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# Customer information packet

## VSPJMM3157T

2HP, 1770RPM, 3PH, 60HZ, 145JM, 3538M, ODP, F1

Class - None

Division - Not Applicable

## Specifications

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Enclosure                      | ODP                                                         |
| Frame                          | 145JM                                                       |
| 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             | 2.000 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               | 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              | 2.700 A @ 460.0 V<br>5.400 A @ 230.0 V<br>5.800 A @ 208.0 V |
| Design Code                    | B                                                           |
| Drip Cover                     | Drip Cover                                                  |
| Duty Rating                    | CONT                                                        |
| Efficiency @ 100% Load         | 88.5 %                                                      |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK                                                 |
| Front Shaft Indicator          | None                                                        |
| Heater Indicator               | No Heater                                                   |
| High Voltage Full Load Amps    | 2.7 a                                                       |
| Insulation Class               | F                                                           |

## Part detail

|              |            |
|--------------|------------|
| Revision     | A          |
| Type         | AC         |
| Mech. spec.  | 35EE458    |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGZ966   |
| Layout       | 35LYEE458  |
| Eff. date    | 11-19-2025 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 08-07-2025 |

|                                      |                      |
|--------------------------------------|----------------------|
| <b>Inverter Code</b>                 | <b>Inverter Duty</b> |
| <b>KVA Code</b>                      | L                    |
| <b>Lifting Lugs</b>                  | No Lifting Lugs      |
| <b>Locked Bearing Indicator</b>      | Locked Bearing       |
| <b>Max Speed</b>                     | 2700 rpm             |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 18 AWG           |
| <b>Motor Lead Termination</b>        | Flying Leads         |
| <b>Motor Standards</b>               | NEMA                 |
| <b>Motor Type</b>                    | 3538M                |
| <b>Mounting Arrangement</b>          | F1                   |
| <b>Number of Poles</b>               | 4                    |
| <b>Overall Length</b>                | 17.66 IN             |
| <b>Power Factor</b>                  | 75                   |
| <b>Product Family</b>                | General Purpose      |
| <b>Pulley End Bearing Type</b>       | Ball                 |
| <b>Pulley Face Code</b>              | C-Face               |
| <b>Pulley Shaft Indicator</b>        | Tapped & Key         |
| <b>Rodent Screen</b>                 | Included             |
| <b>RoHS Status</b>                   | ROHS COMPLIANT       |
| <b>Service Factor</b>                | 1.25                 |
| <b>Shaft Diameter</b>                | 0.875 IN             |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding   |
| <b>Shaft Rotation</b>                | Reversible           |
| <b>Shaft Slinger Indicator</b>       | Shaft Slinger        |
| <b>Speed</b>                         | 1770 rpm             |
| <b>Speed Code</b>                    | Single Speed         |
| <b>Starting Method</b>               | Direct on line       |
| <b>Thermal Device - Bearing</b>      | None                 |
| <b>Thermal Device - Winding</b>      | None                 |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor  |
| <b>Winding Thermal 1</b>             | None                 |
| <b>Winding Thermal 2</b>             | None                 |

## Nameplate

| NP4423A01A01L |               |         |           |      |    |               |       |      |     |       |      |  |  |
|---------------|---------------|---------|-----------|------|----|---------------|-------|------|-----|-------|------|--|--|
| CAT #         | VSPJMM3157T   |         |           |      |    | WGT           | 56    | LBS  |     |       |      |  |  |
| SPEC          | 35EE458Z966   |         |           |      |    | ENCL          | ODP   |      |     |       |      |  |  |
| SER #         |               |         |           |      |    | CC            | 010A  | IP   | 23  |       |      |  |  |
| HP            | 2             | MAG CUR |           |      |    | 3/1.5         |       |      |     |       |      |  |  |
| VOLTS         | 230/460       |         |           |      |    | NEMA NOM. EFF |       |      |     |       | 88.5 |  |  |
| AMPS          | 5.4/2.7       |         |           |      |    |               | PF    | 75   |     |       |      |  |  |
| RATING        | 40C AMB-CONT  |         |           |      |    |               |       |      |     |       |      |  |  |
| RPM           | 1770          |         |           |      |    | MAX RPM       |       | 2700 |     |       |      |  |  |
| FRAME         | 145JM         | HZ      | 60        | CODE |    | L             | CLASS |      | F   |       |      |  |  |
| SER.F.        | 1.25          | SF AMP  | 6.75/3.37 |      |    |               | PH    | 3    | DES | B     |      |  |  |
| DE            | 6206          |         | ODE       | 6203 |    |               |       |      |     |       |      |  |  |
| LUBRICATION   | POLYREX EM    |         |           |      |    |               |       |      |     |       |      |  |  |
| ID LOGO       | INVERTER TYPE |         |           | VPWM |    | CHP           | 60    | TO   | 90  | 1.5:1 |      |  |  |
| ID LOGO       | WK2           | 0.188   | CT        | 6    | TO | 60            | 10:1  |      |     |       |      |  |  |
| ID LOGO       | SL HZ         | 1.1     | VT        | 3    | TO | 60            | 20:1  |      |     |       |      |  |  |
|               |               |         |           |      |    |               |       |      |     |       |      |  |  |
|               |               |         |           |      |    |               |       |      |     |       |      |  |  |
|               |               |         |           |      |    |               |       |      |     |       |      |  |  |
|               |               |         |           |      |    |               |       |      |     |       |      |  |  |
|               |               |         |           |      |    |               |       |      |     |       |      |  |  |
|               |               |         |           |      |    |               | QR    |      |     |       |      |  |  |
| YR            |               |         |           |      |    |               |       |      |     |       |      |  |  |

## AC Induction Motor Performance Data

Record # 96359

Preliminary Data Sheet

| Winding: 35WGZ966-R001 |    |              | Type: 3538M                              |                           | Enclosure: OPSB  |                       |        |        |
|------------------------|----|--------------|------------------------------------------|---------------------------|------------------|-----------------------|--------|--------|
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                           |                  |                       |        |        |
| Rated Output (HP)      |    | 2            | Full Load Torque                         |                           | 5.97 LB-FT       |                       |        |        |
| Volts                  |    | 230/460      | Start Configuration                      |                           | direct on line   |                       |        |        |
| Full Load Amps         |    | 5.4/2.7      | Breakdown Torque                         |                           | 24.8 LB-FT       |                       |        |        |
| R.P.M.                 |    | 1770         | Pull-up Torque                           |                           | 10.9 LB-FT       |                       |        |        |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque       |                  | 16 LB-FT              |        |        |
| NEMA Design Code       |    | B            | KVA Code                                 | L                         | Starting Current |                       | 24.2 A |        |
| Service Factor (S.F.)  |    | 1.15         |                                          | No-load Current           |                  | 1.48 A                |        |        |
| NEMA Nom. Eff.         |    | 88.5         | Power Factor                             |                           | 75               | Line-line Res. @ 25°C |        | 7.62 Ω |
| Rating - Duty          |    | 40C AMB-CONT |                                          | Temp. Rise @ Rated Load   |                  | 31°C                  |        |        |
| S.F. Amps              |    | 6/3          |                                          | Temp. Rise @ S.F. Load    |                  | 36°C                  |        |        |
|                        |    |              |                                          | Locked-rotor Power Factor |                  | 51.9                  |        |        |
|                        |    |              |                                          | Rotor inertia             |                  | 0.274 lb-ft²          |        |        |

## Load Characteristics 460 V, 60 Hz, 2 HP

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 37   | 58   | 71   | 78   | 83   | 86   | 81   |
| Efficiency      | 80.5 | 87.4 | 88.8 | 88.9 | 88.2 | 87.1 | 88.5 |
| Speed           | 1791 | 1785 | 1778 | 1770 | 1761 | 1753 | 1765 |
| Line amperes    | 1.59 | 1.86 | 2.25 | 2.7  | 3.21 | 3.78 | 3.01 |

ABB Motors and Mechanical Inc.

WINDING # 35WGZ966

Typical performance - not guaranteed values.

2 HP 3 PH 60 HZ 1770 RPM 460 V 3538M

TORQUES (LB-FT): PO=24.8 PU=10.9 LR=16 LRA=24.2





