

# ABB BALDOR RELIANCE III

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## Customer information packet

### ZDVSNM3584T

1.5HP, 1770RPM, 3PH, 60HZ, 143TC, 0530M, TENV

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                        |
|---------------------------------------|----------------------------------------|
| <b>Enclosure</b>                      | TENV                                   |
| <b>Frame</b>                          | 145TC                                  |
| <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>             | 1.500 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>              | 4.600 A @ 230.0 V<br>2.300 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>         | 86.5 %                                 |
| <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>    | 2.3 a                                  |
| <b>Insulation Class</b>               | H                                      |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | C          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 05E532     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 05WGX543   |
| <b>Layout</b>       | 05LYE532   |
| <b>Eff. date</b>    | 09-30-2025 |
| <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>                 | Not Inverter               |
| <b>KVA Code</b>                      | M                          |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs      |
| <b>Locked Bearing Indicator</b>      | Locked Bearing             |
| <b>Max Speed</b>                     | 4500 rpm                   |
| <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>                    | 0530M                      |
| <b>Mounting Arrangement</b>          | F1                         |
| <b>Number of Poles</b>               | 4                          |
| <b>Overall Length</b>                | 14.65 IN                   |
| <b>Power Factor</b>                  | 72                         |
| <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>Service Factor</b>                | 1.00                       |
| <b>Shaft Diameter</b>                | 0.875 IN                   |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding         |
| <b>Shaft Rotation</b>                | Reversible                 |
| <b>Shaft Slinger Indicator</b>       | Shaft 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>      | Normally Closed Thermostat |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor        |
| <b>Winding Thermal 1</b>             | None                       |
| <b>Winding Thermal 2</b>             | None                       |

**Nameplate**

| NP3943L        |              |  |            |       |           |        |         |  |   |
|----------------|--------------|--|------------|-------|-----------|--------|---------|--|---|
| CAT.NO.        | ZDVSNM3584T  |  |            |       |           |        |         |  |   |
| SPEC.          | 05E532X543G1 |  |            |       |           |        |         |  |   |
| FRAME          | 145TC        |  |            | H.P.  |           | 1.5 TE |         |  |   |
| VOLTS          | 230/460      |  |            |       |           |        |         |  |   |
| MAG. CUR.      | 2.58/1.29    |  |            |       | F.L. AMPS |        | 4.6/2.3 |  |   |
| R.P.M.         | 1770         |  | R.P.M. MAX |       |           |        | 4500    |  |   |
| HZ.            | 60           |  | PH.        |       | 3         |        | CLASS   |  | H |
| SER.F.         | 1.00         |  |            | SL HZ |           | 1      |         |  |   |
| NEMA NOM. EFF. | 86.5         |  |            | WK2   |           | 0.217  |         |  |   |
| RATING         | 40C AMB-CONT |  |            |       |           |        |         |  |   |
| DE             | 6205         |  | ODE        |       | 6203      |        |         |  |   |
| CC             | 010A         |  | SN         |       |           |        |         |  |   |
|                | 1000:1 CT/VT |  |            |       |           |        |         |  |   |

**AC Induction Motor Performance Data**

Record # 82095

Typical performance - not guaranteed values

| Winding: 05WGX543-R002 |    |         | Type: 0530M                              |                     | Enclosure: TENV           |                       |
|------------------------|----|---------|------------------------------------------|---------------------|---------------------------|-----------------------|
|                        |    |         |                                          |                     |                           |                       |
| Nameplate Data         |    |         | 460 V, 60 Hz:<br>High Voltage Connection |                     |                           |                       |
| Rated Output (HP)      |    | 1.5     | Full Load Torque                         |                     | 4.48 LB-FT                |                       |
| Volts                  |    | 230/460 | Start Configuration                      |                     | direct on line            |                       |
| Full Load Amps         |    | 4.2/2.1 | Breakdown Torque                         |                     | 21.02 LB-FT               |                       |
| R.P.M.                 |    | 1770    | Pull-up Torque                           |                     | 12.29 LB-FT               |                       |
| Hz                     | 60 | Phase   | 3                                        | Locked-rotor Torque |                           | 14.9 LB-FT            |
| NEMA Design Code       |    | B       | KVA Code                                 | M                   | Starting Current          |                       |
| Service Factor (S.F.)  |    | 1       | No-load Current                          |                     | 1.29 A                    |                       |
| NEMA Nom. Eff.         |    | 86.5    | Power Factor                             |                     | 76                        | Line-line Res. @ 25°C |
| Rating - Duty          |    | 40C     | AMB-CONT                                 |                     | Temp. Rise @ Rated Load   |                       |
|                        |    |         |                                          |                     | Locked-rotor Power Factor |                       |
|                        |    |         |                                          |                     | Rotor inertia             |                       |
|                        |    |         |                                          |                     | 0.217 lb-ft²              |                       |

**Load Characteristics 460 V, 60 Hz, 1.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 33   | 54   | 68   | 76   | 81   | 84   |
| Efficiency      | 79.1 | 86.3 | 88.1 | 88.3 | 87.6 | 86.6 |
| Speed           | 1790 | 1783 | 1776 | 1769 | 1761 | 1752 |
| Line amperes    | 1.35 | 1.52 | 1.78 | 2.11 | 2.47 | 2.89 |

ABB Motors and Mechanical Inc.

WINDING # 05WGX543

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 1770 RPM 460 V 0530M

TORQUES (LB-FT): PO=21.02 PU=12.29 LR=14.9 LRA=21.32





