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# Customer information packet

## VFSWDM3554T-E

1.5HP, 1770RPM, 3PH, 60HZ, 145TC, 3526M, TEFC

Class - None

Division - Not Applicable

## Specifications

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Enclosure                      | TEFC                                                        |
| Frame                          | 145TC                                                       |
| 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             | 1.500 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               | CSA EEV<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              | 4.200 A @ 230.0 V<br>2.100 A @ 460.0 V                      |
| Design Code                    | B                                                           |
| Drip Cover                     | No Drip Cover                                               |
| Duty Rating                    | CONT                                                        |
| Efficiency @ 100% Load         | 86.5 %                                                      |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK                                                 |
| Front Shaft Indicator          | None                                                        |

## Part detail

|              |            |
|--------------|------------|
| Revision     | B          |
| Type         | AC         |
| Mech. spec.  | 35E4709    |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGZ819   |
| Layout       | 35LYE4709  |
| Eff. date    | 07-23-2024 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18 Y     |
| Proprietary  | False      |
| Created date | 03-11-2022 |

|                               |                        |
|-------------------------------|------------------------|
| Heater Indicator              | No Heater              |
| High Voltage Full Load Amps   | 2.1 a                  |
| Insulation Class              | H                      |
| Inverter Code                 | Inverter Ready         |
| KVA Code                      | M                      |
| Lifting Lugs                  | No Lifting Lugs        |
| Locked Bearing Indicator      | Locked Bearing         |
| Max Speed                     | 2700 rpm               |
| Motor Finish                  | UNPAINTED              |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG             |
| Motor Lead Termination        | Flying Leads           |
| Motor Standards               | NEMA                   |
| Motor Type                    | 3526M                  |
| Mounting Arrangement          | F1                     |
| Number of Poles               | 4                      |
| Overall Length                | 14.03 IN               |
| Power Factor                  | 76                     |
| Product Family                | WD All SS 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                | 0.875 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

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### Nameplate

| NP4427AAA01 |               |       |        |          |    |               |          |     |       |      |      |    |  |       |  |  |
|-------------|---------------|-------|--------|----------|----|---------------|----------|-----|-------|------|------|----|--|-------|--|--|
| CAT #       | VFSWDM3554T-E |       |        |          |    | WT            | 41       |     | LBS   |      |      |    |  |       |  |  |
| SPEC        | 35E4709Z819G1 |       |        |          |    | ENCL          | TEFC     |     |       |      |      |    |  |       |  |  |
| SER #       |               |       |        |          |    | CC            | 010A     |     | IP    | 69   |      |    |  |       |  |  |
| HP          | 1.5           |       |        | MAG CUR  |    |               | 2.5/1.25 |     |       |      |      |    |  |       |  |  |
| VOLTS       | 230/460       |       |        |          |    | NEMA NOM. EFF |          |     |       |      | 86.5 |    |  |       |  |  |
| AMPS        | 4.2/2.1       |       |        |          |    |               |          | PF  | 76    |      |      |    |  |       |  |  |
| RATING      | 40C AMB-CONT  |       |        |          |    |               |          |     |       |      |      |    |  |       |  |  |
| RPM         | 1770          |       |        |          |    | MAX RPM       |          |     |       | 2700 |      |    |  |       |  |  |
| FRAME       | 145TC         |       | HZ     | 60       |    | CODE          | M        |     | CLASS | H    |      |    |  |       |  |  |
| SER.F.      | 1.15          |       | SF AMP | 4.7/2.35 |    |               |          | 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           | 0.189 |        | CT       | 15 |               | TO       | 60  |       | 4:1  |      |    |  |       |  |  |
| ID LOGO     | SL HZ         | 1     |        | VT       | 3  |               | TO       | 60  |       | 20:1 |      |    |  |       |  |  |
|             |               |       |        |          |    |               |          |     |       |      |      |    |  |       |  |  |
|             |               |       |        |          |    |               |          |     |       |      |      |    |  |       |  |  |
|             |               |       |        |          |    |               |          |     |       |      |      |    |  |       |  |  |
|             |               |       |        |          |    |               |          |     |       |      |      |    |  |       |  |  |
|             |               |       |        |          |    |               |          | QR  |       |      |      |    |  |       |  |  |
| YR          |               |       |        |          |    |               |          |     |       |      |      |    |  |       |  |  |

## AC Induction Motor Performance Data

Record # 87353

Preliminary Data Sheet

| Winding: 35WGZ819-R001 |    |              | Type: 3526M  |                                          | Enclosure: TEFC       |                |         |
|------------------------|----|--------------|--------------|------------------------------------------|-----------------------|----------------|---------|
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                |         |
| Rated Output (HP)      |    | 1.5          |              | Full Load Torque                         |                       | 4.47 LB-FT     |         |
| Volts                  |    | 230/460      |              | Start Configuration                      |                       | direct on line |         |
| Full Load Amps         |    | 4.2/2.1      |              | Breakdown Torque                         |                       | 18.92 LB-FT    |         |
| R.P.M.                 |    | 1770         |              | Pull-up Torque                           |                       | 9.99 LB-FT     |         |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |                       | 12.27 LB-FT    |         |
| NEMA Design Code       |    | B            | KVA Code     | M                                        | Starting Current      |                | 19.68 A |
| Service Factor (S.F.)  |    | 1.15         |              | No-load Current                          |                       | 1.24 A         |         |
| NEMA Nom. Eff.         |    | 86.5         | Power Factor | 76                                       | Line-line Res. @ 25°C |                | 11.5 Ω  |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |                       | 37°C           |         |
| S.F. Amps              |    | 4.7/2.35     |              | Temp. Rise @ S.F. Load                   |                       | 44°C           |         |
|                        |    |              |              | Locked-rotor Power Factor                |                       | 59.3           |         |
|                        |    |              |              | Rotor inertia                            |                       | 0.188 lb-ft²   |         |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 36   | 55   | 68   | 76   | 81   | 84   | 79   |
| Efficiency      | 77.4 | 85.3 | 87.5 | 87.7 | 87.2 | 86   | 87.4 |
| Speed           | 1793 | 1786 | 1780 | 1772 | 1765 | 1756 | 1768 |
| Line amperes    | 1.32 | 1.5  | 1.78 | 2.11 | 2.49 | 2.92 | 2.34 |

ABB Motors and Mechanical Inc.

WINDING # 35WGZ819

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 1770 RPM 460 V 3526M

TORQUES (LB-FT): PO=18.92 PU=9.99 LR=12.27 LRA=19.68







