

**BALDOR® • RELIANCE** 

**Product Information Packet**

**VM3537-57**

**.5HP,2850 IP44RPM,3PH,50HZ,56C,3413M**

| Part Detail |        |             |            |             |        |               |            |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision:   | K      | Status:     | PRD/A      | Change #:   |        | Proprietary:  | No         |
| Type:       | AC     | Elec. Spec: | 34WGX538   | CD Diagram: | CD0022 | Mfg Plant:    |            |
| Mech. Spec: | 34A063 | Layout:     | 34LYA063   | Poles:      | 02     | Created Date: | 09-08-2011 |
| Base:       | N      | Eff. Date:  | 04-06-2020 | Leads:      | 6#18   |               |            |

| Specs                           |                         |                                |                 |
|---------------------------------|-------------------------|--------------------------------|-----------------|
| Catalog Number:                 | VM3537-57               | Insulation Class:              | F               |
| Enclosure:                      | TEFC                    | Inverter Code:                 | Not Inverter    |
| Frame:                          | 56C                     | KVA Code:                      | L               |
| Frame Material:                 | Steel                   | Lifting Lugs:                  | No Lifting Lugs |
| Output @ Frequency:             | .500 HP @ 50 HZ         | Locked Bearing Indicator:      | Locked Bearing  |
| Synchronous Speed @ Frequency:  | 3000 RPM @ 50 HZ        | Motor Lead Quantity/Wire Size: | 6 @ 18 AWG      |
| Voltage @ Frequency:            | 400.0 V @ 50 HZ         | Motor Lead Exit:               | Ko Box          |
|                                 | 230.0 V @ 50 HZ         | Motor Lead Termination:        | Flying Leads    |
| XP Class and Group:             | None                    | Motor Type:                    | 3413M           |
| XP Division:                    | Not Applicable          | Mounting Arrangement:          | F1              |
| Agency Approvals:               | UR                      | Power Factor:                  | 74              |
|                                 | WEEE                    | Product Family:                | General Purpose |
|                                 | CSA                     | Pulley End Bearing Type:       | Ball            |
|                                 | CE                      | Pulley Face Code:              | C-Face          |
| Auxillary Box:                  | No Auxillary Box        | Pulley Shaft Indicator:        | Standard        |
| Auxillary Box Lead Termination: | None                    | Rodent Screen:                 | None            |
| Base Indicator:                 | No Mounting             | RoHS Status:                   | ROHS COMPLIANT  |
| Bearing Grease Type:            | Polyrex EM (-20F +300F) | Shaft Extension Location:      | Pulley End      |

|                                       |                           |                                    |                     |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| <b>Blower:</b>                        | None                      | <b>Shaft Ground Indicator:</b>     | No Shaft Grounding  |
| <b>Current @ Voltage:</b>             | 1.100 A @ 400.0 V         | <b>Shaft Rotation:</b>             | Reversible          |
|                                       | 1.900 A @ 230.0 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 NP1372L |                |  |      |    |     |      |  |    |                |   |
|-------------------|----------------|--|------|----|-----|------|--|----|----------------|---|
| CAT.NO.           | VM3537-57      |  |      |    |     |      |  |    |                |   |
| SPEC.             | 34A063X538G1   |  |      |    |     |      |  |    |                |   |
| HP                | .5 /KW .37     |  |      |    |     |      |  |    |                |   |
| VOLTS             | 230/400        |  |      |    |     |      |  |    |                |   |
| AMP               | 1.9/1.1        |  |      |    |     |      |  |    |                |   |
| RPM               | 2850 IP54 KG10 |  |      |    |     |      |  |    |                |   |
| FRAME             | 56C            |  |      |    | HZ  | 50   |  |    | PH             | 3 |
| SER.F.            | 1.25           |  | CODE | L  | DES | B    |  | CL | F              |   |
| NEMA-NOM-EFF      | 72             |  | PF   | 74 |     |      |  |    |                |   |
| RATING            | 40C AMB-CONT   |  |      |    |     |      |  |    |                |   |
| CC                |                |  |      |    |     |      |  |    | USABLE AT 208V |   |
| DE                | 6203           |  |      |    | ODE | 6203 |  |    |                |   |
| ENCL              | TEFC           |  | SN   |    |     |      |  |    |                |   |
|                   | SFA 2.1/1.2    |  |      |    |     |      |  |    |                |   |

| Parts List    |  |          |
|---------------|--|----------|
| Part Number   | Description                              | Quantity |
| SA230330      | SA 34A063X538G1                          | 1.000 EA |
| RA217360      | RA 34A063X538G1                          | 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 |
| 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 |
| HW2501D13     | KEY, 3/16 SQ X 1.375                     | 1.000 EA |
| HW3001B02     | BRASS CUP WASHER W/GROUND SYMBOL TAB,    | 1.000 EA |
| 34FH4002A01SP | IEC FH NO GREASER PRIMED                 | 1.000 EA |
| HA7000A04     | KEY RETAINER 0.625 DIA SHAFTS            | 1.000 EA |
| MG1000G27     | MED CHARCOAL METALLIC GREY 400-0096      | 0.014 GA |
| HA4067A01     | PUSH IN DRAIN FITTING (BLACK)            | 1.000 EA |
| HA4067A01     | PUSH IN DRAIN FITTING (BLACK)            | 1.000 EA |
| HA3100A12     | THRUBOLT 10-32 X 7.375                   | 4.000 EA |

| <b>Parts List (continued)</b> |   |                 |
|-------------------------------|---|-----------------|
| <b>Part Number</b>            | <b>Description</b>                      | <b>Quantity</b> |
| LB1119N                       | WARNING LABEL                           | 1.000 EA        |
| LC0034                        | CONNECTION LABEL                        | 1.000 EA        |
| MN416A01                      | TAG-INSTAL-MAINT no wire (1200/bx) 3/19 | 1.000 EA        |
| NP1372L                       | ALUM UL CSA CE CC                       | 1.000 EA        |
| 34PA1002                      | PKG GRP, PRINT PK1001A01                | 1.000 EA        |

**AC Induction Motor Performance Data**

Record # 35153 - Typical performance - not guaranteed values

|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 34WGX538-R003 | <b>Type:</b> 3413M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data        |              |              |    | 400 V, 50 Hz:<br>High Voltage Connection |                           |
|-----------------------|--------------|--------------|----|--|---------------------------|
| Rated Output (HP)     | .5           |              |    | Full Load Torque                         | 0.92 LB-FT                |
| Volts                 | 230/400      |              |    | Start Configuration                      | direct on line            |
| Full Load Amps        | 1.9/1.1      |              |    | Breakdown Torque                         | 3.8 LB-FT                 |
| R.P.M.                | 2850         |              |    | Pull-up Torque                           | 3.4 LB-FT                 |
| Hz                    | 50           | Phase        | 3  | Locked-rotor Torque                      | 3.5 LB-FT                 |
| NEMA Design Code      | B            | KVA Code     | L  | Starting Current                         | 7 A                       |
| Service Factor (S.F.) | 1.25         |              |    | No-load Current                          | 0.8 A                     |
| NEMA Nom. Eff.        | 72           | Power Factor | 74 | Line-line Res. @ 25°C                    | 27 Ω                      |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                  | 63°C                      |
| S.F. Amps             | 2.1/1.2      |              |    | Temp. Rise @ S.F. Load                   | 75°C                      |
|                       |              |              |    | Locked-rotor Power Factor                | 78                        |
|                       |              |              |    | Rotor inertia                            | 0.0121 LB-FT <sup>2</sup> |

Load Characteristics 400 V, 50 Hz, 0.5 HP

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 34   | 49   | 61   | 70   | 77   | 81   | 77   |
| Efficiency      | 46.8 | 62   | 68.7 | 71.7 | 72.8 | 72.7 | 72.8 |
| Speed           | 2985 | 2927 | 2893 | 2857 | 2817 | 2772 | 2817 |
| Line amperes    | 0.8  | 0.9  | 1    | 1.1  | 1.2  | 1.4  | 1.2  |

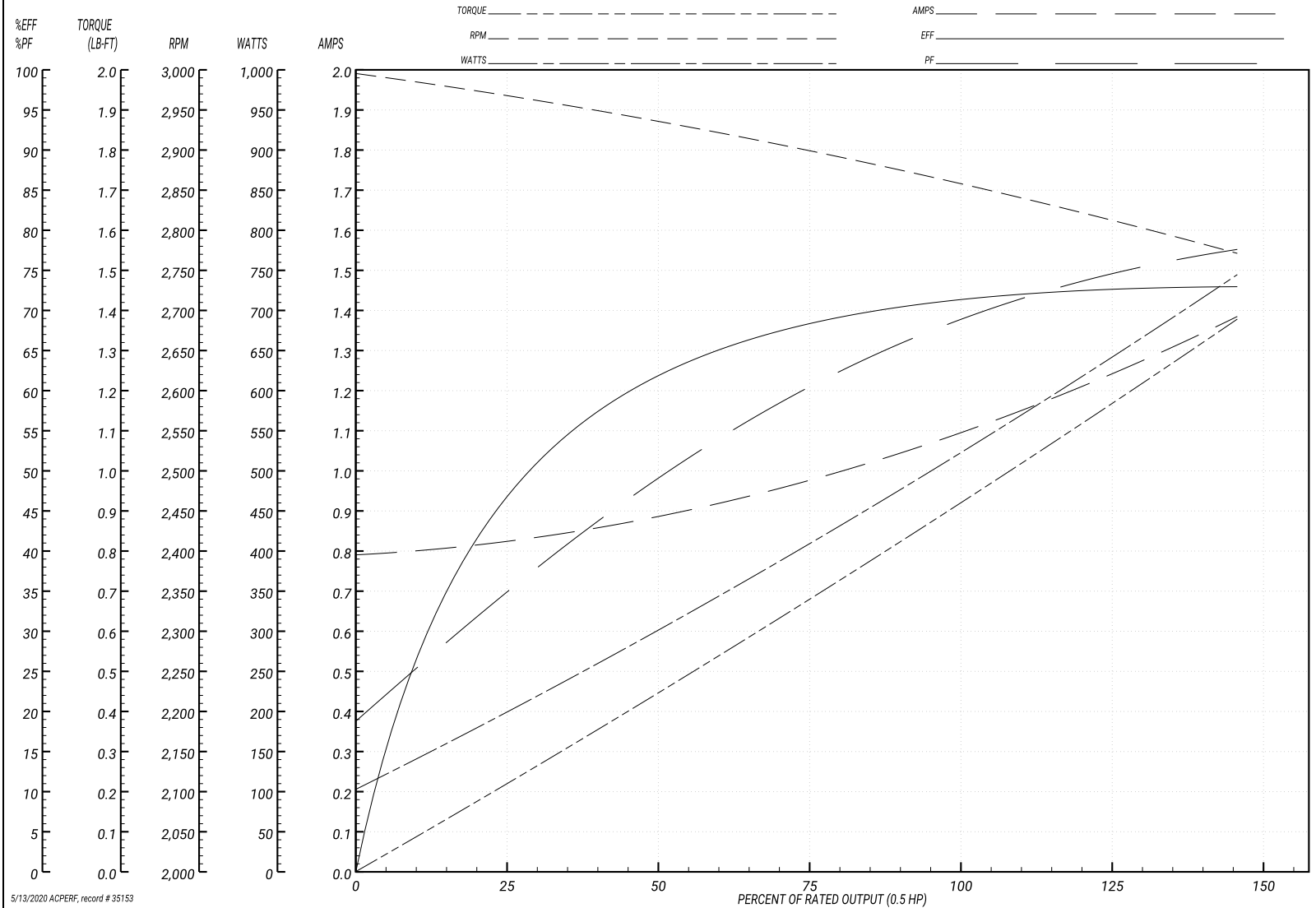
Performance Graph at 400V, 50Hz, 0.5HP Typical performance - Not guaranteed values

ABB Motors and Mechanical Inc.

WINDING # 34WG538

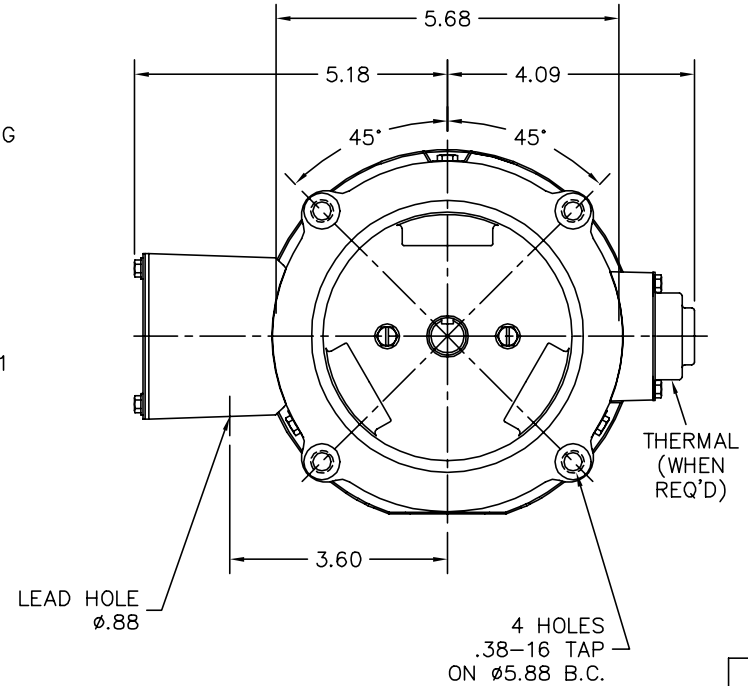
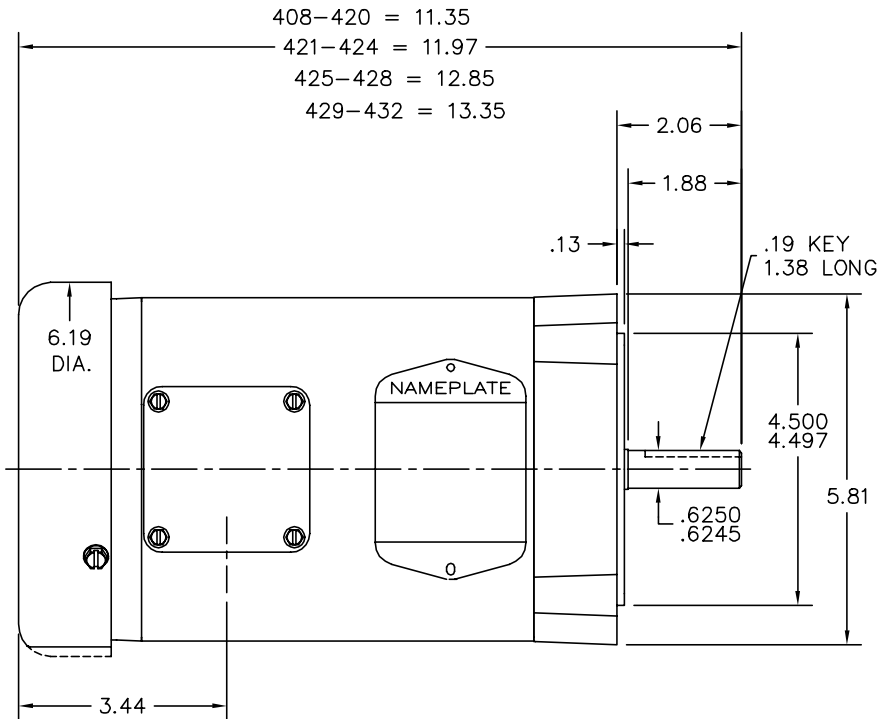
Typical performance - not guaranteed values.

0.5 HP 3 PH 50 HZ 2850 RPM 400 V 3413M  
 TORQUES(LB-FT): PO=3.8 PU=3.4 LR=3.5 LRA=7



5/13/2020 ACPERF, record # 35153

34LYA063



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

|                         |                              |                   |
|-------------------------|------------------------------|-------------------|
| REV. DESC: UPDATE PARTS |                              |                   |
| REV. LTR: L             | VERSION: 02                  | TDR: 000000998268 |
| FILE: \AAA\00000\724    | REVISED: 02:36:11 09/27/2016 | BY: ENBENBO       |
| MTL: -                  |                              |                   |

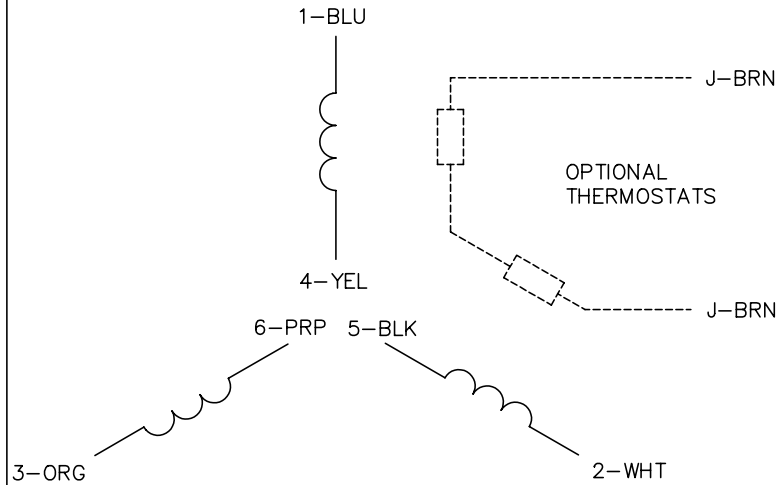
**BALDOR**

STD VERT 34M NEMA 56C TEFC

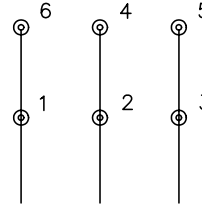
SH 1 of 1

34LYA063

CD0022

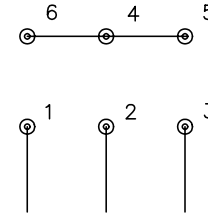


LOW VOLTAGE  
(1D)



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: F                               | BY: JLP | REVISED: 01/21/99 3:54 | TDR: 0171435 |
| CD0022                                    |         | FILE: AAA00005144      | MDL: -       |
|   |         | MTL: -                 |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 6 LEADS, DELTA/WYE CONNECTION

CD0022