

# ABB BALDOR RELIANCE III

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## Customer information packet

### VSPM3709T

7.5HP, 3520RPM, 3PH, 60HZ, 213TC, 3728M, TEFC

Class - None

Division - Not Applicable

**Specifications**

|                                |                                         |
|--------------------------------|-----------------------------------------|
| Enclosure                      | TEFC                                    |
| Frame                          | 213TC                                   |
| 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             | 7.500 HP @ 60 HZ                        |
| Phase                          | 3                                       |
| Synchronous Speed @ Frequency  | 3600 RPM @ 60 HZ                        |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ      |
| Agency Approvals               | WEEE<br>NEMA PREMIUM 4                  |
| 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              | 18.000 A @ 230.0 V<br>9.000 A @ 460.0 V |
| Design Code                    | A                                       |
| Drip Cover                     | No Drip Cover                           |
| Duty Rating                    | CONT                                    |
| Efficiency @ 100% Load         | 90.2 %                                  |
| Electrically Isolated Bearing  | Not Electrically Isolated               |
| Feedback Device                | NO FEEDBACK                             |
| Front Shaft Indicator          | None                                    |
| Heater Indicator               | No Heater                               |
| High Voltage Full Load Amps    | 9.0 a                                   |
| Insulation Class               | F                                       |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | B          |
| Type         | AC         |
| Mech. spec.  | 37T656     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 37WGL869   |
| Layout       | 37LYT656   |
| Eff. date    | 11-19-2025 |
| CD Diagram   | CD0005     |
| Poles        | 02         |
| Leads        | 9#14       |
| Proprietary  | False      |
| Created date | 11-29-2023 |

|                                      |                       |
|--------------------------------------|-----------------------|
| <b>Inverter Code</b>                 | <b>Inverter Duty</b>  |
| <b>KVA Code</b>                      | J                     |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs |
| <b>Locked Bearing Indicator</b>      | Locked Bearing        |
| <b>Max Speed</b>                     | 5400 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>                    | 3728M                 |
| <b>Mounting Arrangement</b>          | F1                    |
| <b>Number of Poles</b>               | 2                     |
| <b>Overall Length</b>                | 18.63 IN              |
| <b>Power Factor</b>                  | 86                    |
| <b>Product Family</b>                | General Purpose       |
| <b>Pulley End Bearing Type</b>       | Ball                  |
| <b>Pulley Face Code</b>              | C-Face                |
| <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>                         | 3520 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 #         | VSPM3709T     |         |       |   |      | WGT           | 121   | LBS |      |    |       |  |  |
| SPEC          | 37T656L869    |         |       |   |      | ENCL          | TEFC  |     |      |    |       |  |  |
| SER #         |               |         |       |   |      | CC            | 010A  | IP  | 54   |    |       |  |  |
| HP            | 7.5           | MAG CUR |       |   |      | 7/3.5         |       |     |      |    |       |  |  |
| VOLTS         | 230/460       |         |       |   |      | NEMA NOM. EFF |       |     |      |    | 90.2  |  |  |
| AMPS          | 18/9          |         |       |   |      | PF            | 86    |     |      |    |       |  |  |
| RATING        | 40C AMB-CONT  |         |       |   |      |               |       |     |      |    |       |  |  |
| RPM           | 3520          |         |       |   |      | MAX RPM       |       |     | 5400 |    |       |  |  |
| FRAME         | 213TC         | HZ      | 60    |   | CODE | J             | CLASS |     | F    |    |       |  |  |
| SER.F.        | 1.15          | SF AMP  | 20/10 |   |      |               | 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           | 0.255   | CT    | 6 | TO   | 60            | 10:1  |     |      |    |       |  |  |
| ID LOGO       | SL HZ         | 1.3     | VT    | 3 | TO   | 60            | 20:1  |     |      |    |       |  |  |
|               |               |         |       |   |      |               |       |     |      |    |       |  |  |
|               |               |         |       |   |      |               |       |     |      |    |       |  |  |
|               |               |         |       |   |      |               |       |     |      |    |       |  |  |
|               |               |         |       |   |      |               |       |     |      |    |       |  |  |
|               |               |         |       |   |      |               | QR    |     |      |    |       |  |  |
| YR            |               |         |       |   |      |               |       |     |      |    |       |  |  |

**AC Induction Motor Performance Data**

Record # 100959

Typical performance - not guaranteed values

| Winding: 37WGL869-R011 |    |         | Type: 3728M                              |                     | Enclosure: TEFC         |            |      |
|------------------------|----|---------|------------------------------------------|---------------------|-------------------------|------------|------|
| Nameplate Data         |    |         | 460 V, 60 Hz:<br>High Voltage Connection |                     |                         |            |      |
| Rated Output (HP)      |    | 7.5     | Full Load Torque                         |                     | 11.2 LB-FT              |            |      |
| Volts                  |    | 230/460 | Start Configuration                      |                     | direct on line          |            |      |
| Full Load Amps         |    | 18/9    | Breakdown Torque                         |                     | 40.3 LB-FT              |            |      |
| R.P.M.                 |    | 3520    | Pull-up Torque                           |                     | 19.7 LB-FT              |            |      |
| Hz                     | 60 | Phase   | 3                                        | Locked-rotor Torque |                         | 21.8 LB-FT |      |
| NEMA Design Code       |    | A       | KVA Code                                 |                     | J                       |            |      |
| Service Factor (S.F.)  |    | 1.15    | No-load Current                          |                     | 3.52 A                  |            |      |
| NEMA Nom. Eff.         |    | 90.2    | Power Factor                             |                     | 86                      |            |      |
| Rating - Duty          |    | 40C     | AMB-CONT                                 |                     | Temp. Rise @ Rated Load |            | 50°C |
| S.F. Amps              |    | 20/10   | Temp. Rise @ S.F. Load                   |                     | 61°C                    |            |      |
|                        |    |         | Locked-rotor Power Factor                |                     | 33.7                    |            |      |
|                        |    |         | Rotor inertia                            |                     | 0.255 lb-ft²            |            |      |

**Load Characteristics 460 V, 60 Hz, 7.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 49   | 71   | 81   | 86   | 88   | 89   | 87   |
| Efficiency      | 87.4 | 91.5 | 92.1 | 91.6 | 90.8 | 89.4 | 91.1 |
| Speed           | 3580 | 3560 | 3540 | 3518 | 3494 | 3468 | 3504 |
| Line amperes    | 4.1  | 5.4  | 7.06 | 8.96 | 11   | 13.2 | 10.2 |

ABB Motors and Mechanical Inc.

WINDING # 37WGL869

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 3520 RPM 460 V 3728M

TORQUES (LB-FT): PO=40.3 PU=19.7 LR=21.8 LRA=68.4





