

# **BALDOR**® • **RELIANCE**

## **Product Information Packet**

# **VDM3538**

**.5HP, 1725RPM, 3PH, 60HZ, 56C, 3420M, TEFC, F1**

| Part Detail |      |                |       |             |          |               |            |
|-------------|------|----------------|-------|-------------|----------|---------------|------------|
| Revision:   | -    | Status:        | PRD/A | Change #:   |          | Proprietary:  | No         |
| Type:       | AC   | Prod. Type:    | 3420M | Elec. Spec: | 34WG0097 | CD Diagram:   | CD0005     |
| Enclosure:  | TEFC | Mfg Plant:     |       | Mech. Spec: | 34M808   | Layout:       | 34LYM808   |
| Frame:      | 56C  | Mounting:      | F1    | Poles:      | 04       | Created Date: | 04-18-2016 |
| Base:       | N    | Rotation:      | R     | Insulation: | F        | Eff. Date:    | 05-18-2016 |
| Leads:      | 9#18 |                |       |             |          | Replaced By:  |            |
| Literature: |      | Elec. Diagram: |       |             |          |               |            |

| Nameplate NP3556E |                 |  |  |          |      |    |            |      |  |          |    |  |
|-------------------|-----------------|--|--|----------|------|----|------------|------|--|----------|----|--|
| CAT NO            | VDM3538         |  |  |          |      |    |            |      |  |          |    |  |
| SPEC.             | 34M808-0097G1   |  |  |          |      |    | ENCL       | TEFC |  |          |    |  |
| FRAME             | 56C             |  |  | HP       | .5   |    |            |      |  |          |    |  |
| VOLTS             | 230/460 SFA 2/1 |  |  |          |      |    |            |      |  |          |    |  |
| FLA               | 1.8/.9          |  |  |          | I.P. | 56 |            |      |  |          |    |  |
| RPM               | 1725            |  |  | RPM MAX  | 2700 |    |            |      |  |          |    |  |
| HZ                | 60              |  |  | PH       | 3    |    | CLASS      | F    |  |          |    |  |
| SER.F.            | 1.25            |  |  | DES      | B    |    | CC         |      |  |          |    |  |
| NEMA-NOM-EFF      | 75.5            |  |  |          |      |    |            |      |  |          |    |  |
| RATING            | 40C AMB-CONT    |  |  |          |      |    |            |      |  |          |    |  |
| DE BRG            | 6203            |  |  | ODE BRG  | 6203 |    |            |      |  |          |    |  |
| GREASE            | POLYREX EM      |  |  |          |      |    |            |      |  |          |    |  |
| C HP FR           | 60              |  |  | C HP TO  | 90   |    |            |      |  |          |    |  |
| CT HZ FROM        | 6               |  |  | CT HZ TO | 60   |    |            |      |  |          |    |  |
| SER.NO            |                 |  |  |          |      |    |            |      |  |          |    |  |
|                   | 50C AT 1.0SF    |  |  |          |      |    |            |      |  |          |    |  |
|                   |                 |  |  |          |      |    | VT HZ FROM | 6    |  | VT HZ TO | 60 |  |

| Parts List      |  |          |
|-----------------|--|----------|
| Part Number     | Description                              | Quantity |
| SA320608        | SA 34M808-0097G1                         | 1.000 EA |
| RA308338        | RA 34M808-0097G1                         | 1.000 EA |
| S/P107-000-001  | SUPER E PROC'S-FS, WS & CK PLTS          | 1.000 EA |
| NS2512A01       | INSULATOR, CONDUIT BOX X                 | 1.000 EA |
| 34CB1000A01E    | CONDUIT BOX, WASHDOWN, W/E-COATED        | 1.000 EA |
| 34GS1017        | GASKET, CONDUIT BOX MODEL 34 (BLACK NEOP | 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 |
| 34EP1100A137LP2 | FRONT EP TEFC 203 BRG W/ SEAL            | 1.000 EA |
| HW4601A23       | INPRO SEAL, 203 BRG, VBX                 | 1.000 EA |
| HW4500A33       | 1/8 NPT STAINLESS,HOLO-KROME #13002,PRES | 3.000 EA |
| HA4054          | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 EA |
| HW5100A03SP     | WAVY WASHER (W1543-017)                  | 1.000 EA |
| 34EP1300A35E    | ENDPLATE, MACH W/E-COAT                  | 1.000 EA |
| HW4606A01       | JM CLIPPER/SEAL (WDE-0667-1064-BH49)     | 1.000 EA |
| HW4500A33       | 1/8 NPT STAINLESS,HOLO-KROME #13002,PRES | 3.000 EA |
| HA4054          | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 EA |
| 12XN1032S20     | 10-32 X 1-1/4 HEX M.S. , STAINLESS STEEL | 2.000 EA |
| 34FN3002A01SP   | EXTERNAL FAN, PLASTIC, .637/.639 HUB W/  | 1.000 EA |
| 34FH4002A01LP2  | IEC FH NO GREASER                        | 1.000 EA |
| 11XW1032S06     | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 3.000 EA |
| 34CB4500E       | CONDUIT BOX LID, E-COAT                  | 1.000 EA |
| 34GS1007        | GASKET, CONDUIT BOX LID MODEL 34 (BLACK  | 1.000 EA |
| 59XW0832S07     | TAPTITE II,HEX WSHR UNSLTD SER,410 S.S., | 4.000 EA |

| <b>Parts List (continued)</b> |  |                 |
|-------------------------------|--|-----------------|
| <b>Part Number</b>            | <b>Description</b>                       | <b>Quantity</b> |
| HW2502D13                     | SS KEY, 3/16 SQ X 1.375                  | 1.000 EA        |
| HA7000A04                     | KEY RETAINER 0.625 DIA SHAFTS            | 1.000 EA        |
| MJ5001A02                     | 732 CL SEALANT 3 OZ DIXIE BEARING 289100 | 0.001 EA        |
| LB1164                        | LABEL,WARNING AND DRAIN                  | 1.000 EA        |
| MJ5001A23                     | P.D. GEORGE B-276 AIR DRY VARNISH        | 0.001 GA        |
| LB1000                        | LABEL, DIRTY DUTY                        | 1.000 EA        |
| HW3001B01                     | BRASS CUP WASHER, FOR #8 SCREW           | 1.000 EA        |
| WD1000D21                     | TRM,T&B #B71M,RING,18-14,.25,NON-INSL    | 9.000 EA        |
| 10XF0440S02                   | 04-40 X 1/8 TYPE F HEX HD STAINLESS STIC | 2.000 EA        |
| MG2000A17                     | RUST INHIBITOR PART # SRPO #20           | 0.001 GA        |
| MG1025L01                     | WILKOFASST FD, 786.04, BLACK             | 0.014 GA        |
| MG1500Y02                     | PRIMER,347.29+347.29C ACTIVATOR WILKOPON | 0.010 GA        |
| HA3100S08                     | THRUBOLT 7.375LG SS                      | 4.000 EA        |
| MN416A01                      | TAG-INSTAL-MAINT no wire (1200/bx) 11/14 | 1.000 EA        |
| LC0005                        | CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING  | 1.000 EA        |
| NP3556E                       | SS DIRTY DUTY PLUS INV UL CSA-C US EEV C | 1.000 EA        |
| 35PA1000                      | PKG GRP, PRINT PK1008A06                 | 1.000 EA        |
| PK3083T                       | STYROFOAM PACKING CRADLE W/TAPE          | 1.000 EA        |

**AC Induction Motor Performance Data**

Record # 55809 - Typical performance - not guaranteed values

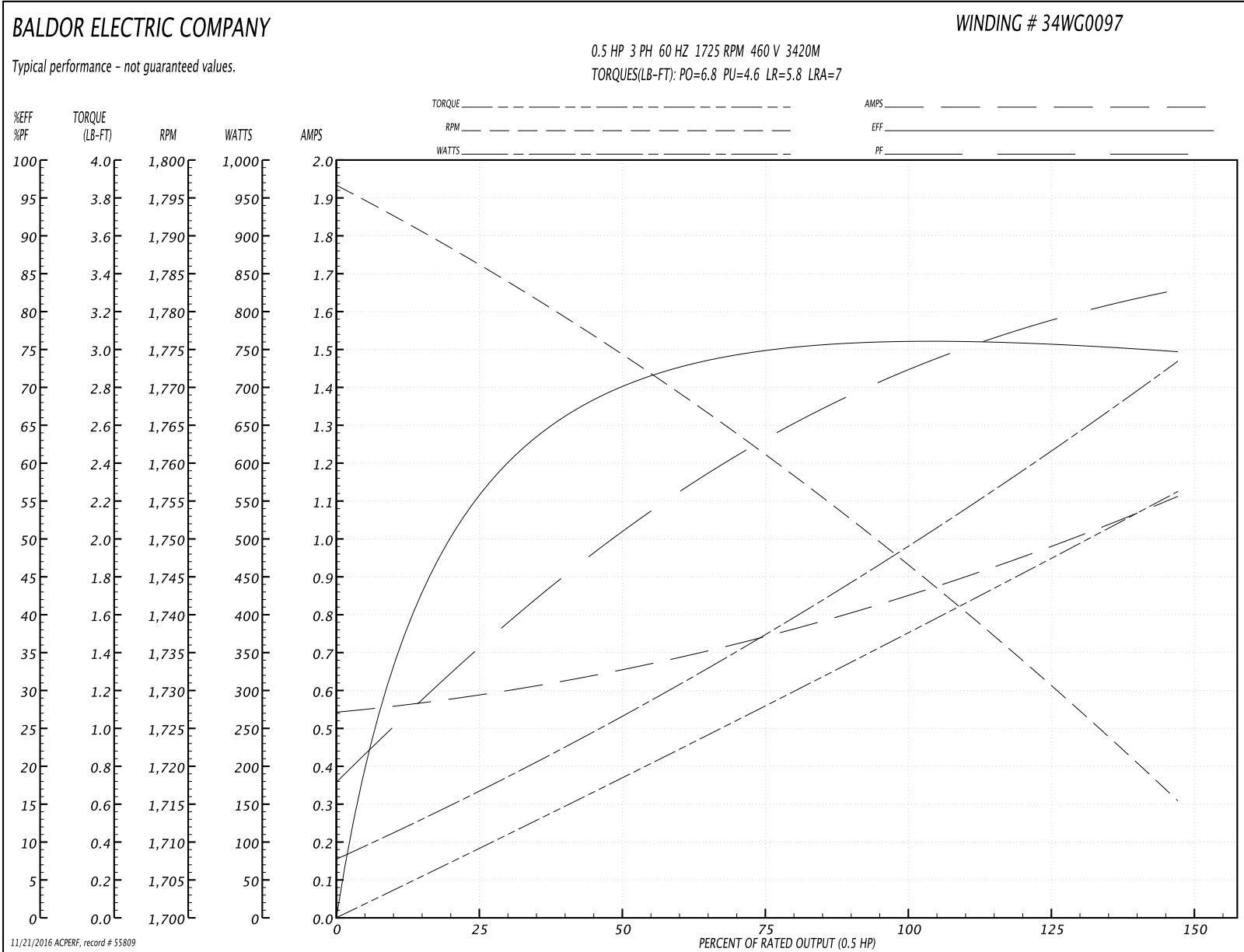
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 34WG0097-R039 | <b>Type:</b> 3420M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

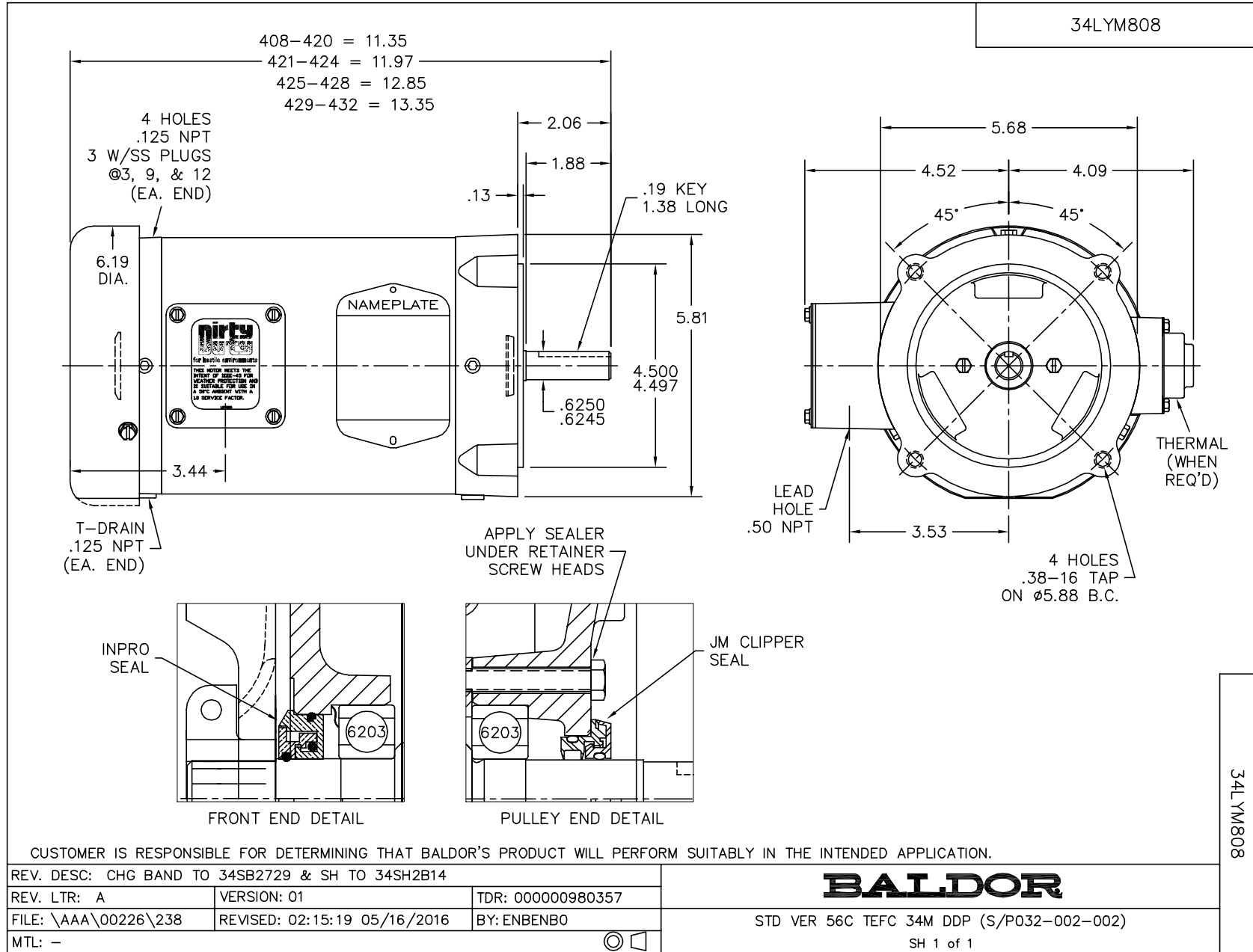
| Nameplate Data        |              |              |    | 460 V, 60 Hz:<br>High Voltage Connection |                           |
|-----------------------|--------------|--------------|----|--|---------------------------|
| Rated Output (HP)     | .5           |              |    | Full Load Torque                         | 1.5 LB-FT                 |
| Volts                 | 230/460      |              |    | Start Configuration                      | direct on line            |
| Full Load Amps        | 1.8/.9       |              |    | Breakdown Torque                         | 6.8 LB-FT                 |
| R.P.M.                | 1725         |              |    | Pull-up Torque                           | 4.6 LB-FT                 |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                      | 5.8 LB-FT                 |
| NEMA Design Code      | B            | KVA Code     | M  | Starting Current                         | 7 A                       |
| Service Factor (S.F.) | 1.25         |              |    | No-load Current                          | 0.54 A                    |
| NEMA Nom. Eff.        | 75.5         | Power Factor | 69 | Line-line Res. @ 25°C                    | 27.5 Ω                    |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                  | 45°C                      |
| S.F. Amps             | 2/1          |              |    | Temp. Rise @ S.F. Load                   | 54°C                      |
|                       |              |              |    | Locked-rotor Power Factor                | 56.3                      |
|                       |              |              |    | Rotor inertia                            | 0.0476 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    | 36   | 53   | 64   | 71   | 77   | 84   | 77   |
| Efficiency      | 55   | 69   | 74.4 | 78   | 75.7 | 74.4 | 75.7 |
| Speed           | 1787 | 1774 | 1760 | 1749 | 1728 | 1717 | 1728 |
| Line amperes    | 0.6  | 0.65 | 0.74 | 0.84 | 1    | 1.1  | 1    |

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





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 |
| 90000                                     |         | FILE: AAA00005140       | MDL: -       |
|   |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005