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# Customer information packet

## L3504M

.5HP, 1725RPM, 1PH, 60HZ, 56, 3421L, TEFC, F1

Class - None

Division - Not Applicable

## Specifications

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Enclosure                      | TEFC                                                        |
| Frame                          | 56                                                          |
| Frame Material                 | Steel                                                       |
| Frequency                      | 60.00 Hz                                                    |
| Haz Area Class and Group       | None                                                        |
| Haz Area Division              | Not Applicable                                              |
| Motor Letter Type              | Cap Start, Induction Run                                    |
| Output @ Frequency             | .500 HP @ 60 HZ                                             |
| Phase                          | 1                                                           |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                                            |
| Voltage @ Frequency            | 115.0 V @ 60 HZ<br>230.0 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              | 3.700 A @ 230.0 V<br>4.300 A @ 208.0 V<br>7.400 A @ 115.0 V |
| Design Code                    | N                                                           |
| Drip Cover                     | No Drip Cover                                               |
| Duty Rating                    | CONT                                                        |
| Efficiency @ 100% Load         | 68.0 %                                                      |
| 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     | AG             |
| Type         | AC             |
| Mech. spec.  | 34K050         |
| Base         |                |
| Status       | PRD/A          |
| Elec. spec.  | 34WG5594       |
| Layout       | 34LYK050       |
| Eff. date    | 01-13-2025     |
| CD Diagram   | CD0008         |
| Poles        | 04             |
| Leads        | 6#18,1#16 #4TH |
| Proprietary  | False          |
| Created date | 01-01-0001     |

|                               |                         |
|-------------------------------|-------------------------|
| High Voltage Full Load Amps   | 3.7 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               | Ko Box                  |
| Motor Lead Quantity/Wire Size | 6 @ 18 AWG              |
| Motor Lead Termination        | Flying Leads            |
| Motor Standards               | NEMA                    |
| Motor Type                    | 3421L                   |
| Mounting Arrangement          | F1                      |
| Number of Poles               | 4                       |
| Overall Length                | 11.97 IN                |
| Power Factor                  | 66                      |
| Product Family                | General Purpose         |
| Pulley End Bearing Type       | Ball                    |
| Pulley Face Code              | Standard                |
| Pulley Shaft Indicator        | Standard                |
| Rodent Screen                 | None                    |
| 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                         | 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             | Manual Thermal Overload |
| Winding Thermal 1 Location    | SB                      |

Winding Thermal 2

None

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## Nameplate

| NP1257L      |              |      |      |     |   |    |   |  |  |
|--------------|--------------|------|------|-----|---|----|---|--|--|
| CAT.NO.      | L3504M       |      |      |     |   |    |   |  |  |
| SPEC.        | 34K50-5594   |      |      |     |   |    |   |  |  |
| HP           | .5           |      |      |     |   |    |   |  |  |
| VOLTS        | 115/230      |      |      |     |   |    |   |  |  |
| AMP          | 7.4/3.7      |      |      |     |   |    |   |  |  |
| RPM          | 1725         |      |      |     |   |    |   |  |  |
| FRAME        | 56           |      | HZ   | 60  |   | PH | 1 |  |  |
| SER.F.       | 1.25         | CODE | J    | DES | N | CL | B |  |  |
| NEMA-NOM-EFF | 68           | PF   | 66   |     |   |    |   |  |  |
| RATING       | 40C AMB-CONT |      |      |     |   |    |   |  |  |
| CC           |              |      |      |     |   |    |   |  |  |
| DE           | 6203         | ODE  | 6203 |     |   |    |   |  |  |
| ENCL         | TEFC         | SN   |      |     |   |    |   |  |  |
|              | SFA 8.2/4.1  |      |      |     |   |    |   |  |  |

**Accessories**

| Part number | Description | Multiplier |
|-------------|-------------|------------|
| 34-171      | C FACE KIT  | A8         |

## AC Induction Motor Performance Data

Record # 6781

Typical performance - not guaranteed values

| Winding: 34WG5594-R001 |    |              | Type: 3421L  |                                          | Enclosure: TEFC |                            |
|------------------------|----|--------------|--------------|------------------------------------------|-----------------|----------------------------|
| Nameplate Data         |    |              |              | 230 V, 60 Hz:<br>High Voltage Connection |                 |                            |
| Rated Output (HP)      |    | .5           |              | Full Load Torque                         |                 | 1.5 LB-FT                  |
| Volts                  |    | 115/230      |              | Start Configuration                      |                 | direct on line             |
| Full Load Amps         |    | 7.4/3.7      |              | Breakdown Torque                         |                 | 4.13 LB-FT                 |
| R.P.M.                 |    | 1725         |              | Pull-up Torque                           |                 | 3.6 LB-FT                  |
| Hz                     | 60 | Phase        | 1            | Locked-rotor Torque                      |                 | 4.65 LB-FT                 |
| NEMA Design Code       |    | N            | KVA Code     | Starting Current                         |                 | 16.5 A                     |
| Service Factor (S.F.)  |    | 1.25         |              | No-load Current                          |                 | 2.8 A                      |
| NEMA Nom. Eff.         |    | 68           | Power Factor | Line-line Res. @ 25°C                    |                 | 4.44 Ω A Ph<br>3.19 Ω B Ph |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |                 | 63°C                       |
| S.F. Amps              |    | 8.2/4.1      |              | Temp. Rise @ S.F. Load                   |                 | 77°C                       |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 32   | 46   | 59   | 66   | 72   | 80   | 72   |
| Efficiency      | 42   | 58   | 65   | 68   | 69   | 68   | 69   |
| Speed           | 1783 | 1765 | 1750 | 1730 | 1710 | 1680 | 1710 |
| Line amperes    | 2.8  | 3    | 3.3  | 3.7  | 4.1  | 4.8  | 4.1  |

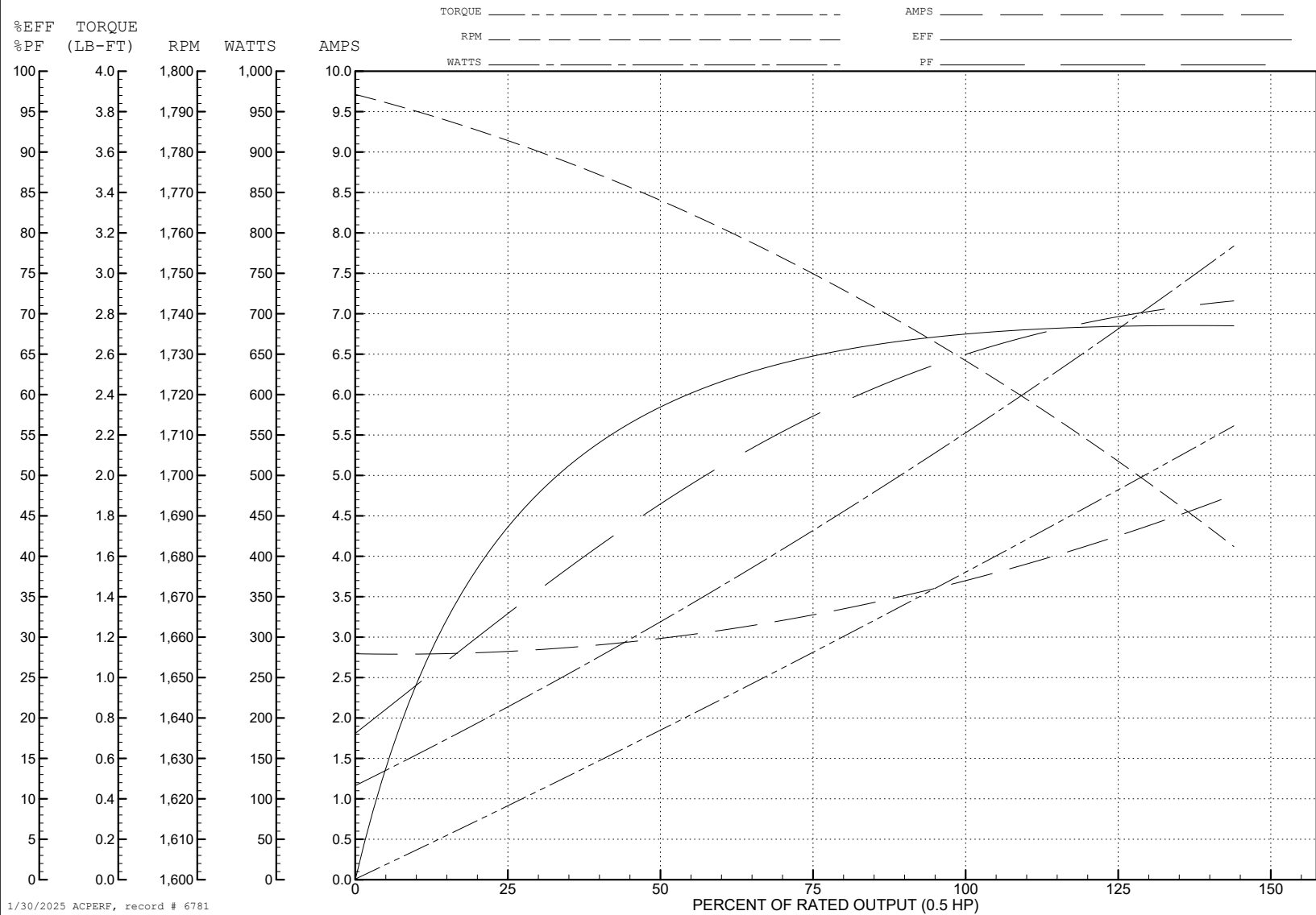
ABB Motors and Mechanical Inc.

WINDING # 34WG5594

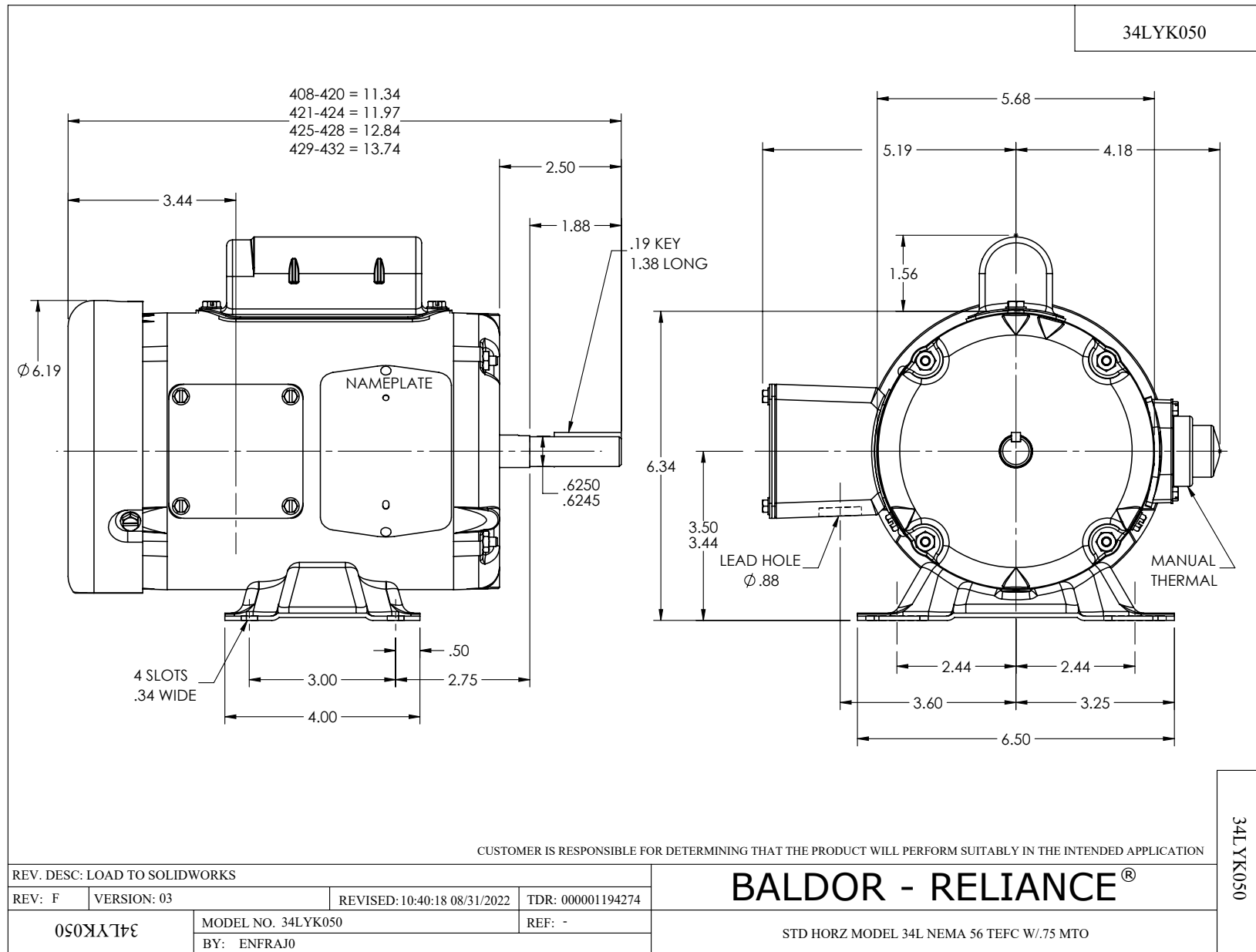
Typical performance - not guaranteed values.

0.5 HP 1 PH 60 HZ 1725 RPM 230 V 3421L

TORQUES (LB-FT): PO=4.13 PU=3.6 LR=4.65 LRA=16.5







CD0008

