

# ABB BALDOR RELIANCE III

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## Customer information packet

### VSPM3156T

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

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | OPSB                                                        |
| <b>Frame</b>                          | 145TC                                                       |
| <b>Frame Material</b>                 | 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>            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                          |
| <b>Agency Approvals</b>               | NEMA PREMIUM 4<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>              | 1.660 A @ 460.0 V<br>3.320 A @ 230.0 V<br>3.500 A @ 208.0 V |
| <b>Design Code</b>                    | B                                                           |
| <b>Drip Cover</b>                     | No Drip Cover                                               |
| <b>Duty Rating</b>                    | CONT                                                        |
| <b>Efficiency @ 100% Load</b>         | 84.0 %                                                      |
| <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>    | 1.7 a                                                       |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | B          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35E6388    |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGG824   |
| <b>Layout</b>       | 35LYE6388  |
| <b>Eff. date</b>    | 11-19-2025 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 06         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 01-05-2024 |

|                               |                     |
|-------------------------------|---------------------|
| Insulation Class              | F                   |
| Inverter Code                 | Inverter Duty       |
| KVA Code                      | J                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | Locked Bearing      |
| Max Speed                     | 1800 rpm            |
| 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                | 13.00 IN            |
| Power Factor                  | 67                  |
| Product Family                | General Purpose     |
| Pulley End Bearing Type       | Ball                |
| 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        | 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                |

**Nameplate**

| NP4423A01A01L |               |       |         |           |      |               |      |      |       |      |    |       |  |
|---------------|---------------|-------|---------|-----------|------|---------------|------|------|-------|------|----|-------|--|
| CAT #         | VSPM3156T     |       |         |           |      | WGT           | 47   |      | LBS   |      |    |       |  |
| SPEC          | 35E6388G824   |       |         |           |      | ENCL          | OPSB |      |       |      |    |       |  |
| SER #         |               |       |         |           |      | CC            | 010A |      | IP    | 23   |    |       |  |
| HP            | 1             |       | MAG CUR |           |      | 2.06/1.03     |      |      |       |      |    |       |  |
| VOLTS         | 230/460       |       |         |           |      | NEMA NOM. EFF |      |      |       |      | 84 |       |  |
| AMPS          | 3.32/1.66     |       |         |           |      | PF            | 67   |      |       |      |    |       |  |
| RATING        | 40C AMB-CONT  |       |         |           |      |               |      |      |       |      |    |       |  |
| RPM           | 1170          |       |         |           |      | MAX RPM       |      | 1800 |       |      |    |       |  |
| FRAME         | 145TC         |       | HZ      | 60        |      | CODE          | J    |      | CLASS | F    |    |       |  |
| SER.F.        | 1.15          |       | SF AMP  | 3.68/1.84 |      |               | PH   | 3    |       | DES  | B  |       |  |
| DE            | 6205          |       | ODE     |           | 6203 |               |      |      |       |      |    |       |  |
| LUBRICATION   | POLYREX EM    |       |         |           |      |               |      |      |       |      |    |       |  |
| ID LOGO       | INVERTER TYPE |       |         | VPWM      |      | CHP           | 60   |      | TO    | 90   |    | 1.5:1 |  |
| ID LOGO       | WK2           | 0.232 |         | CT        | 6    |               | TO   | 60   |       | 10:1 |    |       |  |
| ID LOGO       | SL HZ         | 1.57  |         | VT        | 3    |               | TO   | 60   |       | 20:1 |    |       |  |
|               |               |       |         |           |      |               |      |      |       |      |    |       |  |
|               |               |       |         |           |      |               |      |      |       |      |    |       |  |
|               |               |       |         |           |      |               |      |      |       |      |    |       |  |
|               |               |       |         |           |      |               |      |      |       |      |    |       |  |
|               |               |       |         |           |      |               | QR   |      |       |      |    |       |  |
| YR            |               |       |         |           |      |               |      |      |       |      |    |       |  |

**AC Induction Motor Performance Data**

Record # 100797

Typical performance - not guaranteed values

| Winding: 35WGG824-R002 |                 | Type: 3532M                              | Enclosure: ODP           |
|------------------------|-----------------|------------------------------------------|--------------------------|
| Nameplate Data         |                 | 460 V, 60 Hz:<br>High Voltage Connection |                          |
| Rated Output (HP)      | 1               | Full Load Torque                         | 4.47 LB-FT               |
| Volts                  | 230/460         | Start Configuration                      | direct on line           |
| Full Load Amps         | 2.06/1.03       | Breakdown Torque                         | 12.7 LB-FT               |
| R.P.M.                 | 1170            | Pull-up Torque                           | 7.4 LB-FT                |
| Hz                     | 60 Phase        | Locked-rotor Torque                      | 9 LB-FT                  |
| NEMA Design Code       | B KVA Code      | Starting Current                         | 9.5 A                    |
| Service Factor (S.F.)  | 1.15            | No-load Current                          | 1.03 A                   |
| NEMA Nom. Eff.         | 84 Power Factor | Line-line Res. @ 25°C                    | 18.3 Ω                   |
| Rating - Duty          | 40C AMB-CONT    | Temp. Rise @ Rated Load                  | 34°C                     |
| S.F. Amps              | 3.68/1.84       | Temp. Rise @ S.F. Load                   | 50°C                     |
|                        |                 | Locked-rotor Power Factor                | 45.8                     |
|                        |                 | Rotor inertia                            | 0.232 lb-ft <sup>2</sup> |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 29   | 46   | 59   | 67   | 72   | 75   | 70   |
| Efficiency      | 74.5 | 82.7 | 84.4 | 84.2 | 82.9 | 80.7 | 83.4 |
| Speed           | 1193 | 1186 | 1179 | 1171 | 1162 | 1151 | 1166 |
| Line amperes    | 1.08 | 1.21 | 1.41 | 1.66 | 1.96 | 2.32 | 1.84 |

ABB Motors and Mechanical Inc.

WINDING # 35WGG824

Typical performance - not guaranteed values.

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

TORQUES (LB-FT): PO=12.7 PU=7.4 LR=9 LRA=9.5





