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# Customer information packet

## ERM3010

.5HP, 1725RPM, 3PH, 60HZ, 48, 3424M, OPEN, F1, N

Class - None

Division - Not Applicable

## Specifications

|                                |                                                            |
|--------------------------------|------------------------------------------------------------|
| Enclosure                      | OPEN                                                       |
| Frame                          | 48                                                         |
| 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  | 1800 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                                                      |
| Auxiliary Box                  | NO AUXILLARY BOX                                           |
| Auxiliary Box Lead Termination | None                                                       |
| Base Indicator                 | Resilient                                                  |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                    |
| Blower                         | None                                                       |
| Current @ Voltage              | .800 A @ 460.0 V<br>1.600 A @ 230.0 V<br>2.100 A @ 208.0 V |
| Design Code                    | B                                                          |
| Drip Cover                     | No Drip Cover                                              |
| Duty Rating                    | CONT                                                       |
| Efficiency @ 100% Load         | 78.2 %                                                     |
| Electrically Isolated Bearing  | Not Electrically Isolated                                  |
| Feedback Device                | NO FEEDBACK                                                |
| Front Face Code                | Resilient Mount                                            |
| Front Shaft Indicator          | None                                                       |
| Heater Indicator               | No Heater                                                  |

## Part detail

|              |            |
|--------------|------------|
| Revision     | J          |
| Type         | AC         |
| Mech. spec.  | 34K015     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 34WGX110   |
| Layout       | 34LYK015   |
| Eff. date    | 10-29-2024 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 10-06-2014 |

|                               |                             |
|-------------------------------|-----------------------------|
| High Voltage Full Load Amps   | 0.8 a                       |
| Insulation Class              | B                           |
| Inverter Code                 | Not Inverter                |
| KVA Code                      | J                           |
| Lifting Lugs                  | No Lifting Lugs             |
| Locked Bearing Indicator      | No Locked Bearing           |
| Motor Lead Exit               | Terminal Panel Or Lead Hole |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG                  |
| Motor Lead Termination        | Flying Leads                |
| Motor Standards               | NEMA                        |
| Motor Type                    | 3424M                       |
| Mounting Arrangement          | F1                          |
| Number of Poles               | 4                           |
| Overall Length                | 11.84 IN                    |
| Power Factor                  | 78                          |
| Product Family                | General Purpose             |
| Pulley End Bearing Type       | Ball                        |
| Pulley Face Code              | Resilient Mount             |
| Pulley Shaft Indicator        | Standard                    |
| Rodent Screen                 | None                        |
| RoHS Status                   | ROHS COMPLIANT              |
| Service Factor                | 1.25                        |
| Shaft Diameter                | 0.500 IN                    |
| Shaft Extension Location      | Pulley End                  |
| 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

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## Nameplate

| NP3155L        |              |      |     |      |   |    |   |  |  |
|----------------|--------------|------|-----|------|---|----|---|--|--|
| CAT.NO.        | ERM3010      |      |     |      |   |    |   |  |  |
| SPEC.          | 34K015X110G1 |      |     |      |   |    |   |  |  |
| HP             | .5           |      |     |      |   |    |   |  |  |
| VOLTS          | 230/460      |      |     |      |   |    |   |  |  |
| AMP            | 1.6/.8       |      |     |      |   |    |   |  |  |
| RPM            | 1725         |      |     |      |   |    |   |  |  |
| FRAME          | 48           |      | HZ  | 60   |   | PH | 3 |  |  |
| SER.F.         | 1.25         | CODE | J   | DES  | B | CL | B |  |  |
| F.L. AVG. EFF. | 78.2         | PF   | 78  |      |   |    |   |  |  |
| RATING         | 40C AMB-CONT |      |     |      |   |    |   |  |  |
| CC             |              |      |     |      |   |    |   |  |  |
| DE             | 6203         |      | ODE | 6203 |   |    |   |  |  |
| ENCL           | OPEN         | SN   |     |      |   |    |   |  |  |
|                | SFA 2/1      |      |     |      |   |    |   |  |  |

## AC Induction Motor Performance Data

Record # 47467

Typical performance - not guaranteed values

| Winding: 34WGX110-R011 |  |              |  | Type: 3424M                              |  | Enclosure: OPEN     |  |                       |  |          |  |
|------------------------|--|--------------|--|------------------------------------------|--|---------------------|--|-----------------------|--|----------|--|
| Nameplate Data         |  |              |  | 460 V, 60 Hz:<br>High Voltage Connection |  |                     |  |                       |  |          |  |
| Rated Output (HP)      |  | .5           |  | Full Load Torque                         |  | 1.57 LB-FT          |  |                       |  |          |  |
| Volts                  |  | 230/460      |  | Start Configuration                      |  | direct on line      |  |                       |  |          |  |
| Full Load Amps         |  | 1.6/.8       |  | Breakdown Torque                         |  | 5.24 LB-FT          |  |                       |  |          |  |
| R.P.M.                 |  | 1725         |  | Pull-up Torque                           |  | 3.8 LB-FT           |  |                       |  |          |  |
| Hz                     |  | 60 Phase     |  | 3                                        |  | Locked-rotor Torque |  | 5.12 LB-FT            |  |          |  |
| NEMA Design Code       |  | B            |  | KVA Code                                 |  | J                   |  | Starting Current      |  | 6.16 A   |  |
| Service Factor (S.F.)  |  | 1.25         |  | No-load Current                          |  | 0.474 A             |  |                       |  |          |  |
| NEMA Nom. Eff.         |  | 78.2         |  | Power Factor                             |  | 78                  |  | Line-line Res. @ 25°C |  | 30.994 Ω |  |
| Rating - Duty          |  | 40C AMB-CONT |  | Temp. Rise @ Rated Load                  |  | 25°C                |  |                       |  |          |  |
| S.F. Amps              |  | 2/1          |  | Temp. Rise @ S.F. Load                   |  | 34°C                |  |                       |  |          |  |
|                        |  |              |  | Locked-rotor Power Factor                |  | 53                  |  |                       |  |          |  |
|                        |  |              |  | Rotor inertia                            |  | 0.0572 LB-FT2       |  |                       |  |          |  |

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

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F.  |
|-----------------|--------|--------|--------|--------|--------|--------|-------|
| Power Factor    | 38     | 55     | 68     | 76     | 80     | 83     | 80    |
| Efficiency      | 67.3   | 76.6   | 78.9   | 78.7   | 77.2   | 74.9   | 77.2  |
| Speed           | 1782.6 | 1766.4 | 1749.5 | 1729.5 | 1707.4 | 1683.2 | 1707  |
| Line amperes    | 0.509  | 0.586  | 0.687  | 0.815  | 0.971  | 1.14   | 0.971 |

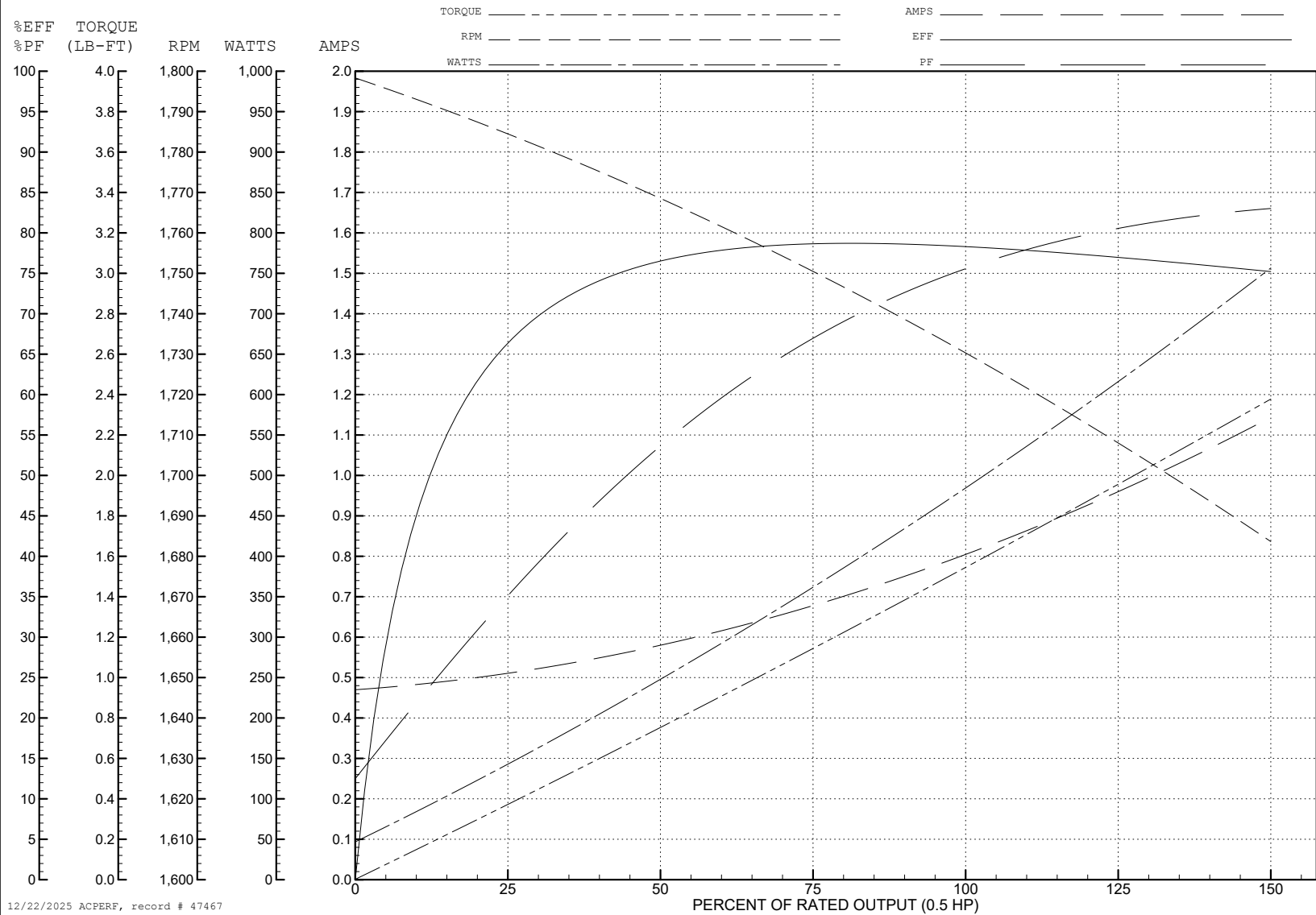
ABB Motors and Mechanical Inc.

WINDING # 34WGX110

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 1725 RPM 460 V 3424M

TORQUES (LB-FT): PO=5.24 PU=3.8 LR=5.12 LRA=6.16



## AC Induction Motor Performance Data

Record # 49381

Typical performance - not guaranteed values

| Winding: 34WGX110-R011 |  |         |  | Type: 3424M                             |  | Enclosure: OPEN         |  |
|------------------------|--|---------|--|-----------------------------------------|--|-------------------------|--|
| Nameplate Data         |  |         |  | 230 V, 60 Hz:<br>Low Voltage Connection |  |                         |  |
| Rated Output (HP)      |  | .5      |  | Full Load Torque                        |  | 1.57 LB-FT              |  |
| Volts                  |  | 230/460 |  | Start Configuration                     |  | direct on line          |  |
| Full Load Amps         |  | 1.6/.8  |  | Breakdown Torque                        |  | 5.24 LB-FT              |  |
| R.P.M.                 |  | 1725    |  | Pull-up Torque                          |  | 3.8 LB-FT               |  |
| Hz                     |  | 60      |  | Phase                                   |  | 3                       |  |
| NEMA Design Code       |  | B       |  | KVA Code                                |  | J                       |  |
| Service Factor (S.F.)  |  | 1.25    |  | No-load Current                         |  | 0.948 A                 |  |
| NEMA Nom. Eff.         |  | 78.2    |  | Power Factor                            |  | 78                      |  |
| Rating - Duty          |  | 40C     |  | AMB-CONT                                |  | Temp. Rise @ Rated Load |  |
| S.F. Amps              |  | 2/1     |  | Temp. Rise @ S.F. Load                  |  | 31°C                    |  |
|                        |  |         |  | Locked-rotor Power Factor               |  | 52.9                    |  |
|                        |  |         |  | Rotor inertia                           |  | 0.0572 LB-FT2           |  |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 37   | 56   | 68   | 76   | 80   | 83   | 80   |
| Efficiency      | 67.5 | 76.4 | 78.6 | 78.6 | 77.1 | 75.1 | 77.1 |
| Speed           | 1783 | 1766 | 1750 | 1730 | 1707 | 1683 | 1707 |
| Line amperes    | 1.02 | 1.17 | 1.37 | 1.63 | 1.94 | 2.28 | 1.94 |

ABB Motors and Mechanical Inc.

WINDING # 34WGX110

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 1725 RPM 230 V 3424M

TORQUES (LB-FT): PO=5.24 PU=3.8 LR=5.12 LRA=12.3

