

# ABB BALDOR RELIANCE III

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## Customer information packet

### IDVSWDM3554

1.5HP, 1770RPM, 3PH, 60HZ, 56C, 3524M, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                        |
| <b>Frame</b>                          | 56C                                                         |
| <b>Frame Material</b>                 | Stainless 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>             | 1.500 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>                 | No Mounting                                                 |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                     |
| <b>Blower</b>                         | None                                                        |
| <b>Current @ Voltage</b>              | 2.300 A @ 460.0 V<br>4.600 A @ 230.0 V<br>4.640 A @ 208.0 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>                | NO FEEDBACK                                                 |
| <b>Front Shaft Indicator</b>          | None                                                        |
| <b>Heater Indicator</b>               | No Heater                                                   |
| <b>High Voltage Full Load Amps</b>    | 2.3 a                                                       |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | -          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35S640     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGL955   |
| <b>Layout</b>       | 35LYS640   |
| <b>Eff. date</b>    | 09-30-2022 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#18 Y     |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 03-11-2022 |

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Insulation Class</b>              | H                          |
| <b>Inverter Code</b>                 | Inverter Ready             |
| <b>KVA Code</b>                      | M                          |
| <b>Lifting Lugs</b>                  | No Lifting Lugs            |
| <b>Locked Bearing Indicator</b>      | Locked Bearing             |
| <b>Max Speed</b>                     | 4000 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>                    | 3524M                      |
| <b>Mounting Arrangement</b>          | F1                         |
| <b>Number of Poles</b>               | 4                          |
| <b>Overall Length</b>                | 13.22 IN                   |
| <b>Power Factor</b>                  | 72                         |
| <b>Product Family</b>                | Wash Down Paint Free       |
| <b>Pulley End Bearing Type</b>       | Sealed Bearing             |
| <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>                | 0.625 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**

| NP1608L      |                  |    |         |         |        |         |  |   |  |
|--------------|------------------|----|---------|---------|--------|---------|--|---|--|
| CAT NO       | IDVSWDM3554      |    |         |         |        |         |  |   |  |
| SPEC.        | 35S640L955G1     |    |         |         |        |         |  |   |  |
| FRAME        | 56C              |    |         | HP      | 1.5 TE |         |  |   |  |
| VOLTS        | 230/460          |    |         |         |        |         |  |   |  |
| MAG CUR      | 3/1.5            |    |         | FLA     |        | 4.6/2.3 |  |   |  |
| RPM          | 1770             |    |         | RPM MAX |        | 4000    |  |   |  |
| HZ           | 60               |    | PH      | 3       | CLASS  |         |  | H |  |
| SER.F.       | 1.00             |    | DES     | B       | SL HZ  |         |  | 1 |  |
| NEMA-NOM-EFF | 86.5             |    | WK2     |         | 0.174  |         |  |   |  |
| BLWR V       | PH               |    | HZ      |         | A      |         |  |   |  |
| RATING       | 40C AMB-CONT     |    |         |         |        |         |  |   |  |
| DE BRG       | 6205             |    | ODE BRG |         |        | 6203    |  |   |  |
| CC           | 010A             | SN |         |         |        |         |  |   |  |
|              | INV WDG ISR WIRE |    |         |         |        |         |  |   |  |

**AC Induction Motor Performance Data**

Record # 95394

Typical performance - not guaranteed values

| Winding: 35WGL955-R008 |  |          |  | Type: 3524M                              |  | Enclosure: TEFC     |  |                           |              |
|------------------------|--|----------|--|------------------------------------------|--|---------------------|--|---------------------------|--------------|
|                        |  |          |  |                                          |  |                     |  |                           |              |
| 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         |  | 4.6/2.3  |  | Breakdown Torque                         |  | 18.8 LB-FT          |  |                           |              |
| R.P.M.                 |  | 1770     |  | Pull-up Torque                           |  | 9.6 LB-FT           |  |                           |              |
| Hz                     |  | 60 Phase |  | 3                                        |  | Locked-rotor Torque |  | 12.6 LB-FT                |              |
| NEMA Design Code       |  | B        |  | KVA Code                                 |  | M                   |  | Starting Current          | 19.7 A       |
| Service Factor (S.F.)  |  | 1        |  |                                          |  |                     |  | No-load Current           | 1.51 A       |
| NEMA Nom. Eff.         |  | 86.5     |  | Power Factor                             |  | 72                  |  | Line-line Res. @ 25°C     | 11.8 Ω       |
| Rating - Duty          |  | 40C      |  | AMB-CONT                                 |  |                     |  | Temp. Rise @ Rated Load   | 48°C         |
|                        |  |          |  |                                          |  |                     |  | Locked-rotor Power Factor | 58.4         |
|                        |  |          |  |                                          |  |                     |  | Rotor inertia             | 0.173 lb-ft² |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 31   | 49   | 63   | 72   | 78   | 81   |
| Efficiency      | 75.1 | 83.5 | 86   | 86.5 | 85.8 | 84.8 |
| Speed           | 1792 | 1785 | 1777 | 1769 | 1760 | 1750 |
| Line amperes    | 1.56 | 1.72 | 1.97 | 2.28 | 2.65 | 3.06 |

ABB Motors and Mechanical Inc.

WINDING # 35WGL955

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 1770 RPM 460 V 3524M

TORQUES (LB-FT): PO=18.8 PU=9.6 LR=12.6 LRA=19.7





