

# ABB BALDOR RELIANCE III

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## Customer information packet

### VFSWDM3556-E

1HP, 1170RPM, 3PH, 60HZ, 56C, 3532M, TEFC, F1, N

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                        |
| <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>             | 1.000 HP @ 60 HZ                                            |
| <b>Phase</b>                          | 3                                                           |
| <b>Synchronous Speed @ Frequency</b>  | 1200 RPM @ 60 HZ                                            |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                          |
| <b>Agency Approvals</b>               | CSA EEV<br>CURUSEEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>WEEE |
| <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>              | 3.800 A @ 230.0 V<br>3.800 A @ 208.0 V<br>1.900 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>         | 82.5 %                                                      |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                   |
| <b>Feedback Device</b>                | NO FEEDBACK                                                 |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | C          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35E4649    |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGG333   |
| <b>Layout</b>       | 35LYE4649  |
| <b>Eff. date</b>    | 02-29-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 06         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 09-09-2022 |

|                               |                        |
|-------------------------------|------------------------|
| Front Shaft Indicator         | None                   |
| Heater Indicator              | No Heater              |
| High Voltage Full Load Amps   | 1.9 a                  |
| Insulation Class              | H                      |
| Inverter Code                 | Not Inverter           |
| IP Rating                     | NONE                   |
| KVA Code                      | L                      |
| Lifting Lugs                  | No Lifting Lugs        |
| Locked Bearing Indicator      | Locked Bearing         |
| Max Speed                     | 1800 rpm               |
| Motor Finish                  | UNPAINTED              |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG             |
| Motor Lead Termination        | Flying Leads           |
| Motor Standards               | NEMA                   |
| Motor Type                    | 3532M                  |
| Mounting Arrangement          | F1                     |
| Number of Poles               | 6                      |
| Overall Length                | 14.83 IN               |
| Power Factor                  | 61                     |
| Product Family                | WD All SS Encapsulated |
| Pulley End Bearing Type       | Sealed Bearing         |
| Pulley Face Code              | C-Face                 |
| Pulley Shaft Indicator        | Standard               |
| Rodent Screen                 | None                   |
| Service Factor                | 1.15                   |
| Shaft Diameter                | 0.625 IN               |
| Shaft Ground Indicator        | No Shaft Grounding     |
| Shaft Rotation                | Reversible             |
| Shaft Slinger Indicator       | No Slinger             |
| Speed                         | 1170 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                |



**AC Induction Motor Performance Data**

Record # 87686

Preliminary Data Sheet

| Winding: 35WGG333-R001 |      |              | Type: 3532M                              |                       | Enclosure: TEFC |  |
|------------------------|------|--------------|------------------------------------------|-----------------------|-----------------|--|
| Nameplate Data         |      |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                 |  |
| Rated Output (HP)      |      | 1            | Full Load Torque                         |                       | 4.5 LB-FT       |  |
| Volts                  |      | 230/460      | Start Configuration                      |                       | direct on line  |  |
| Full Load Amps         |      | 3.8/1.9      | Breakdown Torque                         |                       | 18.8 LB-FT      |  |
| R.P.M.                 |      | 1170         | Pull-up Torque                           |                       | 10.3 LB-FT      |  |
| Hz                     | 60   | Phase        | 3                                        | Locked-rotor Torque   | 12 LB-FT        |  |
| NEMA Design Code       | B    | KVA Code     | L                                        | Starting Current      | 12.4 A          |  |
| Service Factor (S.F.)  |      | 1.15         | No-load Current                          |                       | 1.35 A          |  |
| NEMA Nom. Eff.         | 82.5 | Power Factor | 61                                       | Line-line Res. @ 25°C | 14.7 Ω          |  |
| Rating - Duty          |      | 40C AMB-CONT | Temp. Rise @ Rated Load                  |                       | 50°C            |  |
| S.F. Amps              |      |              | Temp. Rise @ S.F. Load                   |                       | 62°C            |  |
|                        |      |              | Locked-rotor Power Factor                |                       | 46              |  |
|                        |      |              | Rotor inertia                            |                       | 0.232 lb-ft²    |  |

**Load Characteristics 460 V, 60 Hz, 1 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 26   | 40   | 52   | 61   | 68   | 72   | 65   |
| Efficiency      | 67.6 | 78.2 | 81.6 | 82.5 | 82.1 | 81   | 82.3 |
| Speed           | 1194 | 1188 | 1182 | 1175 | 1167 | 1159 | 1170 |
| Line amperes    | 1.38 | 1.48 | 1.65 | 1.86 | 2.11 | 2.4  | 2.01 |

ABB Motors and Mechanical Inc.

WINDING # 35WGG333

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1170 RPM 460 V 3532M

TORQUES (LB-FT): PO=18.8 PU=10.3 LR=12 LRA=12.4





