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# Customer information packet

## EBM3704TY

3HP, 1160RPM, 3PH, 60HZ, 213T, 3738M, TEFC, F1

Class - None

Division - Not Applicable

## Specifications

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Enclosure                      | TEFC                                                        |
| Frame                          | 213T                                                        |
| 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             | 3.000 HP @ 60 HZ                                            |
| Phase                          | 3                                                           |
| Synchronous Speed @ Frequency  | 1200 RPM @ 60 HZ                                            |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                          |
| Agency Approvals               | NEMA PREMIUM<br>CURUSEEV                                    |
| Ambient Temperature            | 40 °C                                                       |
| Auxillary Box                  | No Auxillary Box                                            |
| Auxillary Box Lead Termination | None                                                        |
| Base Indicator                 | Rigid                                                       |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                     |
| Blower                         | None                                                        |
| Brake Torque                   | 35.0 lb-ft                                                  |
| Current @ Voltage              | 4.600 A @ 460.0 V<br>9.200 A @ 230.0 V<br>9.600 A @ 208.0 V |
| Design Code                    | B                                                           |
| Drip Cover                     | No Drip Cover                                               |
| Duty Rating                    | CONT                                                        |
| Efficiency @ 100% Load         | 89.5 %                                                      |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK                                                 |
| Front Face Code                | Brake Mounting                                              |
| Front Shaft Indicator          | None                                                        |

## Part detail

|              |            |
|--------------|------------|
| Revision     | H          |
| Type         | AC         |
| Mech. spec.  | 37A021     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 37WGS519   |
| Layout       | 37LYA021   |
| Eff. date    | 05-01-2024 |
| CD Diagram   | CD0005     |
| Poles        | 06         |
| Leads        | 9#14       |
| Proprietary  | False      |
| Created date | 10-01-2010 |

|                               |                       |
|-------------------------------|-----------------------|
| Heater Indicator              | No Heater             |
| High Voltage Full Load Amps   | 4.6 a                 |
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Ready        |
| IP Rating                     | NONE                  |
| KVA Code                      | L                     |
| Lifting Lugs                  | Standard Lifting Lugs |
| Locked Bearing Indicator      | No 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                    | 3738M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 6                     |
| Overall Length                | 27.01 IN              |
| Power Factor                  | 68                    |
| Product Family                | General Purpose       |
| Pulley End Bearing Type       | Ball                  |
| Pulley Face Code              | Standard              |
| 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                         | 1160 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

| NP1259L      |              |      |     |      |   |    |   |    |   |  |  |
|--------------|--------------|------|-----|------|---|----|---|----|---|--|--|
| CAT.NO.      | EBM3704TY    |      |     |      |   |    |   |    |   |  |  |
| SPEC.        | 37A021S519G2 |      |     |      |   |    |   |    |   |  |  |
| HP           | 3            |      |     |      |   |    |   |    |   |  |  |
| VOLTS        | 230/460      |      |     |      |   |    |   |    |   |  |  |
| AMP          | 9.2/4.6      |      |     |      |   |    |   |    |   |  |  |
| RPM          | 1160         |      |     |      |   |    |   |    |   |  |  |
| FRAME        | 213T         |      | HZ  | 60   |   |    |   | PH | 3 |  |  |
| SER.F.       | 1.15         | CODE | L   | DES  | B | CL | F |    |   |  |  |
| NEMA-NOM-EFF | 89.5         | PF   | 68  |      |   |    |   |    |   |  |  |
| RATING       | 40C AMB-CONT |      |     |      |   |    |   |    |   |  |  |
| CC           | 010A         |      |     |      |   |    |   |    |   |  |  |
| DE           | 6307         |      | ODE | 6306 |   |    |   |    |   |  |  |
| ENCL         | TEFC         | SN   |     |      |   |    |   |    |   |  |  |

**AC Induction Motor Performance Data**

Record # 35282

Typical performance - not guaranteed values

| Winding: 37WGS519-R002 |    |         | Type: 3738M                              |                     | Enclosure: TEFC  |                           |      |              |
|------------------------|----|---------|------------------------------------------|---------------------|------------------|---------------------------|------|--------------|
| Nameplate Data         |    |         | 460 V, 60 Hz:<br>High Voltage Connection |                     |                  |                           |      |              |
| Rated Output (HP)      |    | 3       | Full Load Torque                         |                     | 13.4 LB-FT       |                           |      |              |
| Volts                  |    | 230/460 | Start Configuration                      |                     | direct on line   |                           |      |              |
| Full Load Amps         |    | 9.2/4.6 | Breakdown Torque                         |                     | 50.4 LB-FT       |                           |      |              |
| R.P.M.                 |    | 1160    | Pull-up Torque                           |                     | 31.8 LB-FT       |                           |      |              |
| Hz                     | 60 | Phase   | 3                                        | Locked-rotor Torque |                  | 33.9 LB-FT                |      |              |
| NEMA Design Code       |    | B       | KVA Code                                 | L                   | Starting Current |                           | 34 A |              |
| Service Factor (S.F.)  |    | 1.15    |                                          | No-load Current     |                  | 2.56 A                    |      |              |
| NEMA Nom. Eff.         |    | 89.5    | Power Factor                             |                     | 68               | Line-line Res. @ 25°C     |      | 2.67 Ω       |
| Rating - Duty          |    | 40C     |                                          | AMB-CONT            |                  | Temp. Rise @ Rated Load   |      | 38°C         |
| S.F. Amps              |    |         |                                          |                     |                  | Temp. Rise @ S.F. Load    |      | 45°C         |
|                        |    |         |                                          |                     |                  | Locked-rotor Power Factor |      | 22.9         |
|                        |    |         |                                          |                     |                  | Rotor inertia             |      | 0.945 LB-FT2 |

**Load Characteristics 460 V, 60 Hz, 3 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 30   | 50   | 62   | 69   | 73   | 75   | 70   |
| Efficiency      | 82.1 | 88.6 | 89.5 | 89.8 | 89.1 | 87.6 | 89.1 |
| Speed           | 1193 | 1186 | 1178 | 1170 | 1160 | 1149 | 1166 |
| Line amperes    | 2.74 | 3.19 | 3.82 | 4.53 | 5.44 | 6.41 | 5.14 |

ABB Motors and Mechanical Inc.

WINDING # 37WGS519

Typical performance - not guaranteed values.

3 HP 3 PH 60 HZ 1160 RPM 460 V 3738M

TORQUES (LB-FT): PO=50.4 PU=31.8 LR=33.9 LRA=34





