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# Customer information packet

## VEM3313T

10HP, 1770RPM, 3PH, 60HZ, 215TC, 3742M, ODP, F1

Class - None

Division - Not Applicable

## Specifications

|                                |                                                                |
|--------------------------------|----------------------------------------------------------------|
| Enclosure                      | ODP                                                            |
| Frame                          | 215TC                                                          |
| 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             | 10.000 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               | CSA EEV<br>CURUSEEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>UR      |
| 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              | 25.000 A @ 230.0 V<br>26.000 A @ 208.0 V<br>12.500 A @ 460.0 V |
| Design Code                    | B                                                              |
| Drip Cover                     | Drip Cover                                                     |
| Duty Rating                    | CONT                                                           |
| Efficiency @ 100% Load         | 91.7 %                                                         |
| Electrically Isolated Bearing  | Not Electrically Isolated                                      |
| Feedback Device                | NO FEEDBACK                                                    |

## Part detail

|              |            |
|--------------|------------|
| Revision     | S          |
| Type         | AC         |
| Mech. spec.  | 37K446     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 37WGT853   |
| Layout       | 37LYK446   |
| Eff. date    | 06-11-2024 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#14       |
| Proprietary  | False      |
| Created date | 04-29-2015 |

|                               |                       |
|-------------------------------|-----------------------|
| Front Face Code               | Standard              |
| Front Shaft Indicator         | None                  |
| Heater Indicator              | No Heater             |
| High Voltage Full Load Amps   | 12.5 a                |
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Ready        |
| KVA Code                      | H                     |
| Lifting Lugs                  | Standard Lifting Lugs |
| Locked Bearing Indicator      | Locked Bearing        |
| Motor Lead Exit               | Ko Box                |
| Motor Lead Quantity/Wire Size | 9 @ 14 AWG            |
| Motor Lead Termination        | Flying Leads          |
| Motor Standards               | NEMA                  |
| Motor Type                    | 3742M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 4                     |
| Overall Length                | 20.03 IN              |
| Power Factor                  | 82                    |
| 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                | 1.375 IN              |
| Shaft Extension Location      | Pulley End            |
| 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                |

## Nameplate

| NP3553LUA                 |                                |      |     |      |   |       |    |       |  |
|---------------------------|--------------------------------|------|-----|------|---|-------|----|-------|--|
| CAT.NO.                   | VEM3313T                       |      |     |      |   |       |    |       |  |
| SPEC.                     | 37K446T853G1                   |      |     |      |   |       |    |       |  |
| HP                        | 10                             |      |     |      |   |       |    |       |  |
| VOLTS                     | 230/460                        |      |     |      |   |       |    |       |  |
| AMPS                      | 25/12.5                        |      |     |      |   |       |    |       |  |
| RPM                       | 1770                           |      |     |      |   |       |    |       |  |
| FRAME                     | 215TC                          |      | HZ  | 60   |   |       | PH | 3     |  |
| SF                        | 1.15                           | CODE | H   | DES  | B | CLASS | F  |       |  |
| NEMA NOM. EFF             | 91.7                           | PF   | 82  |      |   |       |    |       |  |
| RATING                    | 40C AMB-CONT                   |      |     |      |   |       |    |       |  |
| CC                        | 010A                           |      |     |      |   |       |    |       |  |
| ENCL                      | ODP                            | SN   |     |      |   |       |    |       |  |
| DE                        | 6307                           |      | ODE | 6206 |   |       |    |       |  |
| VPWM INVERTER READY       |                                |      |     |      |   |       |    |       |  |
| CT30-60(2:1) VT3-60(20:1) |                                |      |     |      |   |       |    |       |  |
| USABLE AT                 | 50HZ 7.5HP 190/380V 26.8/14.4A |      |     |      |   |       |    | SF1.0 |  |

## AC Induction Motor Performance Data

Record # 53404

Typical performance - not guaranteed values

| Winding: 37WGT853-R026 |    |         | Type: 3742M                              |                     | Enclosure: OPSB           |             |             |
|------------------------|----|---------|------------------------------------------|---------------------|---------------------------|-------------|-------------|
| Nameplate Data         |    |         | 460 V, 60 Hz:<br>High Voltage Connection |                     |                           |             |             |
| Rated Output (HP)      |    | 10      | Full Load Torque                         |                     | 29.7 LB-FT                |             |             |
| Volts                  |    | 230/460 | Start Configuration                      |                     | direct on line            |             |             |
| Full Load Amps         |    | 25/12.5 | Breakdown Torque                         |                     | 87.58 LB-FT               |             |             |
| R.P.M.                 |    | 1770    | Pull-up Torque                           |                     | 44.18 LB-FT               |             |             |
| Hz                     | 60 | Phase   | 3                                        | Locked-rotor Torque |                           | 51.57 LB-FT |             |
| NEMA Design Code       |    | B       | KVA Code                                 | H                   | Starting Current          |             | 86.72 A     |
| Service Factor (S.F.)  |    | 1.15    | No-load Current                          |                     | 4.91 A                    |             |             |
| NEMA Nom. Eff.         |    | 91.7    | Power Factor                             | 82                  | Line-line Res. @ 25°C     |             | 1.18 Ω      |
| Rating - Duty          |    | 40C     | AMB-CONT                                 |                     | Temp. Rise @ Rated Load   |             | 34°C        |
| S.F. Amps              |    |         |                                          |                     | Temp. Rise @ S.F. Load    |             | 43°C        |
|                        |    |         |                                          |                     | Locked-rotor Power Factor |             | 37.9        |
|                        |    |         |                                          |                     | Rotor inertia             |             | 1.03 LB-FT2 |

## Load Characteristics 460 V, 60 Hz, 10 HP

| % of Rated Load | 25   | 50   | 75   | 100   | 125  | 150   | S.F. |
|-----------------|------|------|------|-------|------|-------|------|
| Power Factor    | 48   | 70   | 80   | 84    | 86   | 86    | 83   |
| Efficiency      | 87.7 | 91.8 | 92.2 | 91.7  | 90.8 | 89.5  | 91.4 |
| Speed           | 1793 | 1785 | 1777 | 1769  | 1759 | 1749  | 1763 |
| Line amperes    | 5.6  | 7.31 | 9.53 | 12.15 | 15   | 18.24 | 14.2 |

ABB Motors and Mechanical Inc.

WINDING # 37WGT853

Typical performance - not guaranteed values.

10 HP 3 PH 60 HZ 1770 RPM 460 V 3742M

TORQUES (LB-FT): PO=87.58 PU=44.18 LR=51.57 LRA=86.72





