement</b>          | <b>F1</b>                            |
| <b>Number of Poles</b>               | <b>4</b>                             |
| <b>Overall Length</b>                | <b>11.08 IN</b>                      |
| <b>Power Factor</b>                  | <b>63</b>                            |
| <b>Product Family</b>                | <b>Wash Down All Stainless Steel</b> |
| <b>Pulley End Bearing Type</b>       | <b>Ball</b>                          |
| <b>Pulley Face Code</b>              | <b>C-Face</b>                        |
| <b>Pulley Shaft Indicator</b>        | <b>Standard</b>                      |
| <b>Rodent Screen</b>                 | <b>None</b>                          |
| <b>Service Factor</b>                | <b>1.25</b>                          |
| <b>Shaft Diameter</b>                | <b>0.625 IN</b>                      |
| <b>Shaft Ground Indicator</b>        | <b>No Shaft Grounding</b>            |
| <b>Shaft Rotation</b>                | <b>Reversible</b>                    |
| <b>Shaft Slinger Indicator</b>       | <b>No Slinger</b>                    |
| <b>Speed</b>                         | <b>1775 rpm</b>                      |
| <b>Speed Code</b>                    | <b>Single Speed</b>                  |
| <b>Starting Method</b>               | <b>Direct on line</b>                |
| <b>Thermal Device - Bearing</b>      | <b>None</b>                          |
| <b>Thermal Device - Winding</b>      | <b>None</b>                          |
| <b>Vibration Sensor Indicator</b>    | <b>No Vibration Sensor</b>           |
| <b>Winding Thermal 1</b>             | <b>None</b>                          |
| <b>Winding Thermal 2</b>             | <b>None</b>                          |

**Nameplate**

| NP1951A01    |               |      |  |     |     |      |       |    |   |   |  |
|--------------|---------------|------|--|-----|-----|------|-------|----|---|---|--|
| CAT.NO.      | VSSWDM3538    |      |  |     |     |      |       |    |   |   |  |
| SPEC.        | 35V824G069G3  |      |  |     |     |      |       |    |   |   |  |
| HP           | .5            |      |  |     |     |      |       |    |   |   |  |
| VOLTS        | 230/460       |      |  |     |     |      |       |    |   |   |  |
| AMP          | 2.02/1.01     |      |  |     |     |      |       |    |   |   |  |
| RPM          | 1775          |      |  |     |     |      |       |    |   |   |  |
| FRAME        | 56C           |      |  | HZ  |     | 60   |       | PH |   | 3 |  |
| SER.F.       | 1.25          | CODE |  | N   | DES | B    | CLASS |    | F |   |  |
| NEMA-NOM-EFF | 81.5          |      |  | PF  |     | 63   |       |    |   |   |  |
| RATING       | 40C AMB-CONT  |      |  |     |     |      |       |    |   |   |  |
| CC           |               |      |  |     |     |      |       |    |   |   |  |
| DE           | 6205          |      |  | ODE |     | 6203 |       |    |   |   |  |
| ENCL         | TENV          | SN   |  |     |     |      |       |    |   |   |  |
|              | SFA 2.2/1.1   |      |  |     |     |      |       |    |   |   |  |
|              | 20:1CT 20:1VT |      |  |     |     |      |       |    |   |   |  |

**AC Induction Motor Performance Data**

Record # 100503

Typical performance - not guaranteed values

| Winding: 35WGG069-R077 |      |              | Type: 3514M                              | Enclosure: TENV       |                |
|------------------------|------|--------------|------------------------------------------|-----------------------|----------------|
| Nameplate Data         |      |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                |
| Rated Output (HP)      |      | .5           | Full Load Torque                         |                       | 1.48 LB-FT     |
| Volts                  |      | 230/460      | Start Configuration                      |                       | direct on line |
| Full Load Amps         |      | 2.02/1.01    | Breakdown Torque                         |                       | 8 LB-FT        |
| R.P.M.                 |      | 1775         | Pull-up Torque                           |                       | 4.4 LB-FT      |
| Hz                     | 60   | Phase        | 3                                        | Locked-rotor Torque   | 5.1 LB-FT      |
| NEMA Design Code       | B    | KVA Code     | N                                        | Starting Current      | 8.4 A          |
| Service Factor (S.F.)  |      | 1.25         | No-load Current                          |                       | 0.85 A         |
| NEMA Nom. Eff.         | 81.5 | Power Factor | 63                                       | Line-line Res. @ 25°C | 30.3 Ω         |
| Rating - Duty          |      | 40C AMB-CONT | Temp. Rise @ Rated Load                  |                       | 44°C           |
| S.F. Amps              |      | 2.2/1.1      | Temp. Rise @ S.F. Load                   |                       | 51°C           |
|                        |      |              | Locked-rotor Power Factor                |                       | 66.8           |
|                        |      |              | Rotor inertia                            |                       | 0.101 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   | 37   | 48   | 58   | 65   | 71   | 65   |
| Efficiency      | 58.9 | 72.5 | 78.4 | 80.5 | 81.6 | 81.5 | 81.6 |
| Speed           | 1793 | 1788 | 1782 | 1776 | 1771 | 1763 | 1771 |
| Line amperes    | 0.85 | 0.89 | 0.94 | 1.01 | 1.11 | 1.21 | 1.11 |

ABB Motors and Mechanical Inc.

WINDING # 35WGG069

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 1775 RPM 460 V 3514M

TORQUES (LB-FT) : PO=8 PU=4.4 LR=5.1 LRA=8.4





