

# ABB BALDOR RELIANCE III

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## Customer information packet

### MVM3542D

.56HP, 1725RPM, 3PH, 60HZ, D80D, 3420M, TEFC, B

Class - None

Division - Not Applicable

**Specifications**

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Enclosure                      | TEFC                                                        |
| Frame                          | D80D                                                        |
| Frame Material                 | Steel                                                       |
| Frequency                      | 60.00 Hz                                                    |
| Haz Area Class and Group       | None                                                        |
| Haz Area Division              | Not Applicable                                              |
| Motor Letter Type              | Three Phase                                                 |
| Output @ Frequency             | .750 HP @ 60 HZ                                             |
| Phase                          | 3                                                           |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                                            |
| Voltage @ Frequency            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ<br>208.0 V @ 60 HZ       |
| Agency Approvals               | CSA<br>UR                                                   |
| Ambient Temperature            | 40 °C                                                       |
| Auxiliary Box                  | NO AUXILLARY BOX                                            |
| Auxiliary Box Lead Termination | None                                                        |
| Base Indicator                 | No Mounting                                                 |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                     |
| Blower                         | None                                                        |
| Current @ Voltage              | 3.200 A @ 208.0 V<br>3.000 A @ 230.0 V<br>1.500 A @ 460.0 V |
| Design Code                    | B                                                           |
| Drip Cover                     | No Drip Cover                                               |
| Duty Rating                    | CONT                                                        |
| Efficiency @ 100% Load         | 75.5 %                                                      |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK                                                 |
| Frame Prefix                   | D                                                           |
| Front Shaft Indicator          | None                                                        |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | F          |
| Type         | AC         |
| Mech. spec.  | 34H339     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 34WGR707   |
| Layout       | 34LYH339   |
| Eff. date    | 03-09-2026 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 01-29-2021 |

|                               |                     |
|-------------------------------|---------------------|
| Heater Indicator              | No Heater           |
| High Voltage Full Load Amps   | 1.5 a               |
| Insulation Class              | B                   |
| Inverter Code                 | Not Inverter        |
| KVA Code                      | M                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | No Locked Bearing   |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | IEC                 |
| Motor Type                    | 3420M               |
| Mounting Arrangement          | B5                  |
| Number of Poles               | 4                   |
| Overall Length                | 10.73 IN            |
| Power Factor                  | 64                  |
| Product Family                | General Purpose     |
| Pulley End Bearing Type       | Ball                |
| Pulley Face Code              | D-Flange            |
| Pulley Shaft Indicator        | Tapped & Key        |
| Rodent Screen                 | None                |
| Service Factor                | 1.25                |
| Shaft Diameter                | 0.748 IN            |
| Shaft Ground Indicator        | No Shaft Grounding  |
| Shaft Rotation                | Reversible          |
| Shaft Slinger Indicator       | No Slinger          |
| Speed                         | 1725 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**

| NP1379L      |                 |      |     |        |    |      |  |   |  |  |
|--------------|-----------------|------|-----|--------|----|------|--|---|--|--|
| CAT.NO.      | MVM3542D        |      |     |        |    |      |  |   |  |  |
| SPEC.        | 34H339R707G1    |      |     |        |    |      |  |   |  |  |
| IEC FRAME    | D80D            | K.W. |     | .56 TE |    |      |  |   |  |  |
| VOLTS        | 208-230/460     |      |     |        |    |      |  |   |  |  |
| AMP          | 3.2-3/1.5       |      |     |        |    |      |  |   |  |  |
| RPM          | 1725            |      |     | I.P.   |    | 54   |  |   |  |  |
| HZ           | 60              |      | PH  |        | 3  | CL   |  | B |  |  |
| SER.F.       | 1.25            |      | DES |        | B  | CODE |  | M |  |  |
| NEMA-NOM-EFF | 75.5            |      | PF  |        | 64 |      |  |   |  |  |
| RATING       | 40C AMB-CONT    |      |     |        |    |      |  |   |  |  |
| CC           |                 |      |     |        |    |      |  |   |  |  |
| DE           | 6205            | ODE  |     | 6203   |    |      |  |   |  |  |
| SER. #       | SFA 3.6-3.4/1.7 |      |     |        |    |      |  |   |  |  |

**Parts List**

| Part number   | Description                              | Quantity |
|---------------|------------------------------------------|----------|
| SA390549      | SA 34H339R707G1                          | 1.000 ea |
| RA381001      | RA 34H339R707G1                          | 1.000 ea |
| NS2512A01     | INSULATOR, CONDUIT BOX X                 | 1.000 ea |
| 34CB3002A     | CB CAST W/.88 DIA HOLE                   | 1.000 ea |
| 34GS1029A01   | GASKET, CONDUIT BOX                      | 1.000 ea |
| 51XB1016A07   | 10-16 X 7/16 HXWSSLD SERTYB              | 2.000 ea |
| 11XW1032G06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea |
| 34EP3102A01SP | FR ENDPLATE, MACH                        | 1.000 ea |
| HW5100A03     | WAVY WASHER (W1543-017)                  | 1.000 ea |
| 34EP2503A01   | FLG MTG EP IEC F165 ENCL 205 BRG MACH.   | 1.000 ea |
| HW4600H11     | SEAL 0.938 X 1.624 X 0.250 SINGLE LIP DB | 1.000 ea |
| 34FN3002A01SP | EXTERNAL FAN, PLASTIC, .637/.639 HUB W/  | 1.000 ea |
| 34FH4002A01SP | IEC FH NO GREASER PRIMED                 | 1.000 ea |
| 51XW1032A06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 ea |
| 34CB4517      | CB LID 4 MTG HOLES .22 DIA STAMPED, FOR  | 1.000 ea |
| 34GS1031A01   | GASKET, FLAT CONDUIT BOX LID (LEXIDE)    | 1.000 ea |
| 51XW0832A07   | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 ea |
| HW2504E10     | KEY, 6 MM X 1.000                        | 1.000 ea |
| HA7000A11     | KEY RETAINER 0.750 DIA SHAFTS            | 1.000 ea |
| MJ5001A27     | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL  | 0.001 qt |
| HA4067A01     | PUSH IN DRAIN FITTING (BLACK)            | 1.000 ea |
| MG1050G01     | CELEROL MEDIUM CHARCOAL METALLIC GRAY    | 0.014 ga |
| 85XU0407S04   | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 ea |
| HA3100A48     | THRUBOLT 10-32 X 7.188                   | 4.000 ea |
| LB1624        | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |
| LC0005        | CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING  | 1.000 ea |
| MN416A01      | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea |
| NP1379L       | ALUM IEC UL CC                           | 1.000 ea |
| PK3083        | STYROFOAM PACKING CRADLE                 | 1.000 ea |
| 35PA1066      | PKG GRP, PRINT PK1008A07                 | 1.000 ea |
| PK3088        | MICROFOAM, 8"X"8 PERF. SHEETS            | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 85439

Preliminary Data Sheet

| Winding: 34WGR707-R001 |    |              | Type: 3420M                              |                           | Enclosure: TEFC       |               |       |
|------------------------|----|--------------|------------------------------------------|---------------------------|-----------------------|---------------|-------|
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                           |                       |               |       |
| Rated Output (HP)      |    | 0.75         | Full Load Torque                         |                           | 2.27 LB-FT            |               |       |
| Volts                  |    | 208-230/460  | Start Configuration                      |                           | direct on line        |               |       |
| Full Load Amps         |    | 3.2-3.0/1.5  | Breakdown Torque                         |                           | 9.9 LB-FT             |               |       |
| R.P.M.                 |    | 1725         | Pull-up Torque                           |                           | 7.1 LB-FT             |               |       |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque       |                       | 9.2 LB-FT     |       |
| NEMA Design Code       |    | B            | KVA Code                                 | M                         | Starting Current      |               | 9.8 A |
| Service Factor (S.F.)  |    | 1.25         |                                          | No-load Current           |                       | 1.08 A        |       |
| NEMA Nom. Eff.         |    | 77           | Power Factor                             | 61                        | Line-line Res. @ 25°C |               | 21 Ω  |
| Rating - Duty          |    | 40C-AMB CONT |                                          | Temp. Rise @ Rated Load   |                       | 69°C          |       |
| S.F. Amps              |    | 3.6-3.4/1.7  |                                          | Temp. Rise @ S.F. Load    |                       | 83°C          |       |
|                        |    |              |                                          | Locked-rotor Power Factor |                       | 59.2          |       |
|                        |    |              |                                          | Rotor inertia             |                       | 0.0476 LB-FT2 |       |

**Load Characteristics 460 V, 60 Hz, 0.75 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 29   | 44   | 56   | 66   | 73   | 79   | 73   |
| Efficiency      | 54.7 | 68.4 | 73.5 | 75.2 | 75.8 | 74.9 | 76.5 |
| Speed           | 1780 | 1763 | 1745 | 1726 | 1723 | 1700 | 1723 |
| Line amperes    | 1.09 | 1.15 | 1.26 | 1.4  | 1.58 | 1.79 | 1.58 |

ABB Motors and Mechanical Inc.

WINDING # 34WGR707

Typical performance - not guaranteed values.

0.75 HP 3 PH 60 HZ 1725 RPM 460 V 3420M

TORQUES (LB-FT) : PO=9.9 PU=7.1 LR=9.2 LRA=9.8







