

# ABB BALDOR RELIANCE III

---

## Customer information packet

### EMVM3554D

1.1KW, 1770RPM, 3PH, 60HZ, D90SD, LD, 3524M, TE

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                        |
| <b>Frame</b>                          | D90SD,LD                                                    |
| <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>             | 1.100 KW @ 60 HZ                                            |
| <b>Phase</b>                          | 3                                                           |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                            |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                          |
| <b>Agency Approvals</b>               | CSA<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>UR<br>WEEE           |
| <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>              | 4.640 A @ 208.0 V<br>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>                | NO FEEDBACK                                                 |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | D          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35Q175     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGL955   |
| <b>Layout</b>       | 35LYQ175   |
| <b>Eff. date</b>    | 01-05-2026 |
| <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 |

|                               |                     |
|-------------------------------|---------------------|
| Frame Prefix                  | D                   |
| Front Shaft Indicator         | None                |
| Heater Indicator              | No Heater           |
| High Voltage Full Load Amps   | 2.3 a               |
| Insulation Class              | F                   |
| Inverter Code                 | Inverter Ready      |
| KVA Code                      | M                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | Locked Bearing      |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | IEC                 |
| Motor Type                    | 3524M               |
| Mounting Arrangement          | B5                  |
| Number of Poles               | 4                   |
| Overall Length                | 12.99 IN            |
| Power Factor                  | 72                  |
| Product Family                | General Purpose     |
| Pulley End Bearing Type       | Ball                |
| Pulley Face Code              | D-Flange            |
| Pulley Shaft Indicator        | Tapped & Key        |
| Rodent Screen                 | None                |
| Service Factor                | 1.15                |
| Shaft Diameter                | 0.945 IN            |
| Shaft Ground Indicator        | No Shaft Grounding  |
| Shaft Rotation                | Reversible          |
| Shaft Slinger Indicator       | No Slinger          |
| Speed                         | 1770 rpm            |
| Speed Code                    | Single Speed        |
| Starting Method               | Direct on line      |
| Thermal Device - Bearing      | None                |
| Thermal Device - Winding      | None                |
| Vibration Sensor Indicator    | No Vibration Sensor |
| Winding Thermal 1             | None                |

Winding Thermal 2

None

**Nameplate**

| NP2672L      |               |                |      |      |      |      |
|--------------|---------------|----------------|------|------|------|------|
| CAT.NO.      | EMVM3554D     |                |      |      |      |      |
| SPEC.        | 35Q175L955G1  |                |      |      |      |      |
| IEC FRAME    | D90SD,LD      | KW             |      | 1.1  |      |      |
| VOLTS        | 230/460       |                |      |      |      |      |
| AMP          | 4.6/2.3       |                |      |      |      |      |
| RPM          | 1770          |                |      | ENCL |      | TEFC |
| HZ           | 60            | PH             |      | 3    | CL   | F    |
| SER.F.       | 1.15          | DES            |      | B    | CODE | M    |
| NEMA-NOM-EFF | 86.5          | I.P.           | 54   |      |      |      |
| RATING       | 40C AMB-CONT  |                |      |      |      |      |
| CC           | 010A          | USABLE AT 208V |      |      |      | N/A  |
| DE           | 6205          | ODE            | 6203 |      |      |      |
| SER. #       |               |                |      |      |      |      |
|              | SFA 4.68/2.34 |                |      |      |      |      |

**AC Induction Motor Performance Data**

Record # 95400

Typical performance - not guaranteed values

| Winding: 35WGL955-R011 |          |                   | Type: 3524M                              |  | Enclosure: TEFC |  |
|------------------------|----------|-------------------|------------------------------------------|--|-----------------|--|
| Nameplate Data         |          |                   | 460 V, 60 Hz:<br>High Voltage Connection |  |                 |  |
| Rated Output (KW)      |          | 1.1               | Full Load Torque                         |  | 4.39 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        | Starting Current                         |  | 19.7 A          |  |
| Service Factor (S.F.)  |          | 1.15              | No-load Current                          |  | 1.51 A          |  |
| NEMA Nom. Eff.         |          | 86.5 Power Factor | Line-line Res. @ 25°C                    |  | 11.8 Ω          |  |
| Rating - Duty          |          | 40C AMB-CONT      | Temp. Rise @ Rated Load                  |  | 47°C            |  |
| S.F. Amps              |          | 5/2.5             | Temp. Rise @ S.F. Load                   |  | 56°C            |  |
|                        |          |                   | Locked-rotor Power Factor                |  | 58.4            |  |
|                        |          |                   | Rotor inertia                            |  | 0.173 lb-ft²    |  |

**Load Characteristics 460 V, 60 Hz, 1.1 KW**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 30   | 49   | 62   | 71   | 77   | 81   | 75   |
| Efficiency      | 75   | 83.4 | 85.9 | 86.4 | 85.8 | 84.8 | 86   |
| Speed           | 1792 | 1785 | 1778 | 1769 | 1760 | 1751 | 1764 |
| Line amperes    | 1.56 | 1.71 | 1.95 | 2.25 | 2.61 | 3.02 | 2.47 |

ABB Motors and Mechanical Inc.

WINDING # 35WGL955

Typical performance - not guaranteed values.

1.1 KW 3 PH 60 HZ 1770 RPM 460 V 3524M

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





