

# ABB BALDOR RELIANCE III

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## Customer information packet

### VZDNM3556T

1HP, 1170RPM, 3PH, 60HZ, 145TC, 3532M, TENV, F1

Class - None

Division - Not Applicable

**Specifications**

|                                |                                        |
|--------------------------------|----------------------------------------|
| Enclosure                      | TENV                                   |
| Frame                          | 145TC                                  |
| 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             | 1.000 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               | CSA EEV<br>NEMA PREMIUM<br>UR          |
| 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              | 1.900 A @ 460.0 V<br>3.800 A @ 230.0 V |
| Design Code                    | B                                      |
| Drip Cover                     | No Drip Cover                          |
| Duty Rating                    | CONT                                   |
| Efficiency @ 100% Load         | 82.5 %                                 |
| Electrically Isolated Bearing  | Not Electrically Isolated              |
| Feedback Device                | NO FEEDBACK                            |
| Front Shaft Indicator          | None                                   |
| Heater Indicator               | No Heater                              |
| High Voltage Full Load Amps    | 1.9 a                                  |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | A          |
| Type         | AC         |
| Mech. spec.  | 35E6717    |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGG187   |
| Layout       | 35LYE6717  |
| Eff. date    | 08-05-2026 |
| CD Diagram   | CD0005     |
| Poles        | 06         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 05-13-2025 |

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Insulation Class</b>              | H                          |
| <b>Inverter Code</b>                 | Inverter Duty              |
| <b>KVA Code</b>                      | L                          |
| <b>Lifting Lugs</b>                  | No Lifting Lugs            |
| <b>Locked Bearing Indicator</b>      | Locked Bearing             |
| <b>Max Speed</b>                     | 1800 rpm                   |
| <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>                    | 3532M                      |
| <b>Mounting Arrangement</b>          | F1                         |
| <b>Number of Poles</b>               | 6                          |
| <b>Overall Length</b>                | 15.78 IN                   |
| <b>Power Factor</b>                  | 61                         |
| <b>Product Family</b>                | General Purpose            |
| <b>Pulley End Bearing Type</b>       | Sealed Bearing             |
| <b>Pulley Face Code</b>              | C-Face                     |
| <b>Pulley Shaft Indicator</b>        | Standard                   |
| <b>Rodent Screen</b>                 | None                       |
| <b>RoHS Status</b>                   | ROHS NON-COMPLIANT         |
| <b>Service Factor</b>                | 1.00                       |
| <b>Shaft Diameter</b>                | 0.875 IN                   |
| <b>Shaft Ground Indicator</b>        | Shaft Grounding            |
| <b>Shaft Rotation</b>                | Reversible                 |
| <b>Shaft Slinger Indicator</b>       | No Slinger                 |
| <b>Speed</b>                         | 1170 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>      | Normally Closed Thermostat |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor        |
| <b>Winding Thermal 1</b>             | None                       |
| <b>Winding Thermal 2</b>             | None                       |

Nameplate

| NP3943L        |                     |  |            |       |           |      |       |         |   |
|----------------|---------------------|--|------------|-------|-----------|------|-------|---------|---|
| CAT.NO.        | VZDNM3556T          |  |            |       |           |      |       |         |   |
| SPEC.          | 35E6717G187Z1       |  |            |       |           |      |       |         |   |
| FRAME          | 145TC               |  |            | H.P.  |           | 1 TE |       |         |   |
| VOLTS          | 230/460 ENCL TENV   |  |            |       |           |      |       |         |   |
| MAG. CUR.      | 2.7/1.35            |  |            |       | F.L. AMPS |      |       | 3.8/1.9 |   |
| R.P.M.         | 1170                |  | R.P.M. MAX |       |           |      | 1800  |         |   |
| HZ.            | 60                  |  | PH.        |       | 3         |      | CLASS |         | H |
| SER.F.         | 1.00                |  |            | SL HZ |           |      | 1.5   |         |   |
| NEMA NOM. EFF. | 82.5                |  | WK2        |       | 0.232     |      |       |         |   |
| RATING         | 40C AMB-CONT        |  |            |       |           |      |       |         |   |
| DE             | 6205                |  | ODE        |       | 6203      |      |       |         |   |
| CC             | 010A                |  | SN         |       |           |      |       |         |   |
|                | 1000:1 CT 1.5:1 CHP |  |            |       |           |      |       |         |   |
|                | 1.15 SF ON SINEWAVE |  |            |       |           |      |       |         |   |

**AC Induction Motor Performance Data**

Record # 108111

Typical performance - not guaranteed values

| Winding: 35WGG187-R006 |    |         | Type: 3532M                              |                     | Enclosure: TENV           |          |              |
|------------------------|----|---------|------------------------------------------|---------------------|---------------------------|----------|--------------|
| 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   |          | 79°C         |
| S.F. Amps              |    |         |                                          |                     | Temp. Rise @ S.F. Load    |          | 91°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      | 67.3 | 78.2 | 81.7 | 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 # 35WGG187

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





