



---

# Customer information packet

## VSPM2514T

20HP, 3525RPM, 3PH, 60HZ, 254TC, 3940M, OPSB, F

Class - None

Division - Not Applicable

## Specifications

|                                |                                          |
|--------------------------------|------------------------------------------|
| Enclosure                      | ODP                                      |
| Frame                          | 254TC                                    |
| 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             | 20.000 HP @ 60 HZ                        |
| Phase                          | 3                                        |
| Synchronous Speed @ Frequency  | 3600 RPM @ 60 HZ                         |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ       |
| Agency Approvals               | CURUSEEV<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              | 23.000 A @ 460.0 V<br>46.000 A @ 230.0 V |
| Design Code                    | A                                        |
| Drip Cover                     | No Drip Cover                            |
| Duty Rating                    | CONT                                     |
| Efficiency @ 100% Load         | 92.4 %                                   |
| Electrically Isolated Bearing  | Not Electrically Isolated                |
| Feedback Device                | NO FEEDBACK                              |
| Front Shaft Indicator          | None                                     |
| Heater Indicator               | No Heater                                |
| High Voltage Full Load Amps    | 23.0 a                                   |

## Part detail

|              |            |
|--------------|------------|
| Revision     | B          |
| Type         | AC         |
| Mech. spec.  | 39E764     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 39WGX341   |
| Layout       | 39LYE764   |
| Eff. date    | 12-12-2025 |
| CD Diagram   | CD0005     |
| Poles        | 02         |
| Leads        | 9#10       |
| Proprietary  | False      |
| Created date | 11-16-2023 |

|                               |                       |
|-------------------------------|-----------------------|
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Duty         |
| KVA Code                      | J                     |
| Lifting Lugs                  | Standard Lifting Lugs |
| Locked Bearing Indicator      | Locked Bearing        |
| Max Speed                     | 5400 rpm              |
| Motor Lead Quantity/Wire Size | 9 @ 10 AWG            |
| Motor Lead Termination        | Flying Leads          |
| Motor Standards               | NEMA                  |
| Motor Type                    | 3940M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 2                     |
| Overall Length                | 21.60 IN              |
| Power Factor                  | 89                    |
| Product Family                | General Purpose       |
| Pulley End Bearing Type       | Ball                  |
| Pulley Face Code              | C-Face                |
| Pulley Shaft Indicator        | Standard              |
| Rodent Screen                 | None                  |
| RoHS Status                   | ROHS COMPLIANT        |
| Service Factor                | 1.15                  |
| Shaft Diameter                | 1.625 IN              |
| Shaft Ground Indicator        | No Shaft Grounding    |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | No Slinger            |
| Speed                         | 3525 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                  |



## AC Induction Motor Performance Data

Record # 101130

Typical performance - not guaranteed values

| Winding: 39WGX341-R005 |    |              | Type: 3940M                              |                           | Enclosure: OPSB       |             |         |
|------------------------|----|--------------|------------------------------------------|---------------------------|-----------------------|-------------|---------|
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                           |                       |             |         |
| Rated Output (HP)      |    | 20           | Full Load Torque                         |                           | 29.7 LB-FT            |             |         |
| Volts                  |    | 230/460      | Start Configuration                      |                           | direct on line        |             |         |
| Full Load Amps         |    | 46/23        | Breakdown Torque                         |                           | 131 LB-FT             |             |         |
| R.P.M.                 |    | 3525         | Pull-up Torque                           |                           | 45 LB-FT              |             |         |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque       |                       | 68 LB-FT    |         |
| NEMA Design Code       |    | A            | KVA Code                                 | J                         | Starting Current      |             | 200 A   |
| Service Factor (S.F.)  |    | 1.15         |                                          | No-load Current           |                       | 8.2 A       |         |
| NEMA Nom. Eff.         |    | 92.4         | Power Factor                             | 89                        | Line-line Res. @ 25°C |             | 0.347 Ω |
| Rating - Duty          |    | 40C AMB-CONT |                                          | Temp. Rise @ Rated Load   |                       | 28°C        |         |
| S.F. Amps              |    | 52/26        |                                          | Temp. Rise @ S.F. Load    |                       | 34°C        |         |
|                        |    |              |                                          | Locked-rotor Power Factor |                       | 28.6        |         |
|                        |    |              |                                          | Rotor inertia             |                       | 1.02 lb-ft² |         |

## Load Characteristics 460 V, 60 Hz, 20 HP

| % of Rated Load | 25   | 50    | 75    | 100   | 125   | 150   | S.F. |
|-----------------|------|-------|-------|-------|-------|-------|------|
| Power Factor    | 56   | 76    | 85    | 89    | 90    | 90    | 90   |
| Efficiency      | 86.5 | 91.5  | 92.6  | 92.7  | 92.4  | 91.7  | 92.5 |
| Speed           | 3584 | 3569  | 3553  | 3537  | 3521  | 3501  | 3527 |
| Line amperes    | 9.94 | 13.67 | 18.01 | 22.81 | 28.13 | 33.66 | 26   |

ABB Motors and Mechanical Inc.

WINDING # 39WGX341

Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 3525 RPM 460 V 3940M

TORQUES (LB-FT) : PO=131 PU=45 LR=68 LRA=200





