

# ABB BALDOR RELIANCE III

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## Customer information packet

### EM3212T

5HP, 3455RPM, 3PH, 60HZ, 182T, 3620M, OPSB, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                               |
|---------------------------------------|---------------------------------------------------------------|
| <b>Enclosure</b>                      | OPSB                                                          |
| <b>Frame</b>                          | 182T                                                          |
| <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>             | 5.000 HP @ 60 HZ                                              |
| <b>Phase</b>                          | 3                                                             |
| <b>Synchronous Speed @ Frequency</b>  | 3600 RPM @ 60 HZ                                              |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                            |
| <b>Agency Approvals</b>               | CURUSEEV<br>NEMA PREMIUM                                      |
| <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>              | 12.200 A @ 230.0 V<br>13.500 A @ 208.0 V<br>6.080 A @ 460.0 V |
| <b>Design Code</b>                    | A                                                             |
| <b>Drip Cover</b>                     | No Drip Cover                                                 |
| <b>Duty Rating</b>                    | CONT                                                          |
| <b>Efficiency @ 100% Load</b>         | 86.5 %                                                        |
| <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>    | 6.1 a                                                         |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | B          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 36G548     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 36WGZ652   |
| <b>Layout</b>       | 36LYG548   |
| <b>Eff. date</b>    | 03-31-2026 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 02         |
| <b>Leads</b>        | 9#16       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 11-06-2025 |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Insulation Class</b>              | F                   |
| <b>Inverter Code</b>                 | Inverter Ready      |
| <b>KVA Code</b>                      | J                   |
| <b>Lifting Lugs</b>                  | No Lifting Lugs     |
| <b>Locked Bearing Indicator</b>      | No Locked Bearing   |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 16 AWG          |
| <b>Motor Lead Termination</b>        | Flying Leads        |
| <b>Motor Standards</b>               | NEMA                |
| <b>Motor Type</b>                    | 3620M               |
| <b>Mounting Arrangement</b>          | F1                  |
| <b>Number of Poles</b>               | 2                   |
| <b>Overall Length</b>                | 13.62 IN            |
| <b>Power Factor</b>                  | 91                  |
| <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>                | 1.125 IN            |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding  |
| <b>Shaft Rotation</b>                | Reversible          |
| <b>Shaft Slinger Indicator</b>       | No Slinger          |
| <b>Speed</b>                         | 3455 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**

| NP3553LUA                 |                             |          |     |      |   |       |    |       |  |
|---------------------------|-----------------------------|----------|-----|------|---|-------|----|-------|--|
| CAT.NO.                   | EM3212T                     |          |     |      |   |       |    |       |  |
| SPEC.                     | 36G548Z652                  |          |     |      |   |       |    |       |  |
| HP                        | 5                           |          |     |      |   |       |    |       |  |
| VOLTS                     | 230/460                     |          |     |      |   |       |    |       |  |
| AMPS                      | 12.2/6.08                   |          |     |      |   |       |    |       |  |
| RPM                       | 3455                        |          |     |      |   |       |    |       |  |
| FRAME                     | 182T                        |          | HZ  | 60   |   |       | PH | 3     |  |
| SF                        | 1.15                        | CODE     | J   | DES  | A | CLASS | F  |       |  |
| NEMA NOM. EFF             | 86.5                        | PF       | 91  |      |   |       |    |       |  |
| RATING                    | 40C AMB-CONT                |          |     |      |   |       |    |       |  |
| CC                        | 010A                        |          |     |      |   |       |    |       |  |
| ENCL                      | OPSB                        | SN       |     |      |   |       |    |       |  |
| DE                        | 6206                        |          | ODE | 6205 |   |       |    |       |  |
| VPWM INVERTER READY       |                             | SFA 14/7 |     |      |   |       |    |       |  |
| CT30-60(2:1) VT3-60(20:1) |                             |          |     |      |   |       |    |       |  |
| USABLE AT                 | 50HZ 5HP 190/380V 15.2/7.6A |          |     |      |   |       |    | SF1.0 |  |

**Parts List**

| <b>Part number</b> | <b>Description</b>                       | <b>Quantity</b> |
|--------------------|------------------------------------------|-----------------|
| SA443017           | SA 36G548Z652                            | 1.000 ea        |
| RA435513           | RA 36G548Z652                            | 1.000 ea        |
| 36CB3004           | 36 CB CASTING W/1.09 DIA LEAD HOLE @ 6:0 | 1.000 ea        |
| 51XB1016A07        | 10-16 X 7/16 HWSSLD SERTYB               | 2.000 ea        |
| 11XW1032G06        | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea        |
| 36EP3204B00        | MASTER ODE,205 BRG,GRSR                  | 1.000 ea        |
| HW4500A01          | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 ea        |
| HW5100A05          | WVY WSHR F/205 & 304 BRGS                | 1.000 ea        |
| 36EP3205D00        | MASTER DE,206 BRG,1.197SH,GRSR           | 1.000 ea        |
| HW4500A01          | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 ea        |
| XY2520A12          | 1/4-20 HEX NUT, DIRECTIONAL SERRATIONS   | 4.000 ea        |
| 36CB4516           | 750LIPPED CB LID - GALVANNEAL            | 1.000 ea        |
| 51XW0832A07        | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 ea        |
| HW2501E19          | STD SQUARE KEY .25 SQUARE X 2.125 LONG   | 1.000 ea        |
| 85XU0407S04        | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 ea        |
| MJ1000A02          | GREASE, POLYREX EM EXXON                 | 0.050 lb        |
| HA3101A23          | THRUBOLT 1/4-20 X 9.625 DEMBY            | 4.000 ea        |
| 36AD2004A01        | BAFFLE PLATE,MOD 36-SLTD BAND MTRS DELTA | 2.000 ea        |
| MG1050Y01          | CELEROL BALDOR GOLD *5 GALLON BUCKET*    | 0.022 ga        |
| LB1624             | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea        |
| LC0005             | CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING  | 1.000 ea        |
| NP3553LUA          | ALUM SUPER-E VPWM INV READY UL CC NEMA P | 1.000 ea        |
| 36PA1000           | PKG GRP, PRINT PK1016A08                 | 1.000 ea        |
| MN416A01           | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea        |
| FE-0000001         | ZRTG FE ASSEMBLY                         | 1.000 ea        |
| PE-0000001         | ZRTG PE ASSEMBLY                         | 1.000 ea        |

**Accessories**

| Part number   | Description  | Multiplier |
|---------------|--------------|------------|
| 36-3403       | C FACE KIT   | A8         |
| 36EP1405A09SP | D-FLANGE KIT | A8         |

**AC Induction Motor Performance Data**

Record # 115762

Typical performance - not guaranteed values

| Winding: 36WGZ652-R001 |    |              |              | Type: 3620M                              |  | Enclosure: OPSB       |  |         |
|------------------------|----|--------------|--------------|------------------------------------------|--|-----------------------|--|---------|
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>High Voltage Connection |  |                       |  |         |
| Rated Output (HP)      |    | 5            |              | Full Load Torque                         |  | 7.649 LB-FT           |  |         |
| Volts                  |    | 230/460      |              | Start Configuration                      |  | direct on line        |  |         |
| Full Load Amps         |    | 12.2/6.08    |              | Breakdown Torque                         |  | 26.8 LB-FT            |  |         |
| R.P.M.                 |    | 3455         |              | Pull-up Torque                           |  | 17.6 LB-FT            |  |         |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |  | 18.8 LB-FT            |  |         |
| NEMA Design Code       |    | A            | KVA Code     | J                                        |  | Starting Current      |  | 42.5 A  |
| Service Factor (S.F.)  |    | 1.15         |              | No-load Current                          |  | 2.16 A                |  |         |
| NEMA Nom. Eff.         |    | 86.5         | Power Factor | 91                                       |  | Line-line Res. @ 25°C |  | 3.971 Ω |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |  | 43°C                  |  |         |
| S.F. Amps              |    | 14/7         |              | Temp. Rise @ S.F. Load                   |  | 55°C                  |  |         |
|                        |    |              |              | Locked-rotor Power Factor                |  | 54.7                  |  |         |

**Load Characteristics 460 V, 60 Hz, 5 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 54     | 77     | 86     | 90     | 92     | 92     | 91   |
| Efficiency      | 84.9   | 89     | 88.8   | 87.2   | 85     | 82.1   | 85.9 |
| Speed           | 3568.5 | 3534.9 | 3496.5 | 3454.7 | 3406.5 | 3355.9 | 3426 |
| Line amperes    | 2.55   | 3.45   | 4.64   | 6.01   | 7.57   | 9.29   | 6.95 |

ABB Motors and Mechanical Inc.

WINDING # 36WGZ652

Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 3455 RPM 460 V 3620M

TORQUES (LB-FT): PO=26.8 PU=17.6 LR=18.8 LRA=42.5





