

# ABB BALDOR RELIANCE III

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## Customer information packet

### SPM3313T

10HP, 1770RPM, 3PH, 60HZ, 215T, 3750M, OPSB, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                          |
|---------------------------------------|------------------------------------------|
| <b>Enclosure</b>                      | OPSB                                     |
| <b>Frame</b>                          | 215T                                     |
| <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>             | 10.000 HP @ 60 HZ                        |
| <b>Phase</b>                          | 3                                        |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                         |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ       |
| <b>Agency Approvals</b>               | WEEE<br>NEMA PREMIUM 4                   |
| <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>              | 12.100 A @ 460.0 V<br>24.200 A @ 230.0 V |
| <b>Design Code</b>                    | A                                        |
| <b>Drip Cover</b>                     | No Drip Cover                            |
| <b>Duty Rating</b>                    | CONT                                     |
| <b>Efficiency @ 100% Load</b>         | 92.4 %                                   |
| <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>    | 12.1 a                                   |
| <b>Insulation Class</b>               | F                                        |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | C          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 37T645     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 37WGZ671   |
| <b>Layout</b>       | 37LYT645   |
| <b>Eff. date</b>    | 05-03-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#14       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 09-05-2023 |

|                                      |                       |
|--------------------------------------|-----------------------|
| <b>Inverter Code</b>                 | <b>Inverter Duty</b>  |
| <b>KVA Code</b>                      | J                     |
| <b>Lifting Lugs</b>                  | Vertical Lifting Lugs |
| <b>Locked Bearing Indicator</b>      | No Locked Bearing     |
| <b>Max Speed</b>                     | 2700 rpm              |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 14 AWG            |
| <b>Motor Lead Termination</b>        | Flying Leads          |
| <b>Motor Standards</b>               | NEMA                  |
| <b>Motor Type</b>                    | 3750M                 |
| <b>Mounting Arrangement</b>          | F1                    |
| <b>Number of Poles</b>               | 4                     |
| <b>Overall Length</b>                | 18.20 IN              |
| <b>Power Factor</b>                  | 82                    |
| <b>Product Family</b>                | General Purpose       |
| <b>Pulley End Bearing Type</b>       | Ball                  |
| <b>Pulley Face Code</b>              | Standard              |
| <b>Pulley Shaft Indicator</b>        | Standard              |
| <b>Rodent Screen</b>                 | None                  |
| <b>RoHS Status</b>                   | ROHS COMPLIANT        |
| <b>Service Factor</b>                | 1.15                  |
| <b>Shaft Diameter</b>                | 1.375 IN              |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding    |
| <b>Shaft Rotation</b>                | Reversible            |
| <b>Shaft Slinger Indicator</b>       | No Slinger            |
| <b>Speed</b>                         | 1770 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>      | None                  |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor   |
| <b>Winding Thermal 1</b>             | None                  |
| <b>Winding Thermal 2</b>             | None                  |

**Nameplate**

| NP4423A01A01L |               |        |    |           |      |         |          |     |         |               |      |       |  |  |  |
|---------------|---------------|--------|----|-----------|------|---------|----------|-----|---------|---------------|------|-------|--|--|--|
| CAT #         | SPM3313T      |        |    |           |      | WGT     | 158      | LBS |         |               |      |       |  |  |  |
| SPEC          | 37T645Z671    |        |    |           |      | ENCL    | OPSB     |     |         |               |      |       |  |  |  |
| SER #         |               |        |    |           |      | CC      | 010A     | IP  | 22      |               |      |       |  |  |  |
| HP            | 10            |        |    |           |      | MAG CUR | 10.2/5.1 |     |         |               |      |       |  |  |  |
| VOLTS         | 230/460       |        |    |           |      |         |          |     |         | NEMA NOM. EFF | 92.4 |       |  |  |  |
| AMPS          | 24.2/12.1     |        |    |           |      |         |          |     | PF      | 82            |      |       |  |  |  |
| RATING        | 40C AMB-CONT  |        |    |           |      |         |          |     |         |               |      |       |  |  |  |
| RPM           | 1770          |        |    |           |      |         |          |     | MAX RPM | 2700          |      |       |  |  |  |
| FRAME         | 215T          | HZ     |    | 60        |      |         | CODE     | J   | CLASS   |               | F    |       |  |  |  |
| SER.F.        | 1.15          | SF AMP |    | 27.6/13.8 |      |         |          | PH  | 3       | DES           | A    |       |  |  |  |
| DE            | 6307          |        |    | ODE       |      | 6206    |          |     |         |               |      |       |  |  |  |
| LUBRICATION   | POLYREX EM    |        |    |           |      |         |          |     |         |               |      |       |  |  |  |
| ID LOGO       | INVERTER TYPE |        |    |           | VPWM |         | CHP      | 60  | TO      |               | 90   | 1.5:1 |  |  |  |
| ID LOGO       | WK2           | 1.18   | CT |           | 6    | TO      |          | 60  | 10:1    |               |      |       |  |  |  |
| ID LOGO       | SL HZ         | 1      | VT |           | 3    | TO      |          | 60  | 20:1    |               |      |       |  |  |  |
|               |               |        |    |           |      |         |          |     |         |               |      |       |  |  |  |
|               |               |        |    |           |      |         |          |     |         |               |      |       |  |  |  |
|               |               |        |    |           |      |         |          |     |         |               |      |       |  |  |  |
|               |               |        |    |           |      |         |          |     |         |               |      |       |  |  |  |
|               |               |        |    |           |      |         |          | QR  |         |               |      |       |  |  |  |
| YR            |               |        |    |           |      |         |          |     |         |               |      |       |  |  |  |

**AC Induction Motor Performance Data**

Record # 96652

Typical performance - not guaranteed values

| Winding: 37WGZ671-R001 |      |              | Type: 3750M                              |                       | Enclosure: OPSB |  |
|------------------------|------|--------------|------------------------------------------|-----------------------|-----------------|--|
| Nameplate Data         |      |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                 |  |
| Rated Output (HP)      |      | 10           | Full Load Torque                         |                       | 29.83 LB-FT     |  |
| Volts                  |      | 230/460      | Start Configuration                      |                       | direct on line  |  |
| Full Load Amps         |      | 24.2/12.1    | Breakdown Torque                         |                       | 105 LB-FT       |  |
| R.P.M.                 |      | 1770         | Pull-up Torque                           |                       | 47.5 LB-FT      |  |
| Hz                     | 60   | Phase        | 3                                        | Locked-rotor Torque   | 66.1 LB-FT      |  |
| NEMA Design Code       | A    | KVA Code     | J                                        | Starting Current      | 107 A           |  |
| Service Factor (S.F.)  |      | 1.15         | No-load Current                          |                       | 6.05 A          |  |
| NEMA Nom. Eff.         | 92.4 | Power Factor | 82                                       | Line-line Res. @ 25°C | 0.89616 Ω       |  |
| Rating - Duty          |      | 40C AMB-CONT | Temp. Rise @ Rated Load                  |                       | 36°C            |  |
| S.F. Amps              |      | 27.6/13.8    | Temp. Rise @ S.F. Load                   |                       | 44°C            |  |
|                        |      |              | Locked-rotor Power Factor                |                       | 35.2            |  |

**Load Characteristics 460 V, 60 Hz, 10 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 40     | 62     | 74     | 79     | 82     | 84     | 81   |
| Efficiency      | 87.9   | 92.1   | 92.9   | 92.7   | 92     | 91.2   | 92.3 |
| Speed           | 1793.1 | 1787.3 | 1781.1 | 1774.3 | 1767.2 | 1759.6 | 1770 |
| Line amperes    | 6.71   | 8.27   | 10.4   | 12.8   | 15.5   | 18.4   | 14.4 |

ABB Motors and Mechanical Inc.

WINDING # 37WGZ671

Typical performance - not guaranteed values.

10 HP 3 PH 60 HZ 1770 RPM 460 V 3750M

TORQUES (LB-FT): PO=105 PU=47.5 LR=66.1 LRA=107





