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# Customer information packet

## EM31115

1HP, 3450RPM, 3PH, 60HZ, 56, 3420M, ODP, F1, N

Class - None

Division - Not Applicable

## Specifications

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Enclosure                      | ODP                                                         |
| Frame                          | 56                                                          |
| 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             | 1.000 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                                                    |
| Ambient Temperature            | 40 °C                                                       |
| Auxiliary Box                  | NO AUXILLARY BOX                                            |
| Auxiliary Box Lead Termination | None                                                        |
| Base Indicator                 | Rigid                                                       |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                     |
| Blower                         | None                                                        |
| Current @ Voltage              | 1.600 A @ 460.0 V<br>3.200 A @ 230.0 V<br>3.500 A @ 208.0 V |
| Design Code                    | B                                                           |
| Drip Cover                     | No Drip Cover                                               |
| Duty Rating                    | CONT                                                        |
| Efficiency @ 100% Load         | 77.0 %                                                      |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK                                                 |
| Front Face Code                | Standard                                                    |
| Front Shaft Indicator          | None                                                        |
| Heater Indicator               | No Heater                                                   |
| High Voltage Full Load Amps    | 1.6 a                                                       |

## Part detail

|              |            |
|--------------|------------|
| Revision     | J          |
| Type         | AC         |
| Mech. spec.  | 34B061     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 34WG3226   |
| Layout       | 34LYB061   |
| Eff. date    | 12-30-2024 |
| CD Diagram   | CD0005     |
| Poles        | 02         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 02-26-2014 |

|                               |                     |
|-------------------------------|---------------------|
| Insulation Class              | F                   |
| Inverter Code                 | Not Inverter        |
| KVA Code                      | L                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | No 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                    | 3420M               |
| Mounting Arrangement          | F1                  |
| Number of Poles               | 2                   |
| Overall Length                | 10.88 IN            |
| Power Factor                  | 82                  |
| 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                | 1.25                |
| 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                         | 3450 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

| NP3155LUA      |                            |    |      |      |     |   |       |   |       |  |  |
|----------------|----------------------------|----|------|------|-----|---|-------|---|-------|--|--|
| CAT.NO.        | EM31115                    |    |      |      |     |   |       |   |       |  |  |
| SPEC.          | 34B061-3226G1              |    |      |      |     |   |       |   |       |  |  |
| HP             | 1                          |    |      |      |     |   |       |   |       |  |  |
| VOLTS          | 230/460                    |    |      |      |     |   |       |   |       |  |  |
| AMPS           | 3.2/1.6                    |    |      |      |     |   |       |   |       |  |  |
| RPM            | 3450                       |    |      |      |     |   |       |   |       |  |  |
| FRAME          | 56                         |    | HZ   | 60   |     |   | PH    | 3 |       |  |  |
| SF             | 1.25                       |    | CODE | L    | DES | B | CLASS | F |       |  |  |
| F.L. AVG. EFF. | 77                         |    | PF   | 82   |     |   |       |   |       |  |  |
| RATING         | 40C AMB-CONT               |    |      |      |     |   |       |   |       |  |  |
| CC             |                            |    |      |      |     |   |       |   |       |  |  |
| DE             | 6203                       |    | ODE  | 6203 |     |   |       |   |       |  |  |
| ENCL           | ODP                        | SN |      |      |     |   |       |   |       |  |  |
| USABLE AT      | 50HZ 1HP 190/380V 3.4/1.7A |    |      |      |     |   |       |   | SF1.0 |  |  |

**AC Induction Motor Performance Data**

Record # 47459

Typical performance - not guaranteed values

| Winding: 34WG3226-R047 |    |              | Type: 3420M                              |                         | Enclosure: OPEN       |            |          |
|------------------------|----|--------------|------------------------------------------|-------------------------|-----------------------|------------|----------|
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                         |                       |            |          |
| Rated Output (HP)      |    | 1            | Full Load Torque                         |                         | 1.52 LB-FT            |            |          |
| Volts                  |    | 230/460      | Start Configuration                      |                         | direct on line        |            |          |
| Full Load Amps         |    | 3.2/1.6      | Breakdown Torque                         |                         | 7.7 LB-FT             |            |          |
| R.P.M.                 |    | 3450         | Pull-up Torque                           |                         | 5.67 LB-FT            |            |          |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque     |                       | 7.34 LB-FT |          |
| NEMA Design Code       |    | B            | KVA Code                                 | L                       | Starting Current      |            | 14.7 A   |
| Service Factor (S.F.)  |    | 1.25         | No-load Current                          |                         | 0.858 A               |            |          |
| NEMA Nom. Eff.         |    | 77           | Power Factor                             | 82                      | Line-line Res. @ 25°C |            | 12.852 Ω |
| Rating - Duty          |    | 40C AMB-CONT |                                          | Temp. Rise @ Rated Load |                       | 19°C       |          |
| S.F. Amps              |    | 4/2          |                                          | Temp. Rise @ S.F. Load  |                       | 23°C       |          |

**Load Characteristics 460 V, 60 Hz, 1 HP**

| % of Rated Load | 25     | 50     | 75   | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|------|--------|--------|--------|------|
| Power Factor    | 42     | 60     | 73   | 80     | 85     | 88     | 85   |
| Efficiency      | 61.1   | 74     | 78.8 | 80.8   | 81.4   | 81     | 81.4 |
| Speed           | 3567.7 | 3546.3 | 3520 | 3493.8 | 3464.5 | 3431.1 | 3464 |
| Line amperes    | 0.936  | 1.07   | 1.24 | 1.46   | 1.7    | 2      | 1.7  |

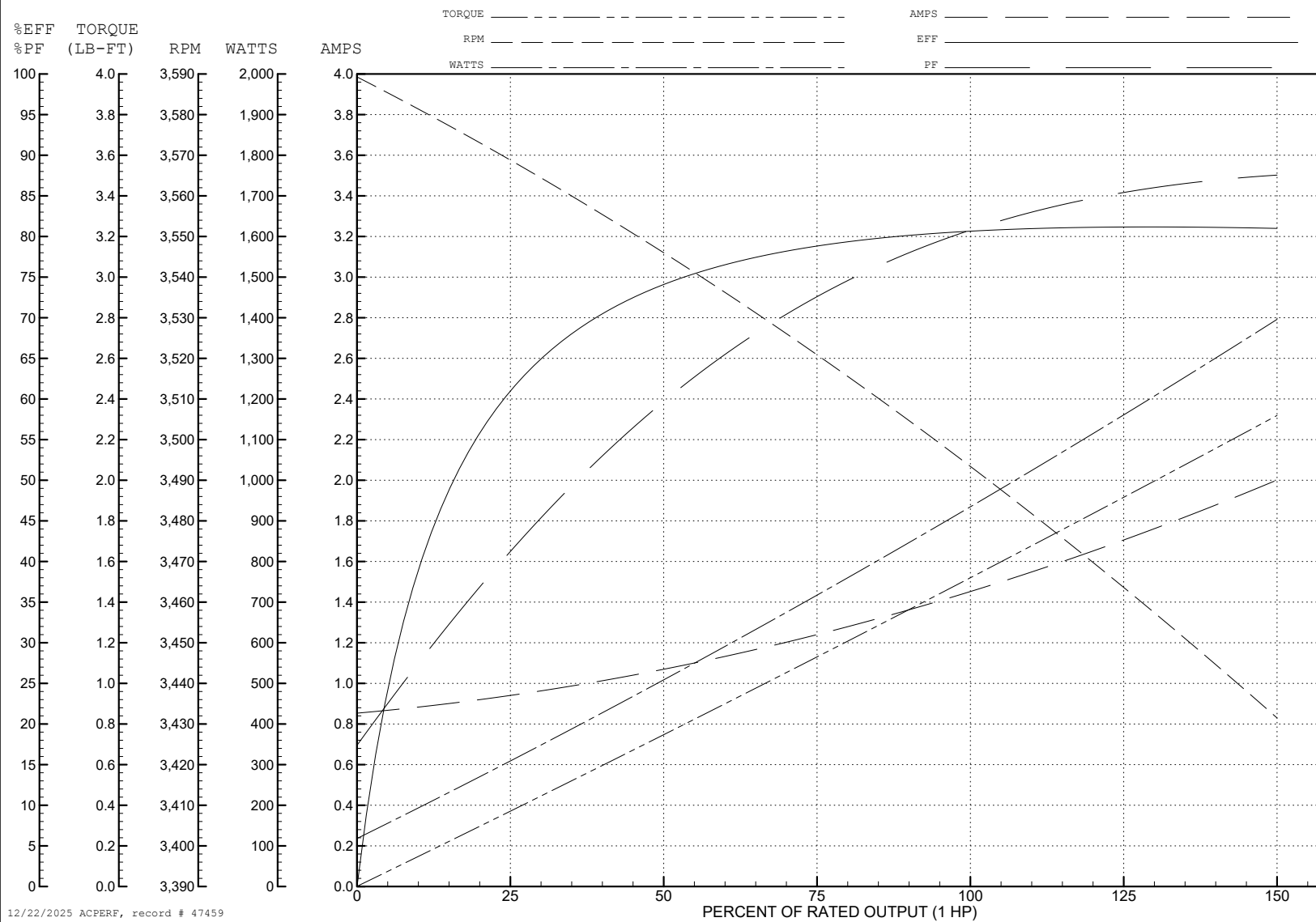
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WINDING # 34WG3226

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 3450 RPM 460 V 3420M

TORQUES (LB-FT): PO=7.7 PU=5.67 LR=7.34 LRA=14.7



**AC Induction Motor Performance Data**

Record # 49390

Typical performance - not guaranteed values

| Winding: 34WG3226-R047 |    |         | Type: 3420M                             |                     | Enclosure: OPEN         |                       |        |         |
|------------------------|----|---------|-----------------------------------------|---------------------|-------------------------|-----------------------|--------|---------|
| Nameplate Data         |    |         | 230 V, 60 Hz:<br>Low Voltage Connection |                     |                         |                       |        |         |
| Rated Output (HP)      |    | 1       | Full Load Torque                        |                     | 1.52 LB-FT              |                       |        |         |
| Volts                  |    | 230/460 | Start Configuration                     |                     | direct on line          |                       |        |         |
| Full Load Amps         |    | 3.2/1.6 | Breakdown Torque                        |                     | 7.7 LB-FT               |                       |        |         |
| R.P.M.                 |    | 3450    | Pull-up Torque                          |                     | 5.67 LB-FT              |                       |        |         |
| Hz                     | 60 | Phase   | 3                                       | Locked-rotor Torque |                         | 7.34 LB-FT            |        |         |
| NEMA Design Code       |    | B       | KVA Code                                | L                   | Starting Current        |                       | 29.4 A |         |
| Service Factor (S.F.)  |    | 1.25    | No-load Current                         |                     | 1.716 A                 |                       |        |         |
| NEMA Nom. Eff.         |    | 77      | Power Factor                            |                     | 82                      | Line-line Res. @ 25°C |        | 3.213 Ω |
| Rating - Duty          |    | 40C     | AMB-CONT                                |                     | Temp. Rise @ Rated Load |                       | 19°C   |         |
| S.F. Amps              |    | 4/2     | Temp. Rise @ S.F. Load                  |                     | 23°C                    |                       |        |         |
|                        |    |         | Locked-rotor Power Factor               |                     | 7                       |                       |        |         |
|                        |    |         | Rotor inertia                           |                     | 0.01 lb-ft²             |                       |        |         |

**Load Characteristics 230 V, 60 Hz, 1 HP**

| % of Rated Load | 25     | 50     | 75   | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|------|--------|--------|--------|------|
| Power Factor    | 42     | 60     | 73   | 80     | 85     | 88     | 85   |
| Efficiency      | 61.1   | 74     | 78.8 | 80.8   | 81.4   | 81     | 81.4 |
| Speed           | 3567.7 | 3546.3 | 3520 | 3493.8 | 3464.5 | 3431.1 | 3464 |
| Line amperes    | 1.872  | 2.14   | 2.48 | 2.92   | 3.4    | 4      | 3.4  |

ABB Motors and Mechanical Inc.

WINDING # 34WG3226

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 3450 RPM 230 V 3420M

TORQUES (LB-FT): PO=7.7 PU=5.67 LR=7.34 LRA=29.4

