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# Customer information packet

## EM30009

.5HP, 3450RPM, 3PH, 60HZ, 48, 3416M, ODP, F1, N

Class - None

Division - Not Applicable

## Specifications

|                                |  |
|--------------------------------|--|
| Enclosure                      | ODP  |
| 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  | 3600 RPM @ 60 HZ   |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                         |
| Agency Approvals               | CURUSEEV   |
| 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              | .800 A @ 460.0 V<br>1.600 A @ 230.0 V<br>1.900 A @ 208.0 V |
| Design Code                    | B  |
| Drip Cover                     | No Drip Cover  |
| Duty Rating                    | CONT   |
| Efficiency @ 100% Load         | 73.4 %   |
| 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    | 0.8 a  |

## Part detail

|              |            |
|--------------|------------|
| Revision     | H          |
| Type         | AC         |
| Mech. spec.  | 34B051     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 34WGS937   |
| Layout       | 34LYB051   |
| 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                      | P                   |
| 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                    | 3416M               |
| Mounting Arrangement          | F1                  |
| Number of Poles               | 2                   |
| Overall Length                | 9.62 IN             |
| Power Factor                  | 78                  |
| 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                | 0.500 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>NP3155L</b>        |              |             |            |            |   |           |   |  |  |
|-----------------------|--------------|-------------|------------|------------|---|-----------|---|--|--|
| <b>CAT.NO.</b>        | EM30009      |             |            |            |   |           |   |  |  |
| <b>SPEC.</b>          | 34B051S937G1 |             |            |            |   |           |   |  |  |
| <b>HP</b>             | .5           |             |            |            |   |           |   |  |  |
| <b>VOLTS</b>          | 230/460      |             |            |            |   |           |   |  |  |
| <b>AMP</b>            | 1.6/.8       |             |            |            |   |           |   |  |  |
| <b>RPM</b>            | 3450         |             |            |            |   |           |   |  |  |
| <b>FRAME</b>          | 48           |             | <b>HZ</b>  | 60         |   | <b>PH</b> | 3 |  |  |
| <b>SER.F.</b>         | 1.25         | <b>CODE</b> | P          | <b>DES</b> | B | <b>CL</b> | F |  |  |
| <b>F.L. AVG. EFF.</b> | 73.4         | <b>PF</b>   | 78         |            |   |           |   |  |  |
| <b>RATING</b>         | 40C AMB-CONT |             |            |            |   |           |   |  |  |
| <b>CC</b>             |              |             |            |            |   |           |   |  |  |
| <b>DE</b>             | 6203         |             | <b>ODE</b> | 6203       |   |           |   |  |  |
| <b>ENCL</b>           | ODP          | <b>SN</b>   |            |            |   |           |   |  |  |
|                       | SFA 1.8/.9   |             |            |            |   |           |   |  |  |

**AC Induction Motor Performance Data**

Record # 44903

Typical performance - not guaranteed values

| Winding: 34WGS937-R001 |          | Type: 3416M            | Enclosure: OPEN                                  |                           |         |
|------------------------|----------|------------------------|--|---------------------------|---------|
| <b>Nameplate Data</b>  |          |                        | <b>460 V, 60 Hz:<br/>High Voltage Connection</b> |                           |         |
| Rated Output (HP)      | .5       | Full Load Torque       | 0.767 LB-FT                                      |                           |         |
| Volts                  | 230/460  | Start Configuration    | direct on line                                   |                           |         |
| Full Load Amps         | 1.6/.8   | Breakdown Torque       | 4.81 LB-FT                                       |                           |         |
| R.P.M.                 | 3450     | Pull-up Torque         | 3.29 LB-FT                                       |                           |         |
| Hz                     | 60 Phase | 3                      | Locked-rotor Torque                              | 4.44 LB-FT                |         |
| NEMA Design Code       | B        | KVA Code               | N  | Starting Current          | 7.88 A  |
| Service Factor (S.F.)  | 1.25     | No-load Current        | 0.48 A   |                           |         |
| NEMA Nom. Eff.         | 73.4     | Power Factor           | 75   | Line-line Res. @ 25°C     | 22.08 Ω |
| Rating - Duty          | 40C      | AMB-CONT               | Temp. Rise @ Rated Load                          |                           | 15°C    |
| S.F. Amps              | 1.8/.9   | Temp. Rise @ S.F. Load |  | 17°C                      |         |
|                        |          |                        | Locked-rotor Power Factor                        | 66                        |         |
|                        |          |                        | Rotor inertia                                    | 0.0148 LB-FT <sup>2</sup> |         |

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

| % of Rated Load | 25    | 50     | 75     | 100    | 125    | 150    | S.F.  |
|-----------------|-------|--------|--------|--------|--------|--------|-------|
| Power Factor    | 45    | 61     | 72     | 78     | 83     | 86     | 83    |
| Efficiency      | 54    | 67.8   | 73.9   | 76.9   | 78.3   | 78.8   | 78.3  |
| Speed           | 3560  | 3537.1 | 3511.5 | 3484.8 | 3456.5 | 3427.6 | 3456  |
| Line amperes    | 0.524 | 0.591  | 0.676  | 0.79   | 0.911  | 1.05   | 0.911 |

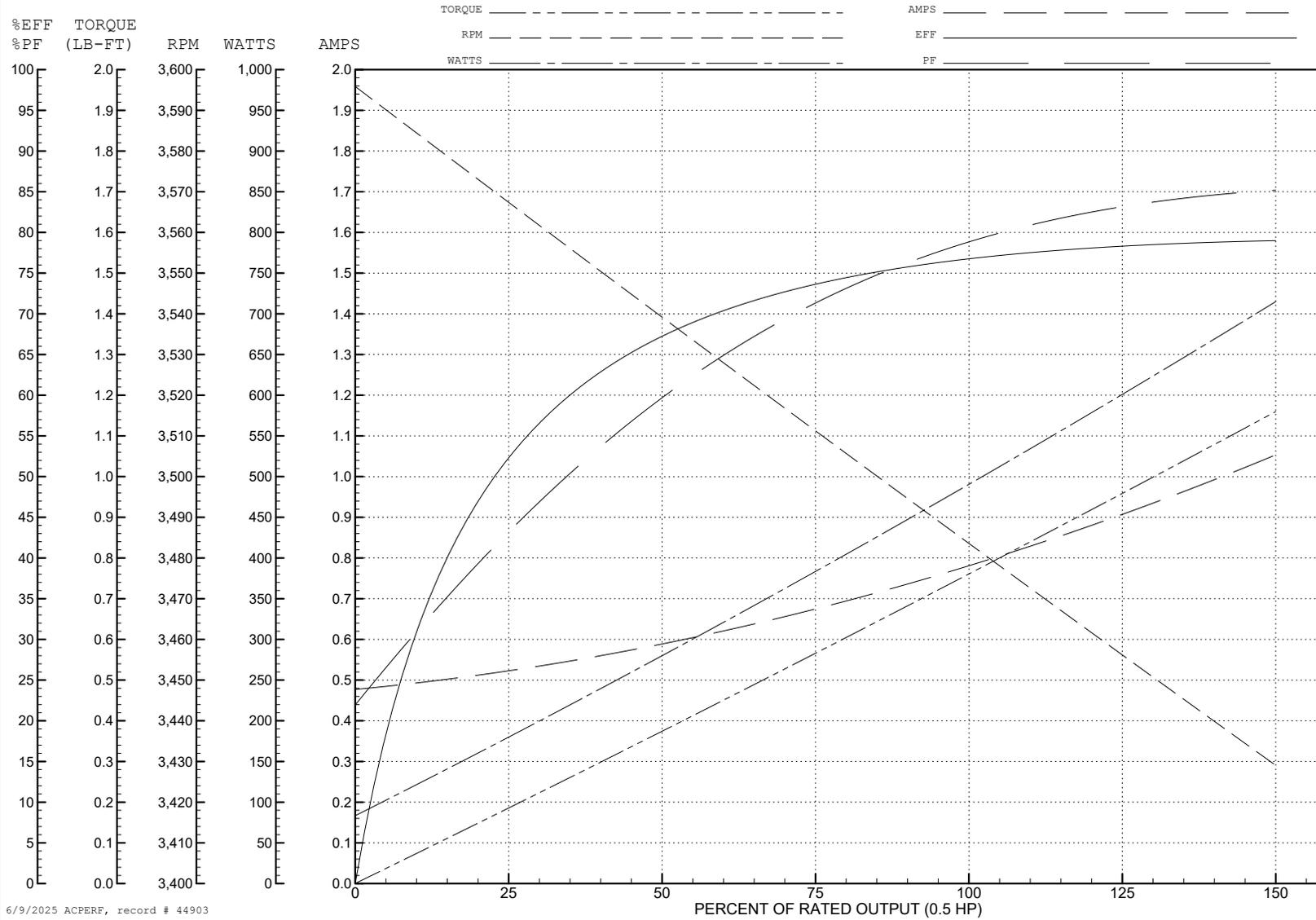
ABB Motors and Mechanical Inc.

WINDING # 34WGS937

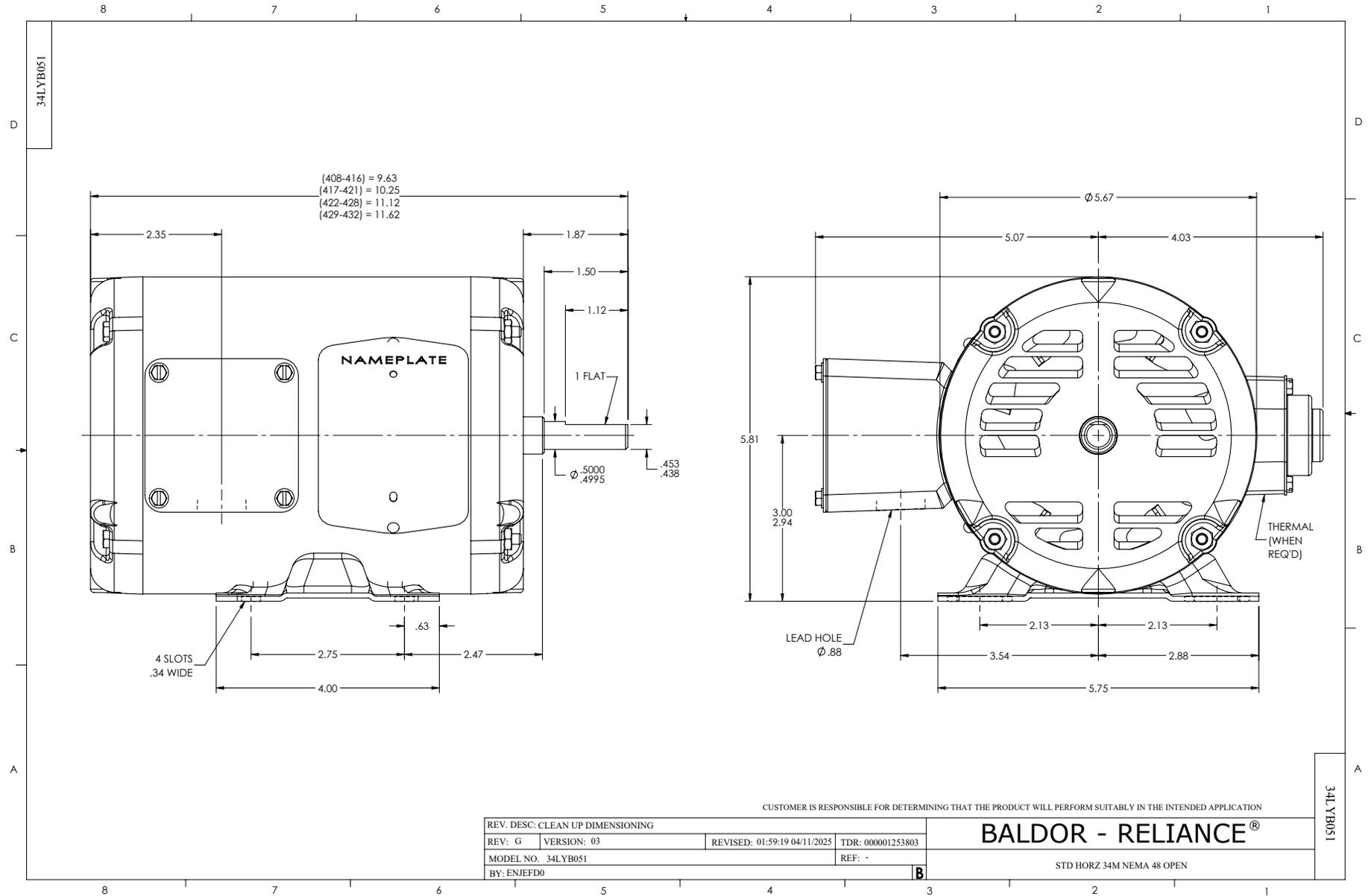
Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 3450 RPM 460 V 3416M

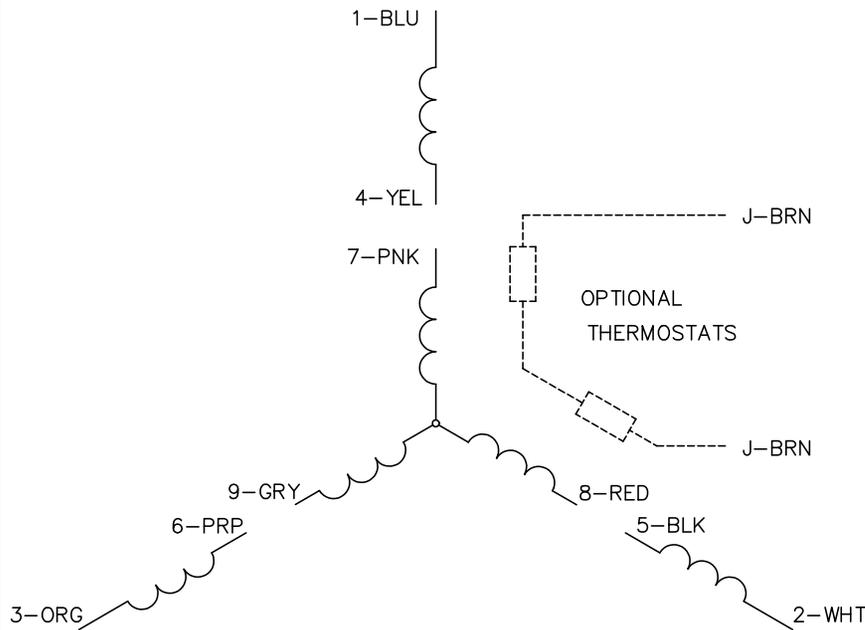
TORQUES (LB-FT): PO=4.81 PU=3.29 LR=4.44 LRA=7.88



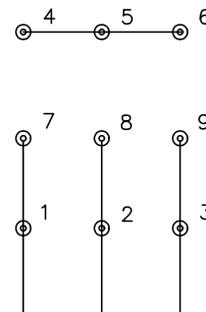
6/9/2025 ACPERF, record # 44903



CD0005

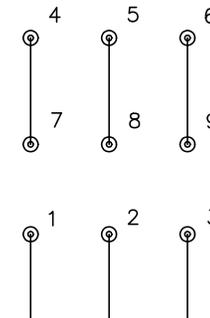


LOW VOLTAGE  
(2Y)



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