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# Customer information packet

## CM3542

.75HP, 1725RPM, 3PH, 60HZ, 56C, 3420M, TEFC, F1

Class - None

Division - Not Applicable

## Specifications

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Enclosure                      | TEFC                                                        |
| Frame                          | 56C                                                         |
| 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             | .750 HP @ 60 HZ                                             |
| Phase                          | 3                                                           |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                                            |
| Voltage @ Frequency            | 208.0 V @ 60 HZ<br>230.0 V @ 60 HZ<br>460.0 V @ 60 HZ       |
| Agency Approvals               | CSA<br>UR                                                   |
| 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                                                        |
| Current @ Voltage              | 3.200 A @ 208.0 V<br>3.000 A @ 230.0 V<br>1.500 A @ 460.0 V |
| Design Code                    | B                                                           |
| Drip Cover                     | No Drip Cover                                               |
| Duty Rating                    | CONT                                                        |
| Efficiency @ 100% Load         | 75.5 %                                                      |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK                                                 |
| Front Shaft Indicator          | None                                                        |
| Heater Indicator               | No Heater                                                   |

## Part detail

|              |            |
|--------------|------------|
| Revision     | E          |
| Type         | AC         |
| Mech. spec.  | 34A062     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 34WGR707   |
| Layout       | 34LYA062   |
| Eff. date    | 12-30-2024 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 11-19-2020 |

|                               |                     |
|-------------------------------|---------------------|
| High Voltage Full Load Amps   | 1.5 a               |
| Insulation Class              | B                   |
| Inverter Code                 | Not Inverter        |
| KVA Code                      | M                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | Locked Bearing      |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | NEMA                |
| Motor Type                    | 3420M               |
| Mounting Arrangement          | F1                  |
| Number of Poles               | 4                   |
| Overall Length                | 11.35 IN            |
| Power Factor                  | 64                  |
| Product Family                | General Purpose     |
| Pulley End Bearing Type       | Ball                |
| Pulley Face Code              | C-Face              |
| Pulley Shaft Indicator        | Standard            |
| Rodent Screen                 | None                |
| Service Factor                | 1.25                |
| Shaft Diameter                | 0.625 IN            |
| Shaft Ground Indicator        | No Shaft Grounding  |
| Shaft Rotation                | Reversible          |
| Shaft Slinger Indicator       | No Slinger          |
| Speed                         | 1725 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

| NP1256L      |                 |      |     |      |   |       |    |   |  |
|--------------|-----------------|------|-----|------|---|-------|----|---|--|
| CAT.NO.      | CM3542          |      |     |      |   |       |    |   |  |
| SPEC.        | 34A062R707      |      |     |      |   |       |    |   |  |
| HP           | .75             |      |     |      |   |       |    |   |  |
| VOLTS        | 208-230/460     |      |     |      |   |       |    |   |  |
| AMP          | 3.2-3/1.5       |      |     |      |   |       |    |   |  |
| RPM          | 1725            |      |     |      |   |       |    |   |  |
| FRAME        | 56C             |      | HZ  | 60   |   |       | PH | 3 |  |
| SER.F.       | 1.25            | CODE | M   | DES  | B | CLASS |    | B |  |
| NEMA-NOM-EFF | 75.5            | PF   | 64  |      |   |       |    |   |  |
| RATING       | 40C AMB-CONT    |      |     |      |   |       |    |   |  |
| CC           |                 |      |     |      |   |       |    |   |  |
| DE           | 6203            |      | ODE | 6203 |   |       |    |   |  |
| ENCL         | TEFC            | SN   |     |      |   |       |    |   |  |
|              | SFA 3.6-3.4/1.7 |      |     |      |   |       |    |   |  |

## AC Induction Motor Performance Data

Record # 85439

Preliminary Data Sheet

| Winding: 34WGR707-R001 |    |              | Type: 3420M  |                                          | Enclosure: TEFC       |                |       |
|------------------------|----|--------------|--------------|------------------------------------------|-----------------------|----------------|-------|
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                |       |
| Rated Output (HP)      |    | 0.75         |              | Full Load Torque                         |                       | 2.27 LB-FT     |       |
| Volts                  |    | 208-230/460  |              | Start Configuration                      |                       | direct on line |       |
| Full Load Amps         |    | 3.2-3.0/1.5  |              | Breakdown Torque                         |                       | 9.9 LB-FT      |       |
| R.P.M.                 |    | 1725         |              | Pull-up Torque                           |                       | 7.1 LB-FT      |       |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |                       | 9.2 LB-FT      |       |
| NEMA Design Code       |    | B            | KVA Code     | M                                        | Starting Current      |                | 9.8 A |
| Service Factor (S.F.)  |    | 1.25         |              | No-load Current                          |                       | 1.08 A         |       |
| NEMA Nom. Eff.         |    | 77           | Power Factor | 61                                       | Line-line Res. @ 25°C |                | 21 Ω  |
| Rating - Duty          |    | 40C-AMB CONT |              | Temp. Rise @ Rated Load                  |                       | 69°C           |       |
| S.F. Amps              |    | 3.6-3.4/1.7  |              | Temp. Rise @ S.F. Load                   |                       | 83°C           |       |
|                        |    |              |              | Locked-rotor Power Factor                |                       | 59.2           |       |
|                        |    |              |              | Rotor inertia                            |                       | 0.0476 LB-FT2  |       |

## Load Characteristics 460 V, 60 Hz, 0.75 HP

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 29   | 44   | 56   | 66   | 73   | 79   | 73   |
| Efficiency      | 54.7 | 68.4 | 73.5 | 75.2 | 75.8 | 74.9 | 76.5 |
| Speed           | 1780 | 1763 | 1745 | 1726 | 1723 | 1700 | 1723 |
| Line amperes    | 1.09 | 1.15 | 1.26 | 1.4  | 1.58 | 1.79 | 1.58 |

ABB Motors and Mechanical Inc.

WINDING # 34WGR707

Typical performance - not guaranteed values.

0.75 HP 3 PH 60 HZ 1725 RPM 460 V 3420M

TORQUES (LB-FT) : PO=9.9 PU=7.1 LR=9.2 LRA=9.8





