

# ABB BALDOR RELIANCE III

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## Customer information packet

### EM3546T-G

1HP, 1760RPM, 3PH, 60HZ, 143T, 3520M, TEFC, F1

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>             | 1.000 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>               | CSA EEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>UR               |
| <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>              | 3.260 A @ 230.0 V<br>3.200 A @ 208.0 V<br>1.630 A @ 460.0 V |
| <b>Design Code</b>                    | B                                                           |
| <b>Drip Cover</b>                     | No Drip Cover                                               |
| <b>Duty Rating</b>                    | CONT                                                        |
| <b>Efficiency @ 100% Load</b>         | 85.5 %                                                      |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                   |
| <b>Feedback Device</b>                | NO FEEDBACK                                                 |
| <b>Front Shaft Indicator</b>          | None                                                        |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | G          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35Z063     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGG004   |
| <b>Layout</b>       | 35LYZ063   |
| <b>Eff. date</b>    | 01-12-2026 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 01-10-2022 |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Heater Indicator</b>              | No Heater           |
| <b>High Voltage Full Load Amps</b>   | 1.6 a               |
| <b>Insulation Class</b>              | H                   |
| <b>Inverter Code</b>                 | Inverter Ready      |
| <b>KVA Code</b>                      | N                   |
| <b>Lifting Lugs</b>                  | No Lifting Lugs     |
| <b>Locked Bearing Indicator</b>      | Locked Bearing      |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 18 AWG          |
| <b>Motor Lead Termination</b>        | Flying Leads        |
| <b>Motor Standards</b>               | NEMA                |
| <b>Motor Type</b>                    | 3520M               |
| <b>Mounting Arrangement</b>          | F1                  |
| <b>Number of Poles</b>               | 4                   |
| <b>Overall Length</b>                | 12.31 IN            |
| <b>Power Factor</b>                  | 67                  |
| <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>Service Factor</b>                | 1.15                |
| <b>Shaft Diameter</b>                | 0.875 IN            |
| <b>Shaft Ground Indicator</b>        | Shaft Grounding     |
| <b>Shaft Rotation</b>                | Reversible          |
| <b>Shaft Slinger Indicator</b>       | No Slinger          |
| <b>Speed</b>                         | 1760 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**

| NP3441LUA                  |              |     |               |      |     |   |       |   |       |
|----------------------------|--------------|-----|---------------|------|-----|---|-------|---|-------|
| CAT.NO.                    | EM3546T-G    |     |               |      |     |   |       |   |       |
| SPEC                       | 35Z063G004G1 |     |               |      |     |   |       |   |       |
| HP                         | 1            |     |               |      |     |   |       |   |       |
| VOLTS                      | 230/460      |     |               |      |     |   |       |   |       |
| AMPS                       | 3.26/1.63    |     |               |      |     |   |       |   |       |
| RPM                        | 1760         |     |               |      |     |   |       |   |       |
| FRAME                      | 143T         |     | HZ            | 60   |     |   | PH    | 3 |       |
| SF                         | 1.15         |     | CODE          | N    | DES | B | CLASS | H |       |
| NEMA NOM. EFF              | 85.5         |     | PF            | 67   |     |   |       |   |       |
| RATING                     | 40C AMB-CONT |     |               |      |     |   |       |   |       |
| CC                         | 010A         |     |               |      |     |   |       |   |       |
| ENCL                       | TEFC         | SER |               |      |     |   |       |   |       |
| DE                         | 6205         |     | ODE           | 6203 |     |   |       |   |       |
| VPWM INVERTER READY        |              |     | SFA 3.52/1.76 |      |     |   |       |   |       |
| CT6-60H(10:1)VT3-60H(20:1  |              |     |               |      |     |   |       |   |       |
| 50HZ 1HP 190/380V 3.6/1.8A |              |     |               |      |     |   |       |   | SF1.0 |

**AC Induction Motor Performance Data**

Record # 86922

Typical performance - not guaranteed values

| Winding: 35WGG004-R004 |    |           | Type: 3520M                              |                     | Enclosure: TEFC           |                       |
|------------------------|----|-----------|------------------------------------------|---------------------|---------------------------|-----------------------|
| Nameplate Data         |    |           | 460 V, 60 Hz:<br>High Voltage Connection |                     |                           |                       |
| Rated Output (HP)      |    | 1         | Full Load Torque                         |                     | 2.97 LB-FT                |                       |
| Volts                  |    | 230/460   | Start Configuration                      |                     | direct on line            |                       |
| Full Load Amps         |    | 3.26/1.63 | Breakdown Torque                         |                     | 13.68 LB-FT               |                       |
| R.P.M.                 |    | 1760      | Pull-up Torque                           |                     | 7.85 LB-FT                |                       |
| Hz                     | 60 | Phase     | 3                                        | Locked-rotor Torque |                           | 9.01 LB-FT            |
| NEMA Design Code       |    | B         | KVA Code                                 |                     | N                         | Starting Current      |
| Service Factor (S.F.)  |    | 1.15      | No-load Current                          |                     | 1.08 A                    |                       |
| NEMA Nom. Eff.         |    | 85.5      | Power Factor                             |                     | 67                        | Line-line Res. @ 25°C |
| Rating - Duty          |    | 40C       | AMB-CONT                                 |                     | Temp. Rise @ Rated Load   |                       |
| S.F. Amps              |    | 3.52/1.76 |                                          |                     | Temp. Rise @ S.F. Load    |                       |
|                        |    |           |                                          |                     | Locked-rotor Power Factor |                       |
|                        |    |           |                                          |                     | Rotor inertia             |                       |
|                        |    |           |                                          |                     | 0.144 lb-ft²              |                       |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 30   | 47   | 60   | 69   | 76   | 79   | 73   |
| Efficiency      | 72.1 | 81.7 | 84.7 | 85.7 | 85.5 | 84.7 | 85.6 |
| Speed           | 1791 | 1784 | 1776 | 1768 | 1759 | 1750 | 1763 |
| Line amperes    | 1.11 | 1.22 | 1.38 | 1.59 | 1.82 | 2.09 | 1.73 |

ABB Motors and Mechanical Inc.

WINDING # 35WGG004

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1760 RPM 460 V 3520M

TORQUES (LB-FT): PO=13.68 PU=7.85 LR=9.01 LRA=14.13





