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# Customer information packet

## CM3539

.5HP, 1140RPM, 3PH, 60HZ, 56C, 3418M, TEFC, F1

MDS OF MICHIGAN INC

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             | .500 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               | UR<br>CSA                                                   |
| 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              | 1.200 A @ 460.0 V<br>2.400 A @ 230.0 V<br>2.700 A @ 208.0 V |
| Design Code                    | B                                                           |
| Drip Cover                     | No Drip Cover                                               |
| Duty Rating                    | CONT                                                        |
| Efficiency @ 100% Load         | 72.0 %                                                      |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK                                                 |
| Front Face Code                | Standard                                                    |
| Front Shaft Indicator          | None                                                        |
| Heater Indicator               | No Heater                                                   |

## Part detail

|              |            |
|--------------|------------|
| Revision     | Y          |
| Type         | AC         |
| Mech. spec.  | 34A062     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 34WG5884   |
| Layout       | 34LYA062   |
| Eff. date    | 02-08-2024 |
| CD Diagram   | CD0005     |
| Poles        | 06         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 01-01-0001 |

|                               |                     |
|-------------------------------|---------------------|
| High Voltage Full Load Amps   | 1.2 a               |
| Insulation Class              | B                   |
| Inverter Code                 | Not Inverter        |
| IP Rating                     | NONE                |
| KVA Code                      | J                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | Locked Bearing      |
| Motor Lead Exit               | Ko Box              |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | NEMA                |
| Motor Type                    | 3418M               |
| Mounting Arrangement          | F1                  |
| Number of Poles               | 6                   |
| Overall Length                | 11.35 IN            |
| Power Factor                  | 55                  |
| 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                | 1.25                |
| Shaft Diameter                | 0.625 IN            |
| Shaft Extension Location      | Pulley End          |
| Shaft Ground Indicator        | No Shaft Grounding  |
| Shaft Rotation                | Reversible          |
| Shaft Slinger Indicator       | No Slinger          |
| Speed                         | 1140 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.      | CM3539       |      |     |      |   |  |       |   |  |  |  |
| SPEC.        | 34A62-5884   |      |     |      |   |  |       |   |  |  |  |
| HP           | .5           |      |     |      |   |  |       |   |  |  |  |
| VOLTS        | 230/460      |      |     |      |   |  |       |   |  |  |  |
| AMP          | 2.4/1.2      |      |     |      |   |  |       |   |  |  |  |
| RPM          | 1140         |      |     |      |   |  |       |   |  |  |  |
| FRAME        | 56C          |      | HZ  | 60   |   |  | PH    | 3 |  |  |  |
| SER.F.       | 1.25         | CODE | J   | DES  | B |  | CLASS | B |  |  |  |
| NEMA-NOM-EFF | 72           | PF   | 55  |      |   |  |       |   |  |  |  |
| RATING       | 40C AMB-CONT |      |     |      |   |  |       |   |  |  |  |
| CC           |              |      |     |      |   |  |       |   |  |  |  |
| DE           | 6203         |      | ODE | 6203 |   |  |       |   |  |  |  |
| ENCL         | TEFC         | SN   |     |      |   |  |       |   |  |  |  |
|              | SFA 2.6/1.3  |      |     |      |   |  |       |   |  |  |  |

## Parts list

| Part number   | Description                              | Quantity |
|---------------|------------------------------------------|----------|
| SA009836      | SA 34A62-5884                            | 1.000 ea |
| RA006281      | RA 34A62-5884                            | 1.000 ea |
| NS2512A01     | INSULATOR, CONDUIT BOX X                 | 1.000 ea |
| 34CB3002A     | CB CAST W/.88 DIA HOLE                   | 1.000 ea |
| 34GS1029A01   | GASKET, CONDUIT BOX                      | 1.000 ea |
| 51XB1016A07   | 10-16 X 7/16 HXWSSLD SERTYB              | 2.000 ea |
| 11XW1032G06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea |
| 34EP3102A01SP | FR ENDPLATE, MACH                        | 1.000 ea |
| HW5100A03     | WAVY WASHER (W1543-017)                  | 1.000 ea |
| 34EP3300A24SP | PU ENDPLATE, MACH                        | 1.000 ea |
| 51XN1032A20   | 10-32 X 1 1/4 HX WS SL SR                | 2.000 ea |
| 34FN3002A01SP | EXTERNAL FAN, PLASTIC, .637/.639 HUB W/  | 1.000 ea |
| 34FH4002A01SP | IEC FH NO GREASER PRIMED                 | 1.000 ea |
| 51XW1032A06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 ea |
| 34CB4517      | CB LID 4 MTG HOLES .22 DIA STAMPED, FOR  | 1.000 ea |
| 34GS1031A01   | GASKET, FLAT CONDUIT BOX LID (LEXIDE)    | 1.000 ea |
| 51XW0832A07   | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 ea |
| HW2501D13     | KEY, 3/16 SQ X 1.375                     | 1.000 ea |
| HA7000A04     | KEY RETAINER 0.625 DIA SHAFTS            | 1.000 ea |
| MN416A01      | TAG-INSTAL-MAINT no wire (2100bx)4/22    | 1.000 ea |
| LC0005E01     | CONN.DIA./WARNING LABEL (LC0005/LB1119N) | 1.000 ea |
| MG1000G27     | MED CHARCOAL METALLIC GREY               | 0.014 ga |
| 85XU0407S04   | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 ea |
| HA3100A12     | THRUBOLT 10-32 X 7.375                   | 4.000 ea |
| NP1256L       | ALUM UL CC INDUSTRIAL MOTOR A60          | 1.000 ea |
| 34PA1002      | PKG GRP, PRINT PK1001A01                 | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 23697

Typical performance - not guaranteed values

| Winding: 34WG5884-R001 |    |         | Type: 3418M                             |                     | Enclosure: TEFC         |           |        |
|------------------------|----|---------|-----------------------------------------|---------------------|-------------------------|-----------|--------|
| Nameplate Data         |    |         | 230 V, 60 Hz:<br>Low Voltage Connection |                     |                         |           |        |
| Rated Output (HP)      |    | .5      | Full Load Torque                        |                     | 2.3 LB-FT               |           |        |
| Volts                  |    | 230/460 | Start Configuration                     |                     | direct on line          |           |        |
| Full Load Amps         |    | 2.4/1.2 | Breakdown Torque                        |                     | 7.7 LB-FT               |           |        |
| R.P.M.                 |    | 1140    | Pull-up Torque                          |                     | 6 LB-FT                 |           |        |
| Hz                     | 60 | Phase   | 3                                       | Locked-rotor Torque |                         | 6.2 LB-FT |        |
| NEMA Design Code       |    | B       | KVA Code                                | J                   | Starting Current        |           | 10 A   |
| Service Factor (S.F.)  |    | 1.25    | No-load Current                         |                     | 1.9 A                   |           |        |
| NEMA Nom. Eff.         |    | 72      | Power Factor                            | 55                  | Line-line Res. @ 25°C   |           | 9.51 Ω |
| Rating - Duty          |    | 40C     | AMB-CONT                                |                     | Temp. Rise @ Rated Load |           | 63°C   |
| S.F. Amps              |    | 2.6/1.3 | Temp. Rise @ S.F. Load                  |                     | 77°C                    |           |        |
|                        |    |         | Locked-rotor Power Factor               |                     | 63                      |           |        |
|                        |    |         | Rotor inertia                           |                     | 0.0428 LB-FT2           |           |        |

**Load Characteristics 230 V, 60 Hz, 0.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 27   | 38   | 48   | 54   | 61   | 64   | 61   |
| Efficiency      | 47.9 | 63.1 | 67.3 | 72   | 72.2 | 71   | 72.2 |
| Speed           | 1185 | 1170 | 1155 | 1140 | 1120 | 1100 | 1120 |
| Line amperes    | 1.9  | 2    | 2.2  | 2.4  | 2.6  | 3    | 2.6  |

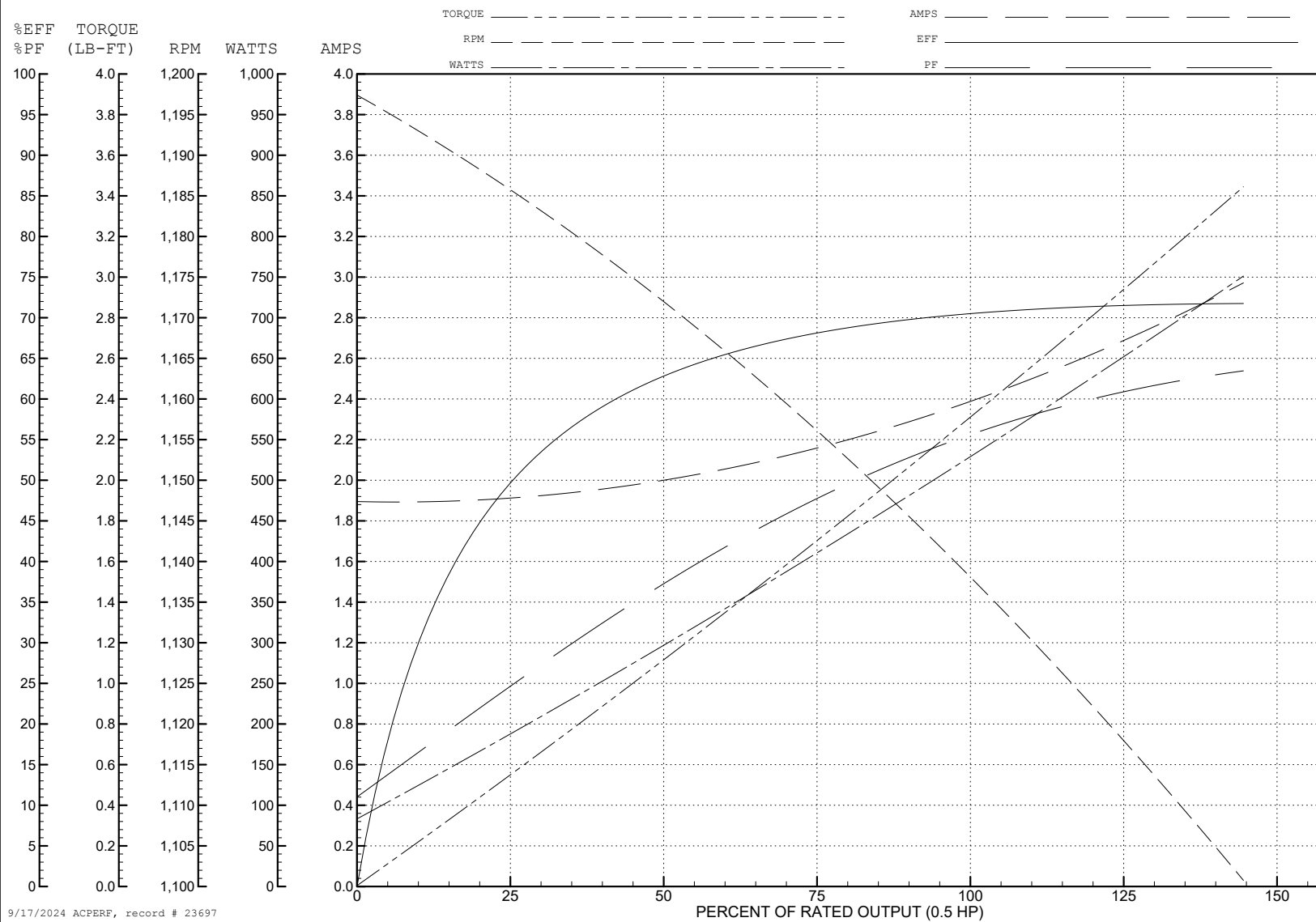
ABB Motors and Mechanical Inc.

WINDING # 34WG5884

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 1140 RPM 230 V 3418M

TORQUES (LB-FT): PO=7.7 PU=6 LR=6.2 LRA=10



**AC Induction Motor Performance Data**

Record # 6835

Typical performance - not guaranteed values

| Winding: 34WG5884-R001 |  |         | Type: 3418M  |                                          | Enclosure: TEFC     |                         |           |        |
|------------------------|--|---------|--------------|------------------------------------------|---------------------|-------------------------|-----------|--------|
| Nameplate Data         |  |         |              | 460 V, 60 Hz:<br>High Voltage Connection |                     |                         |           |        |
| Rated Output (HP)      |  | .5      |              | Full Load Torque                         |                     | 2.3 LB-FT               |           |        |
| Volts                  |  | 230/460 |              | Start Configuration                      |                     | direct on line          |           |        |
| Full Load Amps         |  | 2.4/1.2 |              | Breakdown Torque                         |                     | 7.7 LB-FT               |           |        |
| R.P.M.                 |  | 1140    |              | Pull-up Torque                           |                     | 6 LB-FT                 |           |        |
| Hz                     |  | 60      | Phase        | 3                                        | Locked-rotor Torque |                         | 6.2 LB-FT |        |
| NEMA Design Code       |  | B       | KVA Code     |                                          | J                   | Starting Current        |           | 5 A    |
| Service Factor (S.F.)  |  | 1.25    |              | No-load Current                          |                     | 0.95 A                  |           |        |
| NEMA Nom. Eff.         |  | 72      | Power Factor |                                          | 55                  | Line-line Res. @ 25°C   |           | 39.6 Ω |
| Rating - Duty          |  | 40C     |              | AMB-CONT                                 |                     | Temp. Rise @ Rated Load |           | 63°C   |
| S.F. Amps              |  | 2.6/1.3 |              | Temp. Rise @ S.F. Load                   |                     | 77°C                    |           |        |

**Load Characteristics 460 V, 60 Hz, 0.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 20   | 34   | 45   | 55   | 62   | 68   | 62   |
| Efficiency      | 48   | 63   | 67   | 72   | 72   | 71   | 72   |
| Speed           | 1185 | 1170 | 1155 | 1140 | 1120 | 1100 | 1120 |
| Line amperes    | 0.95 | 1    | 1.1  | 1.2  | 1.3  | 1.5  | 1.3  |

ABB Motors and Mechanical Inc.

WINDING # 34WG5884

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 1140 RPM 460 V 3418M

TORQUES (LB-FT) : PO=7.7 PU=6 LR=6.2 LRA=5

