



---

# Customer information packet

## EJM3545

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

Class - None

Division - Not Applicable

## Specifications

|                                |   |
|--------------------------------|---|
| Enclosure                      | TEFC  |
| Frame                          | 56J   |
| 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            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                          |
| Agency Approvals               | CSA<br>CSA EEV<br>UR  |
| Ambient Temperature            | 40 °C   |
| Auxillary Box                  | No Auxillary Box  |
| Auxillary Box Lead Termination | None  |
| Base Indicator                 | No Mounting   |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                     |
| Blower                         | None  |
| Current @ Voltage              | 3.200 A @ 230.0 V<br>4.200 A @ 208.0 V<br>1.600 A @ 460.0 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  |

## Part detail

|              |            |
|--------------|------------|
| Revision     | K          |
| Type         | AC         |
| Mech. spec.  | 34K508     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 34WG3226   |
| Layout       | 34LYK508   |
| Eff. date    | 06-28-2023 |
| CD Diagram   | CD0005     |
| Poles        | 02         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 11-12-2015 |

|                               |                     |
|-------------------------------|---------------------|
| Heater Indicator              | No Heater           |
| High Voltage Full Load Amps   | 1.6 a               |
| Insulation Class              | B                   |
| Inverter Code                 | Not Inverter        |
| KVA Code                      | L                   |
| 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                    | 3420M               |
| Mounting Arrangement          | F1                  |
| Number of Poles               | 2                   |
| Overall Length                | 12.47 IN            |
| Power Factor                  | 82                  |
| Product Family                | General Purpose     |
| Pulley End Bearing Type       | Ball                |
| Pulley Face Code              | C-Face              |
| Pulley Shaft Indicator        | Ext Thread          |
| Rodent Screen                 | None                |
| RoHS Status                   | ROHS COMPLIANT      |
| Service Factor                | 1.40                |
| 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**

| <b>NP1259L</b>      |               |             |           |            |   |           |   |  |  |
|---------------------|---------------|-------------|-----------|------------|---|-----------|---|--|--|
| <b>CAT.NO.</b>      | EJM3545       |             |           |            |   |           |   |  |  |
| <b>SPEC.</b>        | 34K508-3226G2 |             |           |            |   |           |   |  |  |
| <b>HP</b>           | 1             |             |           |            |   |           |   |  |  |
| <b>VOLTS</b>        | 208-230/460   |             |           |            |   |           |   |  |  |
| <b>AMP</b>          | 3.4-3.2/1.6   |             |           |            |   |           |   |  |  |
| <b>RPM</b>          | 3450          |             |           |            |   |           |   |  |  |
| <b>FRAME</b>        | 56J           |             | <b>HZ</b> | 60         |   | <b>PH</b> | 3 |  |  |
| <b>SER.F.</b>       | 1.40          | <b>CODE</b> | L         | <b>DES</b> | B | <b>CL</b> | B |  |  |
| <b>NEMA-NOM-EFF</b> | 77            | <b>PF</b>   | 82        |            |   |           |   |  |  |
| <b>RATING</b>       | 40C AMB-CONT  |             |           |            |   |           |   |  |  |
| <b>CC</b>           | 010A          |             |           |            |   |           |   |  |  |
| <b>DE</b>           | 6203          | <b>ODE</b>  | 6203      |            |   |           |   |  |  |
| <b>ENCL</b>         | TEFC          | <b>SN</b>   |           |            |   |           |   |  |  |
|                     | SFA 4.2-4/2   |             |           |            |   |           |   |  |  |

**AC Induction Motor Performance Data**

Record # 70920

Typical performance - not guaranteed values

| Winding: 34WG3226-R046 |                 | Type: 3420M  |  | Enclosure: TEFC |                           |
|------------------------|-----------------|--------------|--|-----------------|---------------------------|
| <b>Nameplate Data</b>  |                 |              | <b>460 V, 60 Hz:<br/>High Voltage Connection</b> |                 |                           |
| Rated Output (HP)      |                 | 1            | Full Load Torque                                 |                 | 1.51 LB-FT                |
| Volts                  |                 | 208-230/460  | Start Configuration                              |                 | direct on line            |
| Full Load Amps         |                 | 3.4-3.2/1.6  | Breakdown Torque                                 |                 | 7.97 LB-FT                |
| R.P.M.                 |                 | 3450         | Pull-up Torque                                   |                 | 6.2 LB-FT                 |
| Hz                     | 60 Phase        | 3            | Locked-rotor Torque                              |                 | 8.7 LB-FT                 |
| NEMA Design Code       | B KVA Code      | L            | Starting Current                                 |                 | 14.5 A                    |
| Service Factor (S.F.)  |                 | 1.4          | No-load Current                                  |                 | 0.913 A                   |
| NEMA Nom. Eff.         | 77 Power Factor | 82           | Line-line Res. @ 25°C                            |                 | 12.8 Ω                    |
| Rating - Duty          |                 | 40C AMB-CONT | Temp. Rise @ Rated Load                          |                 | 55°C                      |
| S.F. Amps              |                 | 4.2-4/2      | Temp. Rise @ S.F. Load                           |                 | 74°C                      |
|                        |                 |              | Locked-rotor Power Factor                        |                 | 63.6                      |
|                        |                 |              | Rotor inertia                                    |                 | 0.0186 LB-FT <sup>2</sup> |

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

| % of Rated Load | 25    | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|-------|------|------|------|------|------|------|
| Power Factor    | 41    | 59   | 72   | 81   | 85   | 89   | 87   |
| Efficiency      | 57.3  | 70.7 | 76.9 | 78.8 | 79.5 | 79.5 | 79.5 |
| Speed           | 3560  | 3536 | 3506 | 3475 | 3445 | 3406 | 3422 |
| Line amperes    | 0.967 | 1.09 | 1.27 | 1.47 | 1.7  | 1.99 | 1.87 |

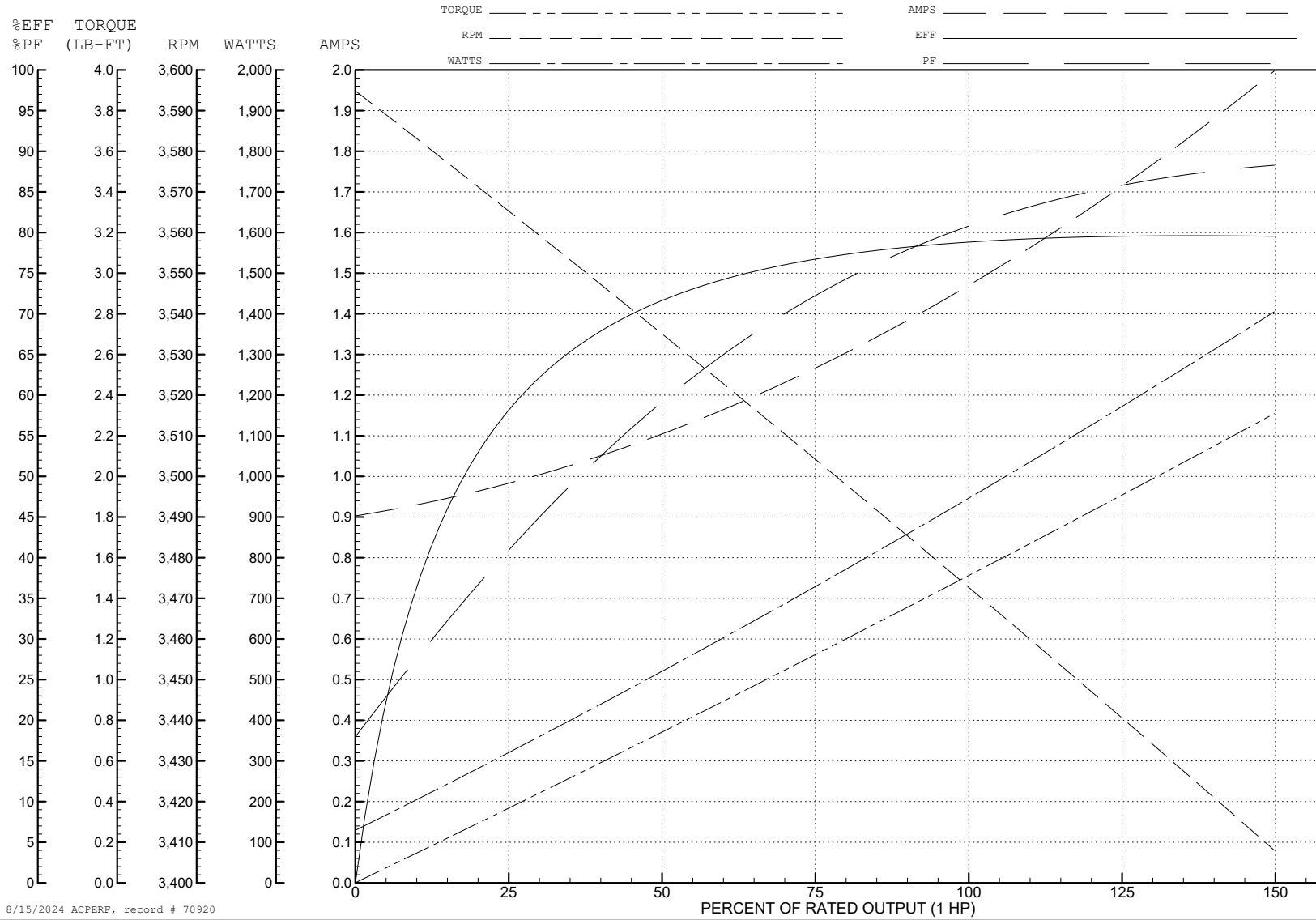
ABB Motors and Mechanical Inc.

WINDING # 34WG3226

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

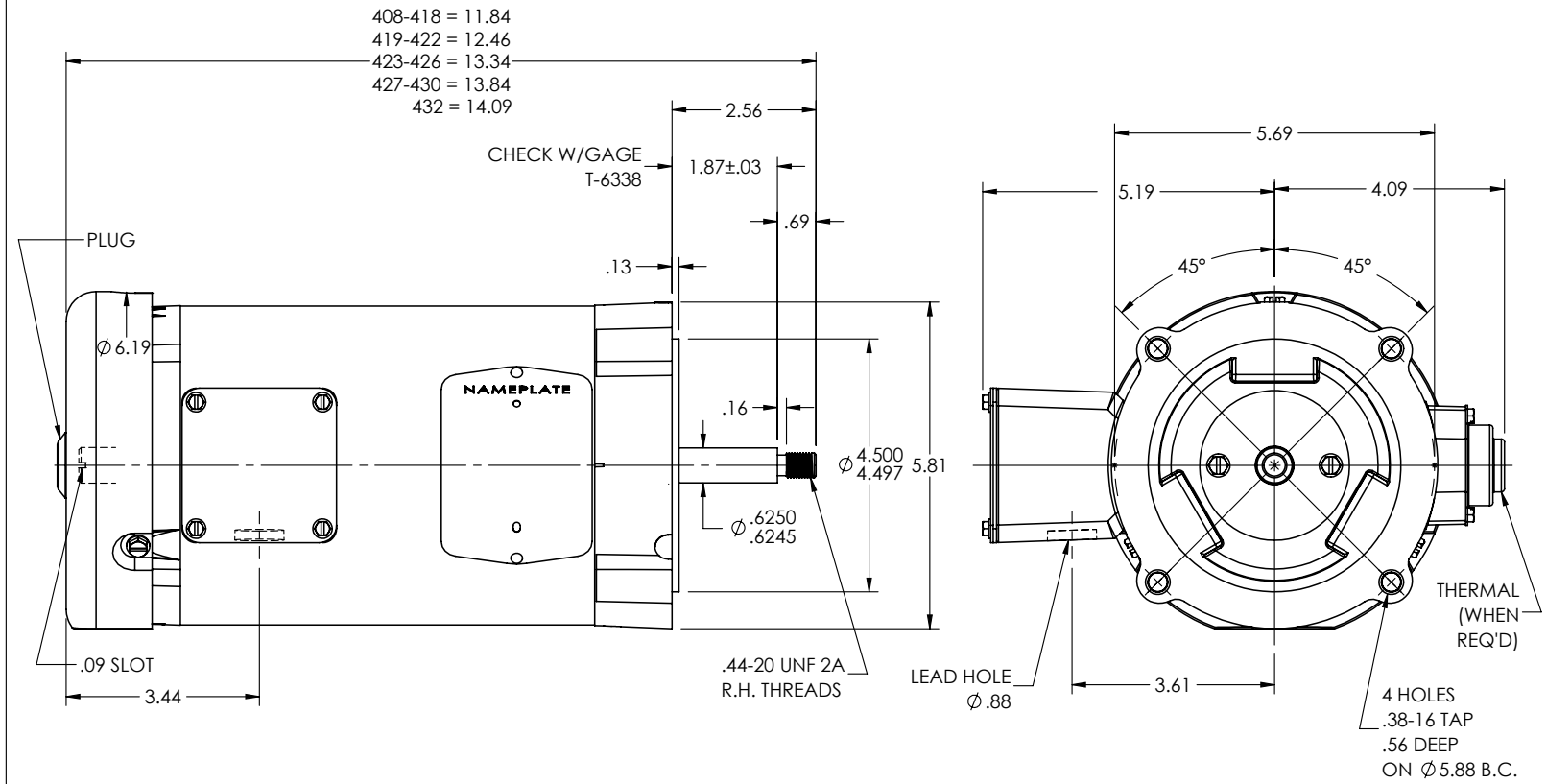
Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=7.97 PU=6.2 LR=8.7 LRA=14.5



8/15/2024 ACPERF, record # 70920

34LYK508



CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

|                                       |                    |                              |                   |
|---------------------------------------|--------------------|------------------------------|-------------------|
| REV. DESC: LOAD TO SOLIDWORKS - REV B |                    |                              |                   |
| REV: C                                | VERSION: 03        | REVISED: 09:07:52 12/20/2022 | TDR: 000001201165 |
| 34LYK508                              | MODEL NO. 34LYK508 | REF: -                       |                   |
|                                       | BY: ENFRAJ0        |                              |                   |

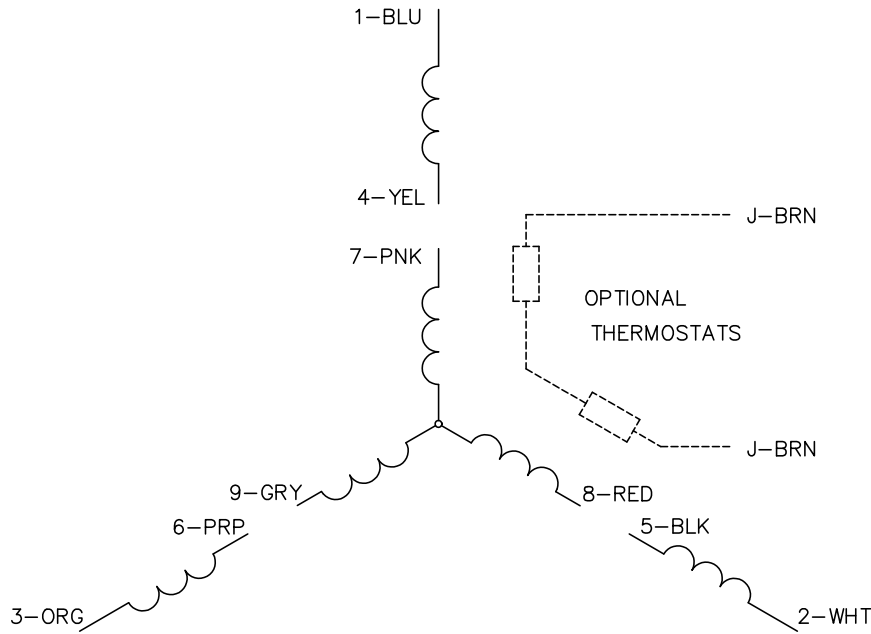
**BALDOR - RELIANCE®**

VER 34M NEMA 56J TEFC F/LOW RES ER

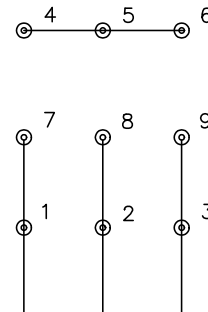
34LYK508



CD0005

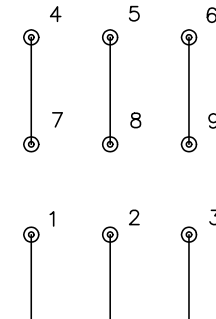


LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0005

|   |         |                         |              |
|---|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                         |              |
| REV. LTR: E                               | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| S00000                                    |         | FILE: AAA00005140       | MDL: -       |
|   |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS