

**BALDOR® • RELIANCE** 

**Product Information Packet**

**CM3538**

**.5HP, 1720RPM, 3PH, 60HZ, 56C, 3416M, TEFC, F1**

| Part Detail |        |             |            |             |        |               |            |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision:   | A      | Status:     | PRD/A      | Change #:   |        | Proprietary:  | No         |
| Type:       | AC     | Elec. Spec: | 34WGR706   | CD Diagram: | CD0005 | Mfg Plant:    |            |
| Mech. Spec: | 34A062 | Layout:     | 34LYA062   | Poles:      | 04     | Created Date: | 11-19-2020 |
| Base:       | RG     | Eff. Date:  | 02-18-2021 | Leads:      | 9#18   |               |            |

| Specs                           |                         |                                |                    |
|---------------------------------|-------------------------|--------------------------------|--------------------|
| Catalog Number:                 | CM3538                  | Insulation Class:              | B                  |
| Enclosure:                      | TEFC                    | Inverter Code:                 | Not Inverter       |
| Frame:                          | 56C                     | KVA Code:                      | J                  |
| Frame Material:                 | Steel                   | Lifting Lugs:                  | No Lifting Lugs    |
| Output @ Frequency:             | .500 HP @ 60 HZ         | Locked Bearing Indicator:      | Locked Bearing     |
| Synchronous Speed @ Frequency:  | 1800 RPM @ 60 HZ        | Motor Lead Quantity/Wire Size: | 9 @ 18 AWG         |
| Voltage @ Frequency:            | 460.0 V @ 60 HZ         | Motor Lead Exit:               | Ko Box             |
|                                 | 230.0 V @ 60 HZ         | Motor Lead Termination:        | None               |
| XP Class and Group:             | None                    | Motor Type:                    | 3416M              |
| XP Division:                    | Not Applicable          | Mounting Arrangement:          | F1                 |
| Agency Approvals:               | CSA                     | Power Factor:                  | 75                 |
|                                 | UR                      | Product Family:                | General Purpose    |
| Auxillary Box:                  | No Auxillary Box        | Pulley End Bearing Type:       | Ball               |
| Auxillary Box Lead Termination: | None                    | Pulley Face Code:              | C-Face             |
| Base Indicator:                 | Rigid                   | Pulley Shaft Indicator:        | Standard           |
| Bearing Grease Type:            | Polyrex EM (-20F +300F) | Rodent Screen:                 | None               |
| Blower:                         | None                    | Shaft Extension Location:      | Pulley End         |
| Current @ Voltage:              | .800 A @ 460.0 V        | Shaft Ground Indicator:        | No Shaft Grounding |

|                                       |                           |                                    |                     |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
|                                       | 1.600 A @ 230.0 V         | <b>Shaft Rotation:</b>             | Reversible          |
|                                       | 1.700 A @ 208.0 V         | <b>Shaft Slinger Indicator:</b>    | No Slinger          |
| <b>Design Code:</b>                   | B                         | <b>Speed Code:</b>                 | Single Speed        |
| <b>Drip Cover:</b>                    | No Drip Cover             | <b>Motor Standards:</b>            | NEMA                |
| <b>Duty Rating:</b>                   | CONT                      | <b>Starting Method:</b>            | Direct on line      |
| <b>Electrically Isolated Bearing:</b> | Not Electrically Isolated | <b>Thermal Device - Bearing:</b>   | None                |
| <b>Feedback Device:</b>               | NO FEEDBACK               | <b>Thermal Device - Winding:</b>   | None                |
| <b>Front Face Code:</b>               | Standard                  | <b>Vibration Sensor Indicator:</b> | No Vibration Sensor |
| <b>Front Shaft Indicator:</b>         | None                      | <b>Winding Thermal 1:</b>          | None                |
| <b>Heater Indicator:</b>              | No Heater                 | <b>Winding Thermal 2:</b>          | None                |

| Nameplate NP1256L |              |  |      |    |     |      |  |                |     |   |
|-------------------|--------------|--|------|----|-----|------|--|----------------|-----|---|
| CAT.NO.           | CM3538       |  |      |    |     |      |  |                |     |   |
| SPEC.             | 34A062R706   |  |      |    |     |      |  |                |     |   |
| HP                | .5           |  |      |    |     |      |  |                |     |   |
| VOLTS             | 230/460      |  |      |    |     |      |  |                |     |   |
| AMP               | 1.6/.8       |  |      |    |     |      |  |                |     |   |
| RPM               | 1720         |  |      |    |     |      |  |                |     |   |
| FRAME             | 56C          |  |      |    | HZ  | 60   |  |                | PH  | 3 |
| SER.F.            | 1.25         |  | CODE | J  | DES | B    |  | CLASS          | B   |   |
| NEMA-NOM-EFF      | 75.5         |  | PF   | 75 |     |      |  |                |     |   |
| RATING            | 40C AMB-CONT |  |      |    |     |      |  |                |     |   |
| CC                |              |  |      |    |     |      |  | USABLE AT 208V | 1.7 |   |
| DE                | 6203         |  |      |    | ODE | 6203 |  |                |     |   |
| ENCL              | TEFC         |  | SN   |    |     |      |  |                |     |   |
|                   | SFA 1.9/0.95 |  |      |    |     |      |  |                |     |   |

| Parts List    |  |          |
|---------------|--|----------|
| Part Number   | Description                              | Quantity |
| SA387926      | SA 34A062R706                            | 1.000 EA |
| RA378266      | RA 34A062R706                            | 1.000 EA |
| NS2512A01     | INSULATOR, CONDUIT BOX X                 | 1.000 EA |
| 34CB3002A     | CB CAST W/.88 DIA HOLE                   | 1.000 EA |
| 34GS1029A01   | GASKET, CONDUIT BOX                      | 1.000 EA |
| 51XB1016A07   | 10-16 X 7/16 HXWSSLD SERTYB              | 2.000 EA |
| 11XW1032G06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 EA |
| 34EP3102A01SP | FR ENDPLATE, MACH                        | 1.000 EA |
| HW5100A03     | WAVY WASHER (W1543-017)                  | 1.000 EA |
| 34EP3300A24SP | PU ENDPLATE, MACH                        | 1.000 EA |
| 51XN1032A20   | 10-32 X 1 1/4 HX WS SL SR                | 2.000 EA |
| 34FN3002A01SP | EXTERNAL FAN, PLASTIC, .637/.639 HUB W/  | 1.000 EA |
| 34FH4002A01SP | IEC FH NO GREASER PRIMED                 | 1.000 EA |
| 51XW1032A06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 EA |
| 34CB4517      | CB LID 4 MTG HOLES .22 DIA STAMPED, FOR  | 1.000 EA |
| 34GS1031A01   | GASKET, FLAT CONDUIT BOX LID (LEXIDE)    | 1.000 EA |
| 51XW0832A07   | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 EA |
| MG1000G27     | MED CHARCOAL METALLIC GREY 400-0096      | 0.014 GA |
| 85XU0407S04   | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 EA |
| HA3100A12     | THRUBOLT 10-32 X 7.375                   | 4.000 EA |
| HW2501D13     | KEY, 3/16 SQ X 1.375                     | 1.000 EA |
| HA7000A04     | KEY RETAINER 0.625 DIA SHAFTS            | 1.000 EA |
| MN416A01      | TAG-INSTAL-MAINT no wire (2100/bx) 4/22  | 1.000 EA |
| LC0005E01     | CONN.DIA./WARNING LABEL (LC0005/LB1119N) | 1.000 EA |

| <b>Parts List (continued)</b> |                                     |                 |
|-------------------------------|-------------------------------------|-----------------|
| <b>Part Number</b>            | <b>Description</b>                  | <b>Quantity</b> |
| NP1256L                       | ALUM UL CSA CC INDUSTRIAL MOTOR A60 | 1.000 EA        |
| 35PA1066                      | PKG GRP, PRINT PK1001A01            | 1.000 EA        |

**AC Induction Motor Performance Data**

Record # 85443

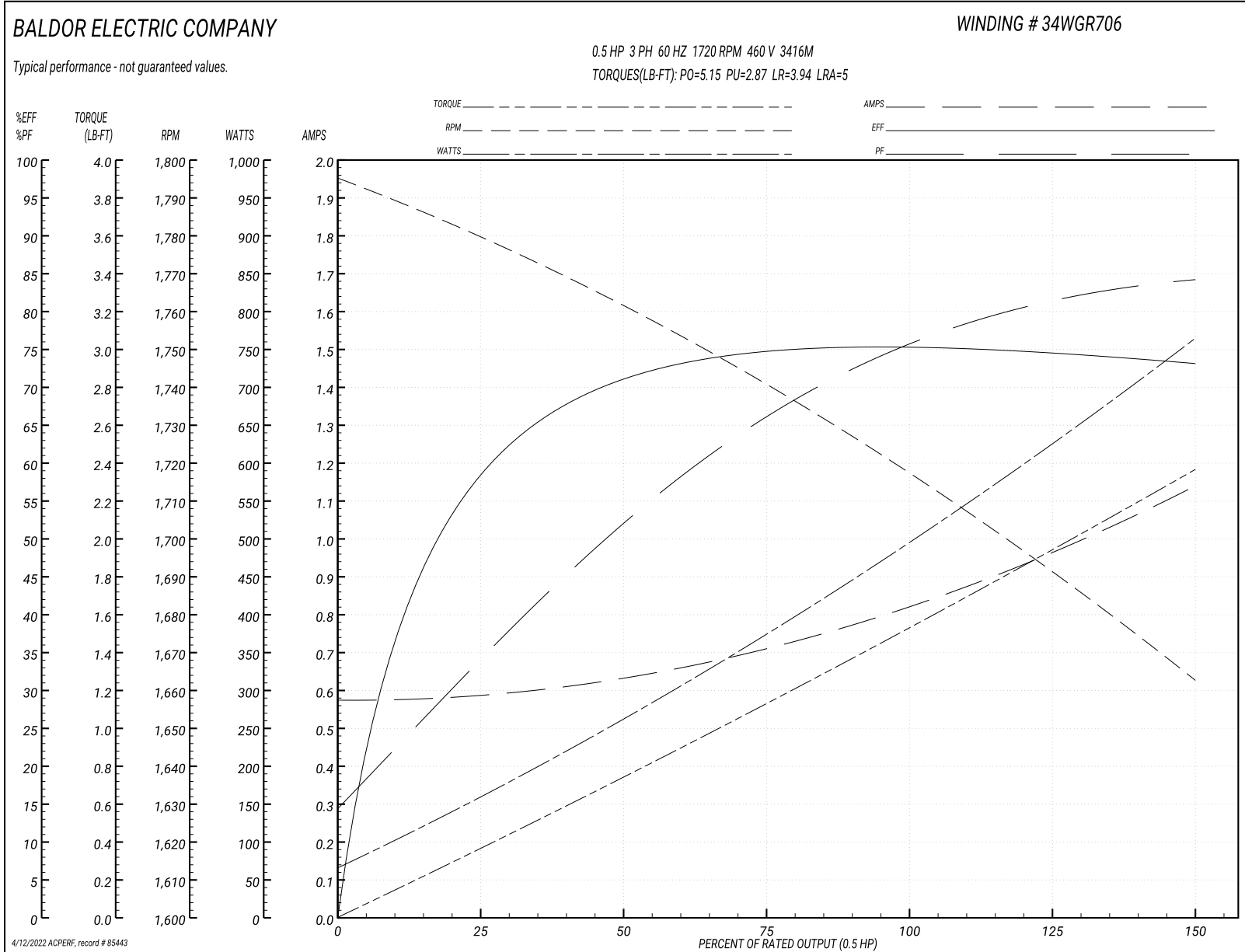
Typical performance - not guaranteed values

| Winding: 34WGR706-R001 |                   | Type: 3416M               | Enclosure: TEFC                                  |  |
|------------------------|-------------------|---------------------------|--|--|
| <b>Nameplate Data</b>  |                   |                           | <b>460 V, 60 Hz:<br/>High Voltage Connection</b> |  |
| Rated Output (HP)      | 0.5               | Full Load Torque          | 1.53 LB-FT                                       |  |
| Volts                  | 230/460           | Start Configuration       | direct on line                                   |  |
| Full Load Amps         | 1.6/0.8           | Breakdown Torque          | 5.15 LB-FT                                       |  |
| R.P.M.                 | 1720              | Pull-up Torque            | 2.87 LB-FT                                       |  |
| Hz                     | 60 Phase          | Locked-rotor Torque       | 3.94 LB-FT                                       |  |
| NEMA Design Code       | B KVA Code        | Starting Current          | 5 A  |  |
| Service Factor (S.F.)  | 1.25              | No-load Current           | 0.577 A  |  |
| NEMA Nom. Eff.         | 75.5 Power Factor | Line-line Res. @ 25°C     | 48.9 Ω   |  |
| Rating - Duty          | 40C AMB-CONT      | Temp. Rise @ Rated Load   | 50°C   |  |
| S.F. Amps              | 1.9/0.95          | Temp. Rise @ S.F. Load    | 70°C   |  |
|                        |                   | Locked-rotor Power Factor | 70.8   |  |
|                        |                   | Rotor inertia             | 0.0381 lb-ft <sup>2</sup>                        |  |

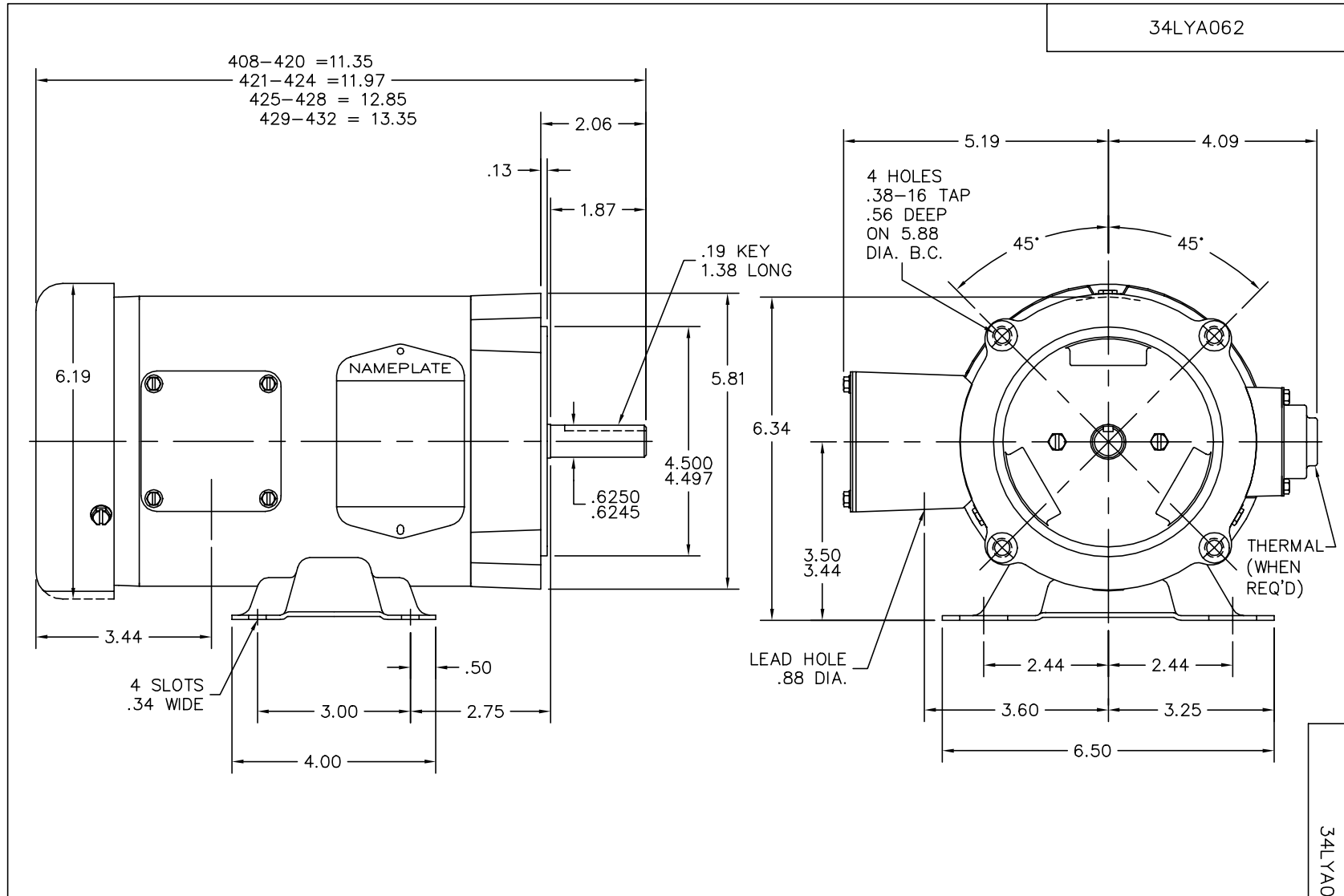
**Load Characteristics 460 V, 60 Hz, 0.5 HP**

| % of Rated Load | 25    | 50    | 75    | 100   | 125   | 150  | S.F.  |
|-----------------|-------|-------|-------|-------|-------|------|-------|
| Power Factor    | 34    | 53    | 66    | 75    | 81    | 84   | 81    |
| Efficiency      | 58.6  | 70.6  | 74.6  | 75.5  | 74.8  | 72.9 | 74.8  |
| Speed           | 1779  | 1761  | 1741  | 1718  | 1692  | 1662 | 1692  |
| Line amperes    | 0.583 | 0.631 | 0.712 | 0.824 | 0.962 | 1.14 | 0.962 |

Performance Graph at 460V, 60Hz, 0.5HP Typical performance - Not guaranteed values







CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

|  |                              |                   |
|--|------------------------------|-------------------|
| REV. DESC: UPDATE BAND AND SHAFT TO NONE DASH (-) PART |                              |                   |
| REV. LTR: R  | VERSION: 03                  | TDR: 000001042106 |
| FILE: \AAA\00000\725                                   | REVISED: 11:32:57 09/05/2017 | BY: ENMAIYO       |
| MTL: -   | Ⓢ Ⓜ                          |                   |

**BALDOR**

STD HORZ 34M NEMA 56C TEFC

SH 1 of 1

34LYA062

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.

|   |         |                         |              |
|---|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                         |              |
| REV. LTR: E                               | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| 900000                                    |         | FILE: AAA00005140       | MDL: -       |
|   |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005