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# Customer information packet

## VNDM3542

.75HP, 1765RPM, 3PH, 60HZ, 56C, 3514M, TENV, F1

Class - None

Division - Not Applicable

## Specifications

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Enclosure                      | TENV                                                        |
| Frame                          | 56C                                                         |
| 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            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                          |
| Agency Approvals               | UR<br>CCSA US                                               |
| 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                                                        |
| Constant Torque Speed Range    | 6                                                           |
| Current @ Voltage              | 1.210 A @ 460.0 V<br>2.420 A @ 208.0 V<br>2.420 A @ 230.0 V |
| Design Code                    | B                                                           |
| Drip Cover                     | No Drip Cover                                               |
| Duty Rating                    | CONT                                                        |
| Efficiency @ 100% Load         | 82.5 %                                                      |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK                                                 |
| Front Shaft Indicator          | None                                                        |
| Heater Indicator               | No Heater                                                   |

## Part detail

|              |            |
|--------------|------------|
| Revision     | D          |
| Type         | AC         |
| Mech. spec.  | 35E4329    |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGG069   |
| Layout       | 35LYE4329  |
| Eff. date    | 06-28-2023 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 01-10-2022 |

|                               |                     |
|-------------------------------|---------------------|
| High Voltage Full Load Amps   | 1.2 a               |
| Insulation Class              | F                   |
| Inverter Code                 | Inverter Duty       |
| KVA Code                      | K                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | Locked Bearing      |
| Max Speed                     | 2700 rpm            |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | NEMA                |
| Motor Type                    | 3514M               |
| Mounting Arrangement          | F1                  |
| Number of Poles               | 4                   |
| Overall Length                | 11.06 IN            |
| Power Factor                  | 74                  |
| Product Family                | Dirty Duty Plus     |
| Pulley End Bearing Type       | Sealed Bearing      |
| Pulley Face Code              | C-Face              |
| Pulley Shaft Indicator        | Standard            |
| Rodent Screen                 | None                |
| Service Factor                | 1.15                |
| Shaft Diameter                | 0.625 IN            |
| Shaft Ground Indicator        | No Shaft Grounding  |
| Shaft Rotation                | Reversible          |
| Shaft Slinger Indicator       | No Slinger          |
| Speed                         | 1765 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

| NP3505       |               |  |          |   |      |       |      |            |  |               |  |
|--------------|---------------|--|----------|---|------|-------|------|------------|--|---------------|--|
| CAT NO       | VNDM3542      |  |          |   |      |       |      |            |  |               |  |
| SPEC.        | 35E4329G069G1 |  |          |   |      |       | ENCL | TENV       |  |               |  |
| FRAME        | 56C           |  | HP       |   | .75  |       |      |            |  |               |  |
| VOLTS        | 230/460       |  |          |   |      |       |      |            |  |               |  |
| FLA          | 2.28/1.14     |  |          |   | I.P. |       | 56   |            |  |               |  |
| RPM          | 1765          |  | RPM MAX  |   |      |       | 2700 |            |  |               |  |
| HZ           | 60            |  | PH       | 3 |      | CLASS |      | F          |  |               |  |
| SER.F.       | 1.15          |  | DES      | B |      | CC    |      |            |  |               |  |
| NEMA-NOM-EFF | 82.5          |  |          |   |      |       |      |            |  |               |  |
| RATING       | 40C AMB-CONT  |  |          |   |      |       |      |            |  |               |  |
| DE BRG       | 6205          |  | ODE BRG  |   |      |       | 6203 |            |  |               |  |
| GREASE       | POLYREX EM    |  |          |   |      |       |      |            |  |               |  |
| INV.TYPE     |               |  | C HP FR  |   |      | 60    |      | C HP TO    |  | 90            |  |
| CT HZ FROM   | 6             |  | CT HZ TO |   |      | 60    |      | VT HZ FROM |  | 6 VT HZ TO 60 |  |
| SER.NO       |               |  |          |   |      |       |      |            |  |               |  |
|              | SFA 2.52/1.26 |  |          |   |      |       |      |            |  |               |  |

## AC Induction Motor Performance Data

Record # 87326

Typical performance - not guaranteed values

| Winding: 35WGG069-R011 |    |              | Type: 3514M  |                                          | Enclosure: TENV       |                |        |
|------------------------|----|--------------|--------------|------------------------------------------|-----------------------|----------------|--------|
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                |        |
| Rated Output (HP)      |    | .75          |              | Full Load Torque                         |                       | 2.24 LB-FT     |        |
| Volts                  |    | 230/460      |              | Start Configuration                      |                       | direct on line |        |
| Full Load Amps         |    | 2.42/1.21    |              | Breakdown Torque                         |                       | 8 LB-FT        |        |
| R.P.M.                 |    | 1765         |              | Pull-up Torque                           |                       | 4.4 LB-FT      |        |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |                       | 5.1 LB-FT      |        |
| NEMA Design Code       |    | B            | KVA Code     | K                                        | Starting Current      |                | 8.4 A  |
| Service Factor (S.F.)  |    | 1.15         |              | No-load Current                          |                       | 0.85 A         |        |
| NEMA Nom. Eff.         |    | 82.5         | Power Factor | 74                                       | Line-line Res. @ 25°C |                | 30.3 Ω |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |                       | 75°C           |        |
| S.F. Amps              |    | 2.64/1.32    |              | Temp. Rise @ S.F. Load                   |                       | 85°C           |        |
|                        |    |              |              | Locked-rotor Power Factor                |                       | 66.8           |        |
|                        |    |              |              | Rotor inertia                            |                       | 0.101 lb-ft²   |        |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 30   | 48   | 61   | 70   | 77   | 81   | 78   |
| Efficiency      | 68.4 | 79.2 | 82.1 | 82.9 | 82.4 | 81.1 | 83.1 |
| Speed           | 1791 | 1783 | 1775 | 1766 | 1757 | 1745 | 1757 |
| Line amperes    | 0.87 | 0.95 | 1.06 | 1.21 | 1.4  | 1.61 | 1.26 |

ABB Motors and Mechanical Inc.

WINDING # 35WGG069

Typical performance - not guaranteed values.

0.75 HP 3 PH 60 HZ 1765 RPM 460 V 3514M

TORQUES (LB-FT) : PO=8 PU=4.4 LR=5.1 LRA=8.4





