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# Customer information packet

## VFSWDM3543-E

.75HP, 1170RPM, 3PH, 60HZ, 56C, 3530M, TENV, F1

Class - None

Division - Not Applicable

## Specifications

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Enclosure                      | TENV                                                        |
| Frame                          | 56C                                                         |
| Frame Material                 | Stainless 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  | 1200 RPM @ 60 HZ                                            |
| Voltage @ Frequency            | 208.0 V @ 60 HZ<br>230.0 V @ 60 HZ<br>460.0 V @ 60 HZ       |
| Agency Approvals               | CSA<br>CURUSEEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>WEEE     |
| 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              | 2.800 A @ 208.0 V<br>2.700 A @ 230.0 V<br>1.350 A @ 460.0 V |
| Design Code                    | B                                                           |
| Drip Cover                     | No Drip Cover                                               |
| Duty Rating                    | CONT                                                        |
| Efficiency @ 100% Load         | 82.5 %                                                      |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |

## Part detail

|              |            |
|--------------|------------|
| Revision     | C          |
| Type         | AC         |
| Mech. spec.  | 35E4656    |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGG335   |
| Layout       | 35LYE4656  |
| Eff. date    | 11-08-2023 |
| CD Diagram   | CD0005     |
| Poles        | 06         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 09-09-2022 |

|                               |                            |
|-------------------------------|----------------------------|
| Feedback Device               | NO FEEDBACK                |
| Front Shaft Indicator         | None                       |
| Heater Indicator              | No Heater                  |
| High Voltage Full Load Amps   | 1.4 a                      |
| Insulation Class              | H                          |
| Inverter Code                 | Inverter Duty              |
| KVA Code                      | L                          |
| Lifting Lugs                  | No Lifting Lugs            |
| Locked Bearing Indicator      | Locked Bearing             |
| Max Speed                     | 1800 rpm                   |
| Motor Finish                  | UNPAINTED                  |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG                 |
| Motor Lead Termination        | Flying Leads               |
| Motor Standards               | NEMA                       |
| Motor Type                    | 3530M                      |
| Mounting Arrangement          | F1                         |
| Number of Poles               | 6                          |
| Overall Length                | 13.67 IN                   |
| Power Factor                  | 61                         |
| Product Family                | WD All SD Non-Encapsulated |
| 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                         | 1170 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

| NP4427AAA01 |               |        |            |     |      |               |      |    |       |    |      |  |       |  |  |
|-------------|---------------|--------|------------|-----|------|---------------|------|----|-------|----|------|--|-------|--|--|
| CAT #       | VFSWDM3543-E  |        |            |     |      | WT            | 45   |    | LBS   |    |      |  |       |  |  |
| SPEC        | 35E4656G335G1 |        |            |     |      | ENCL          | TENV |    |       |    |      |  |       |  |  |
| SER #       |               |        |            |     |      | CC            | 010A |    | IP    | 69 |      |  |       |  |  |
| HP          | .75           |        | MAG CUR    |     |      | 1.6-1.8/.9    |      |    |       |    |      |  |       |  |  |
| VOLTS       | 208-230/460   |        |            |     |      | NEMA NOM. EFF |      |    |       |    | 82.5 |  |       |  |  |
| AMPS        | 2.8-2.7/1.35  |        |            |     |      | PF            | 61   |    |       |    |      |  |       |  |  |
| RATING      | 40C AMB-CONT  |        |            |     |      |               |      |    |       |    |      |  |       |  |  |
| RPM         | 1170          |        |            |     |      | MAX RPM       |      |    | 1800  |    |      |  |       |  |  |
| FRAME       | 56C           |        | HZ         | 60  |      | CODE          | L    |    | CLASS | H  |      |  |       |  |  |
| SER.F.      | 1.15          | SF AMP | 3-2.9/1.45 |     |      |               | PH   | 3  | DES   | B  |      |  |       |  |  |
| DE          | 6205          |        |            | ODE |      | 6205          |      |    |       |    |      |  |       |  |  |
| LUBRICATION | POLYREX EM    |        |            |     |      |               |      |    |       |    |      |  |       |  |  |
| ID LOGO     | INVERTER TYPE |        |            |     | VPWM |               | CHP  | 60 |       | TO | 90   |  | 1.5:1 |  |  |
| ID LOGO     | WK2           | 0.217  | CT         | 15  | TO   | 60            | 4:1  |    |       |    |      |  |       |  |  |
| ID LOGO     | SL HZ         | 1.5    | VT         | 3   | TO   | 60            | 20:1 |    |       |    |      |  |       |  |  |
|             |               |        |            |     |      |               |      |    |       |    |      |  |       |  |  |
|             |               |        |            |     |      |               |      |    |       |    |      |  |       |  |  |
|             |               |        |            |     |      |               |      |    |       |    |      |  |       |  |  |
|             |               |        |            |     |      |               |      |    |       |    |      |  |       |  |  |
|             |               |        |            |     |      |               |      |    |       |    |      |  |       |  |  |
|             |               |        |            |     |      |               | QR   |    |       |    |      |  |       |  |  |
| YR          |               |        |            |     |      |               |      |    |       |    |      |  |       |  |  |

## AC Induction Motor Performance Data

Record # 87730

Preliminary Data Sheet

| Winding: 35WGG335-R001 |  |              | Type: 3530M  |                                          | Enclosure: TENV     |                         |            |        |
|------------------------|--|--------------|--------------|------------------------------------------|---------------------|-------------------------|------------|--------|
| Nameplate Data         |  |              |              | 460 V, 60 Hz:<br>High Voltage Connection |                     |                         |            |        |
| Rated Output (HP)      |  | .75          |              | Full Load Torque                         |                     | 3.38 LB-FT              |            |        |
| Volts                  |  | 208-230/460  |              | Start Configuration                      |                     | direct on line          |            |        |
| Full Load Amps         |  | 2.8-2.7/1.35 |              | Breakdown Torque                         |                     | 13.03 LB-FT             |            |        |
| R.P.M.                 |  | 1170         |              | Pull-up Torque                           |                     | 7.09 LB-FT              |            |        |
| Hz                     |  | 60           | Phase        | 3                                        | Locked-rotor Torque |                         | 8.26 LB-FT |        |
| NEMA Design Code       |  | B            |              | KVA Code                                 | L                   | Starting Current        |            | 8.66 A |
| Service Factor (S.F.)  |  | 1.15         |              | No-load Current                          |                     | 0.928 A                 |            |        |
| NEMA Nom. Eff.         |  | 82.5         | Power Factor |                                          | 61                  | Line-line Res. @ 25°C   |            | 22.1 Ω |
| Rating - Duty          |  | 40C          |              | AMB-CONT                                 |                     | Temp. Rise @ Rated Load |            | 70°C   |
| S.F. Amps              |  | 3-2.9/1.45   |              | Temp. Rise @ S.F. Load                   |                     | 80°C                    |            |        |
|                        |  |              |              | Locked-rotor Power Factor                |                     | 46.9                    |            |        |
|                        |  |              |              | Rotor inertia                            |                     | 0.218 lb-ft²            |            |        |

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

| % of Rated Load | 25    | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|-------|------|------|------|------|------|------|
| Power Factor    | 28    | 43   | 55   | 64   | 70   | 74   | 68   |
| Efficiency      | 67.6  | 78.4 | 81.4 | 82.1 | 81.5 | 80.3 | 81.7 |
| Speed           | 1194  | 1187 | 1181 | 1173 | 1165 | 1156 | 1168 |
| Line amperes    | 0.953 | 1.04 | 1.17 | 1.34 | 1.54 | 1.77 | 1.46 |

ABB Motors and Mechanical Inc.

WINDING # 35WGG335

Typical performance - not guaranteed values.

0.75 HP 3 PH 60 HZ 1170 RPM 460 V 3530M

TORQUES (LB-FT): PO=13.03 PU=7.09 LR=8.26 LRA=8.66





