

# ABB BALDOR RELIANCE III

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## Customer information packet

### VFSWDNM3558T-E-G

2HP, 1760RPM, 3PH, 60HZ, 145TC, 3546M, TENV, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | TENV                                                        |
| <b>Frame</b>                          | 145TC                                                       |
| <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>             | 2.000 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                          |
| <b>Agency Approvals</b>               | CURUSEEV<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>              | 5.300 A @ 230.0 V<br>5.600 A @ 208.0 V<br>2.650 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>         | 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                                                   |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | B          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35E6051    |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGZ811   |
| <b>Layout</b>       | 35LYE6051  |
| <b>Eff. date</b>    | 01-29-2026 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#18 Y     |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 02-23-2023 |

|                               |                        |
|-------------------------------|------------------------|
| High Voltage Full Load Amps   | 2.7 a                  |
| Insulation Class              | H                      |
| Inverter Code                 | Inverter Duty          |
| KVA Code                      | L                      |
| 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                    | 3546M                  |
| Mounting Arrangement          | F1                     |
| Number of Poles               | 4                      |
| Overall Length                | 15.09 IN               |
| Power Factor                  | 80                     |
| Product Family                | WD All SS Encapsulated |
| Pulley End Bearing Type       | Sealed Bearing         |
| Pulley Face Code              | C-Face                 |
| Pulley Shaft Indicator        | Standard               |
| Rodent Screen                 | None                   |
| RoHS Status                   | ROHS COMPLIANT         |
| Service Factor                | 1.15                   |
| Shaft Diameter                | 0.875 IN               |
| Shaft Ground Indicator        | Shaft Grounding        |
| Shaft Rotation                | Reversible             |
| Shaft Slinger Indicator       | No Slinger             |
| Speed                         | 1760 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**

| NP4427AAA01A |                  |         |     |      |      |               |       |      |    |       |  |  |  |
|--------------|------------------|---------|-----|------|------|---------------|-------|------|----|-------|--|--|--|
| CAT #        | VFSWDNM3558T-E-G |         |     |      |      | WGT           |       | LBS  |    |       |  |  |  |
| SPEC         | 35E6051Z811G1    |         |     |      |      | ENCL          | TENV  |      |    |       |  |  |  |
| SER #        |                  |         |     |      |      | CC            | 010A  | IP   | 69 |       |  |  |  |
| HP           | 2                | MAG CUR |     |      |      | 2.7/1.35      |       |      |    |       |  |  |  |
| VOLTS        | 230/460          |         |     |      |      | NEMA NOM. EFF |       |      |    | 86.5  |  |  |  |
| AMPS         | 5.3/2.65         |         |     |      |      | PF            | 80    |      |    |       |  |  |  |
| RATING       | 40C AMB-CONT     |         |     |      |      |               |       |      |    |       |  |  |  |
| RPM          | 1760             |         |     |      |      | MAX RPM       |       | 2700 |    |       |  |  |  |
| FRAME        | 145TC            | HZ      | 60  | CODE |      | L             | CLASS |      | H  |       |  |  |  |
| SER.F.       | 1.15             | SF AMP  | 6/3 | PH   |      |               | 3     | DES  | B  |       |  |  |  |
| DE           | 6205             |         | ODE |      | 6205 |               |       |      |    |       |  |  |  |
| LUBRICATION  | POLYREX EM       |         |     |      |      |               |       |      |    |       |  |  |  |
| ID LOGO      | INVERTER TYPE    |         |     | VPWM |      | CHP           | 60    | TO   | 90 | 1.5:1 |  |  |  |
| ID LOGO      | WK2              | 0.332   | CT  | 3    | TO   | 60            | 20:1  |      |    |       |  |  |  |
| ID LOGO      | SL HZ            | 1.33    | VT  | 3    | TO   | 60            | 20:1  |      |    |       |  |  |  |
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**AC Induction Motor Performance Data**

Record # 51199

Typical performance - not guaranteed values

| Winding: 35WGL289-R001 |    |              | Type: 3546M                              |                         | Enclosure: TENV       |          |         |
|------------------------|----|--------------|------------------------------------------|-------------------------|-----------------------|----------|---------|
|                        |    |              |                                          |                         |                       |          |         |
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                         |                       |          |         |
| Rated Output (HP)      |    | 2            | Full Load Torque                         |                         | 6.02 LB-FT            |          |         |
| Volts                  |    | 230/460      | Start Configuration                      |                         | direct on line        |          |         |
| Full Load Amps         |    | 5.6/2.8      | Breakdown Torque                         |                         | 28.1 LB-FT            |          |         |
| R.P.M.                 |    | 1750         | Pull-up Torque                           |                         | 16.2 LB-FT            |          |         |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque     |                       | 21 LB-FT |         |
| NEMA Design Code       |    | B            | KVA Code                                 | M                       | Starting Current      |          | 26.4 A  |
| Service Factor (S.F.)  |    | 1.15         |                                          | No-load Current         |                       | 1.45 A   |         |
| NEMA Nom. Eff.         |    | 88.5         | Power Factor                             | 78                      | Line-line Res. @ 25°C |          | 6.055 Ω |
| Rating - Duty          |    | 40C AMB-CONT |                                          | Temp. Rise @ Rated Load |                       | 95°C     |         |
| S.F. Amps              |    |              |                                          | Temp. Rise @ S.F. Load  |                       | 116°C    |         |

**Load Characteristics 460 V, 60 Hz, 2 HP**

| % of Rated Load | 25     | 50     | 75     | 100  | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|------|--------|--------|------|
| Power Factor    | 36     | 57     | 70     | 78   | 82     | 85     | 80   |
| Efficiency      | 83.4   | 88.6   | 89.6   | 89.2 | 88.2   | 86.8   | 88.6 |
| Speed           | 1788.3 | 1777.3 | 1765.6 | 1753 | 1739.2 | 1723.9 | 1745 |
| Line amperes    | 1.59   | 1.86   | 2.24   | 2.71 | 3.24   | 3.82   | 3.03 |

ABB Motors and Mechanical Inc.

WINDING # 35WGL289

Typical performance - not guaranteed values.

2 HP 3 PH 60 HZ 1750 RPM 460 V 3546M

TORQUES (LB-FT): PO=28.1 PU=16.2 LR=21 LRA=26.4





