

# ABB BALDOR RELIANCE III

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## Customer information packet

### SPM3543T

.75HP, 1175RPM, 3PH, 60HZ, 143T, 3526M, TEFC, F

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                        |
| <b>Frame</b>                          | 143T                                                        |
| <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>             | .750 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>                 | Rigid                                                       |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                     |
| <b>Blower</b>                         | None                                                        |
| <b>Current @ Voltage</b>              | 1.400 A @ 460.0 V<br>2.800 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>         | 82.5 %                                                      |
| <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>    | 1.4 a                                                       |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | C          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35E6248    |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGG019   |
| <b>Layout</b>       | 35LYE6248  |
| <b>Eff. date</b>    | 06-07-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 06         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 09-08-2023 |

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Insulation Class</b>              | <b>F</b>                   |
| <b>Inverter Code</b>                 | <b>Inverter Duty</b>       |
| <b>KVA Code</b>                      | <b>L</b>                   |
| <b>Lifting Lugs</b>                  | <b>No Lifting Lugs</b>     |
| <b>Locked Bearing Indicator</b>      | <b>No Locked Bearing</b>   |
| <b>Max Speed</b>                     | <b>1800 rpm</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>3526M</b>               |
| <b>Mounting Arrangement</b>          | <b>F1</b>                  |
| <b>Number of Poles</b>               | <b>6</b>                   |
| <b>Overall Length</b>                | <b>13.29 IN</b>            |
| <b>Power Factor</b>                  | <b>60</b>                  |
| <b>Product Family</b>                | <b>General Purpose</b>     |
| <b>Pulley End Bearing Type</b>       | <b>Ball</b>                |
| <b>Pulley Face Code</b>              | <b>Standard</b>            |
| <b>Pulley Shaft Indicator</b>        | <b>Standard</b>            |
| <b>Rodent Screen</b>                 | <b>None</b>                |
| <b>RoHS Status</b>                   | <b>ROHS COMPLIANT</b>      |
| <b>Service Factor</b>                | <b>1.15</b>                |
| <b>Shaft Diameter</b>                | <b>0.875 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>1175 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**

| NP4423A01A01L |               |         |       |   |      |               |       |     |      |   |      |       |
|---------------|---------------|---------|-------|---|------|---------------|-------|-----|------|---|------|-------|
| CAT #         | SPM3543T      |         |       |   |      | WGT           | 41    | LBS |      |   |      |       |
| SPEC          | 35E6248G019   |         |       |   |      | ENCL          | TEFC  |     |      |   |      |       |
| SER #         |               |         |       |   |      | CC            | 010A  | IP  | 54   |   |      |       |
| HP            | .75           | MAG CUR |       |   |      | 2/1           |       |     |      |   |      |       |
| VOLTS         | 230/460       |         |       |   |      | NEMA NOM. EFF |       |     |      |   | 82.5 |       |
| AMPS          | 2.8/1.4       |         |       |   |      | PF            | 60    |     |      |   |      |       |
| RATING        | 40C AMB-CONT  |         |       |   |      |               |       |     |      |   |      |       |
| RPM           | 1175          |         |       |   |      | MAX RPM       |       |     | 1800 |   |      |       |
| FRAME         | 143T          | HZ      | 60    |   | CODE | L             | CLASS |     |      | F |      |       |
| SER.F.        | 1.15          | SF AMP  | 3/1.5 |   |      |               | 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           | 0.189   | 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 # 100851

Typical performance - not guaranteed values

| Winding: 35WGG019-R017 |    |              | Type: 3526M                              | Enclosure: TEFC           |                       |              |        |
|------------------------|----|--------------|------------------------------------------|---------------------------|-----------------------|--------------|--------|
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                           |                       |              |        |
| Rated Output (HP)      |    | .75          | Full Load Torque                         |                           | 3.34 LB-FT            |              |        |
| Volts                  |    | 230/460      | Start Configuration                      |                           | direct on line        |              |        |
| Full Load Amps         |    | 2.8/1.4      | Breakdown Torque                         |                           | 11.9 LB-FT            |              |        |
| R.P.M.                 |    | 1175         | Pull-up Torque                           |                           | 7.1 LB-FT             |              |        |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque       |                       | 8.6 LB-FT    |        |
| NEMA Design Code       |    | B            | KVA Code                                 | L                         | Starting Current      |              | 9.1 A  |
| Service Factor (S.F.)  |    | 1.15         |                                          | No-load Current           |                       | 1.02 A       |        |
| NEMA Nom. Eff.         |    | 82.5         | Power Factor                             | 60                        | Line-line Res. @ 25°C |              | 21.1 Ω |
| Rating - Duty          |    | 40C AMB-CONT |                                          | Temp. Rise @ Rated Load   |                       | 35°C         |        |
| S.F. Amps              |    | 3/1.5        |                                          | Temp. Rise @ S.F. Load    |                       | 40°C         |        |
|                        |    |              |                                          | Locked-rotor Power Factor |                       | 48.3         |        |
|                        |    |              |                                          | Rotor inertia             |                       | 0.189 lb-ft² |        |

**Load Characteristics 460 V, 60 Hz, 0.75 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 25   | 39   | 51   | 60   | 66   | 71   | 64   |
| Efficiency      | 68.1 | 78.7 | 81.8 | 82.8 | 82.2 | 80.9 | 82.4 |
| Speed           | 1194 | 1189 | 1183 | 1176 | 1169 | 1161 | 1172 |
| Line amperes    | 1.05 | 1.14 | 1.26 | 1.42 | 1.61 | 1.84 | 1.53 |

ABB Motors and Mechanical Inc.

WINDING # 35WGG019

Typical performance - not guaranteed values.

0.75 HP 3 PH 60 HZ 1175 RPM 460 V 3526M

TORQUES (LB-FT): PO=11.9 PU=7.1 LR=8.6 LRA=9.1





