

# ABB BALDOR RELIANCE III

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## Customer information packet

### ZDNM3581T

1HP, 1770RPM, 3PH, 60HZ, 143TC, 0522M, TENV, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                        |
|---------------------------------------|----------------------------------------|
| <b>Enclosure</b>                      | TENV                                   |
| <b>Frame</b>                          | 143TC                                  |
| <b>Frame Material</b>                 | Iron                                   |
| <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<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>              | 3.200 A @ 230.0 V<br>1.600 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>                | ENCODER                                |
| <b>Front Shaft Indicator</b>          | None                                   |
| <b>Heater Indicator</b>               | No Heater                              |
| <b>High Voltage Full Load Amps</b>    | 1.6 a                                  |
| <b>Insulation Class</b>               | H                                      |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | E          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 05E532     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 05WGX545   |
| <b>Layout</b>       | 05LYE532   |
| <b>Eff. date</b>    | 03-05-2026 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 03-11-2022 |

|                                      |                                   |
|--------------------------------------|-----------------------------------|
| <b>Inverter Code</b>                 | <b>Inverter Ready</b>             |
| <b>KVA Code</b>                      | <b>N</b>                          |
| <b>Lifting Lugs</b>                  | <b>Standard Lifting Lugs</b>      |
| <b>Locked Bearing Indicator</b>      | <b>Locked Bearing</b>             |
| <b>Max Speed</b>                     | <b>6000 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>0522M</b>                      |
| <b>Mounting Arrangement</b>          | <b>F1</b>                         |
| <b>Number of Poles</b>               | <b>4</b>                          |
| <b>Overall Length</b>                | <b>14.65 IN</b>                   |
| <b>Power Factor</b>                  | <b>68</b>                         |
| <b>Product Family</b>                | <b>General Purpose</b>            |
| <b>Pulley End Bearing Type</b>       | <b>Ball</b>                       |
| <b>Pulley Face Code</b>              | <b>C-Face</b>                     |
| <b>Pulley Shaft Indicator</b>        | <b>Standard</b>                   |
| <b>Rodent Screen</b>                 | <b>None</b>                       |
| <b>Service Factor</b>                | <b>1.00</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>Shaft Slinger</b>              |
| <b>Speed</b>                         | <b>1770 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>Normally Closed Thermostat</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**

| NP4028L        |              |      |  |            |       |      |      |         |  |
|----------------|--------------|------|--|------------|-------|------|------|---------|--|
| CAT.NO.        | ZDNM3581T    |      |  |            |       |      |      |         |  |
| SPEC.          | 05E532X545G1 |      |  |            |       |      |      |         |  |
| FRAME          | 143TC        |      |  | H.P.       | 1 TE  |      |      |         |  |
| VOLTS          | 230/460      |      |  |            |       |      |      |         |  |
| MAG. CUR.      | 2.14/1.07    |      |  | F.L. AMPS  |       |      |      | 3.2/1.6 |  |
| R.P.M.         | 1770         |      |  | R.P.M. MAX |       |      | 6000 |         |  |
| HZ.            | 60           | PH.  |  | 3          | CLASS |      |      | H       |  |
| SER.F.         | 1.00         | DES. |  | B          | SL HZ |      |      | 0.77    |  |
| NEMA NOM. EFF. | 85.5         | WK2  |  | 0.159      |       |      |      |         |  |
| BLWR V         |              | PH   |  | HZ         |       | AMPS |      |         |  |
| RATING         | 40C AMB-CONT |      |  |            |       |      |      |         |  |
| DE             | 6205         | ODE  |  | 6203       |       |      |      |         |  |
| CC             | 010A         | SN   |  |            |       |      |      |         |  |
|                | 1000:1 CT/VT |      |  |            |       |      |      |         |  |

**AC Induction Motor Performance Data**

Record # 87236

Preliminary Data Sheet

| Winding: 05WGX545-R005 |      |              | Type: 0522M                              |                       | Enclosure: TENV |  |
|------------------------|------|--------------|------------------------------------------|-----------------------|-----------------|--|
|                        |      |              |                                          |                       |                 |  |
| 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         |      | 3.2/1.6      | Breakdown Torque                         |                       | 13.7 LB-FT      |  |
| R.P.M.                 |      | 1770         | Pull-up Torque                           |                       | 6.77 LB-FT      |  |
| Hz                     | 60   | Phase        | 3                                        | Locked-rotor Torque   | 8.13 LB-FT      |  |
| NEMA Design Code       | B    | KVA Code     | N                                        | Starting Current      | 12.1 A          |  |
| Service Factor (S.F.)  |      |              | 1                                        | No-load Current       | 1.07 A          |  |
| NEMA Nom. Eff.         | 85.5 | Power Factor | 68                                       | Line-line Res. @ 25°C | 16.4 Ω          |  |
| Rating - Duty          |      | 40C AMB-CONT | Temp. Rise @ Rated Load                  |                       |                 |  |
|                        |      |              | Locked-rotor Power Factor                |                       |                 |  |
|                        |      |              | Rotor inertia                            |                       |                 |  |
|                        |      |              |                                          |                       | 0.159 lb-ft²    |  |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 31   | 49   | 62   | 72   | 78   | 82   |
| Efficiency      | 68.5 | 79.7 | 83.6 | 85.1 | 85.6 | 85.5 |
| Speed           | 1794 | 1789 | 1783 | 1777 | 1771 | 1765 |
| Line amperes    | 1.11 | 1.2  | 1.35 | 1.54 | 1.76 | 2    |

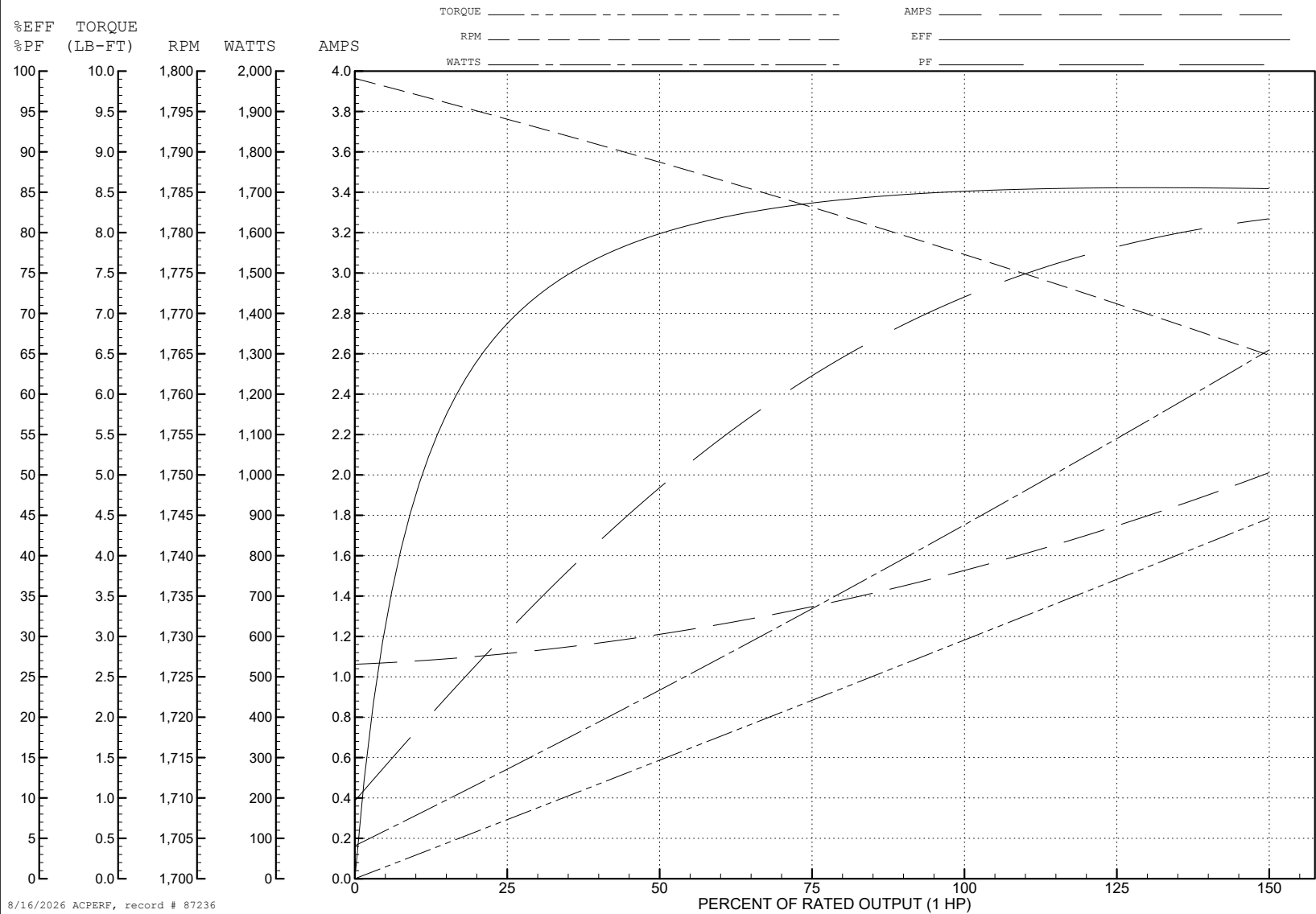
ABB Motors and Mechanical Inc.

WINDING # 05WGX545

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1770 RPM 460 V 0522M

TORQUES (LB-FT): PO=13.7 PU=6.77 LR=8.13 LRA=12.1



8/16/2026 ACPERF, record # 87236



