ABB BALDOR RELIANCE

# Customer information packet

NM3538

.5HP, 1725RPM, 3PH, 60HZ, 56, 3420M, TENV, F1
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TENV |
| **Frame** | 56 |
| **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** | 1800 RPM @ 60 HZ |
| **Voltage @ Frequency** | 230.0 V @ 60 HZ |
| | 460.0 V @ 60 HZ |
| **Agency Approvals** | C UR US |
| **Ambient Temperature** | 40 °C |
| **Auxiliary Box** | NO AUXILLARY BOX |
| **Auxiliary Box Lead Termination** | None |
| **Base Indicator** | Rigid |
| **Bearing Grease Type** | Polyrex EM (-20F +300F) |
| **Blower** | None |
| **Current @ Voltage** | .900 A @ 460.0 V |
| | 1.800 A @ 230.0 V |
| | 2.100 A @ 208.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 75.5 % |
| **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** | 0.9 a |

## Part Detail

| | |
|---|---|
| **Revision** | S |
| **Type** | AC |
| **Mech. spec.** | 34A076 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 34WG0097 |
| **Layout** | 34LYA076 |
| **Eff. date** | 12-18-2024 |
| **CD Diagram** | CD0005 |
| **Poles** | 04 |
| **Leads** | 9#18 |
| **Proprietary** | False |
| **Created date** | 01-01-0001 |

| | |
|---|---|
| **Insulation Class** | F |
| **Inverter Code** | Not Inverter |
| **IP Rating** | NONE |
| **KVA Code** | K |
| **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** | 3420M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 10.88 IN |
| **Power Factor** | 69 |
| **Product Family** | General Purpose |
| **Pulley End Bearing Type** | Ball |
| **Pulley Face Code** | Standard |
| **Pulley Shaft Indicator** | Standard |
| **Rodent Screen** | None |
| **Service Factor** | 1.25 |
| **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** | 1725 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**

| | NP1256L | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | NM3538 | | | | | | | |
| **SPEC.** | 34A76-97G1 | | | | | | | |
| **HP** | .5 | | | | | | | |
| **VOLTS** | 230/460 | | | | | | | |
| **AMP** | 1.8/.9 | | | | | | | |
| **RPM** | 1725 | | | | | | | |
| **FRAME** | 56 | **HZ** | 60 | | | **PH** | 3 | |
| **SER.F.** | 1.25 | **CODE** | K | **DES** | B | **CLASS** | F | |
| **NEMA-NOM-EFF** | 75.5 | **PF** | 69 | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | |
| **CC** | | | | | | | | |
| **DE** | 6203 | **ODE** | 6203 | | | | | |
| **ENCL** | TENV | **SN** | | | | | | |
| | SFA 2/1 | | | | | | | |

**Parts List**

| Part number | Description | Quantity |
|---|---|---|
| SA009933 | SA 34A76-97G1 | 1.000 ea |
| RA006378 | RA 34A76-97G1 | 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 |
| 34EP3100A03SP | FR ENDPLATE, MACH | 1.000 ea |
| HW5100A03 | WAVY WASHER (W1543-017) | 1.000 ea |
| 34EP3102A02SP | FR/PU ENDPLATE, MACH | 1.000 ea |
| XY1032A02 | 10-32 HEX NUT DIRECTIONAL SERRATION | 4.000 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 |
| HA7000A04 | KEY RETAINER 0.625 DIA SHAFTS | 1.000 ea |
| MG1050G01 | CELEROL MEDIUM CHARCOAL METALLIC GRAY | 0.014 ga |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 2.000 ea |
| HA3100A44 | THRUBOLT 10-32 X 8.000 | 4.000 ea |
| MN416A01 | TAG-INSTAL-MAINT no wire (2500 bx)11/25 | 1.000 ea |
| LC0005E01 | CONN.DIA./WARNING LABEL (LC0005/LB1119N) | 1.000 ea |
| NP1256L | ALUM UL CC INDUSTRIAL MOTOR A60 | 1.000 ea |
| 34PA1002 | PKG GRP, PRINT PK1001A02 | 1.000 ea |

**Accessories**

| Part number | Description | Multiplier |
|---|---|---|
| 34-171 | C FACE KIT | A8 |

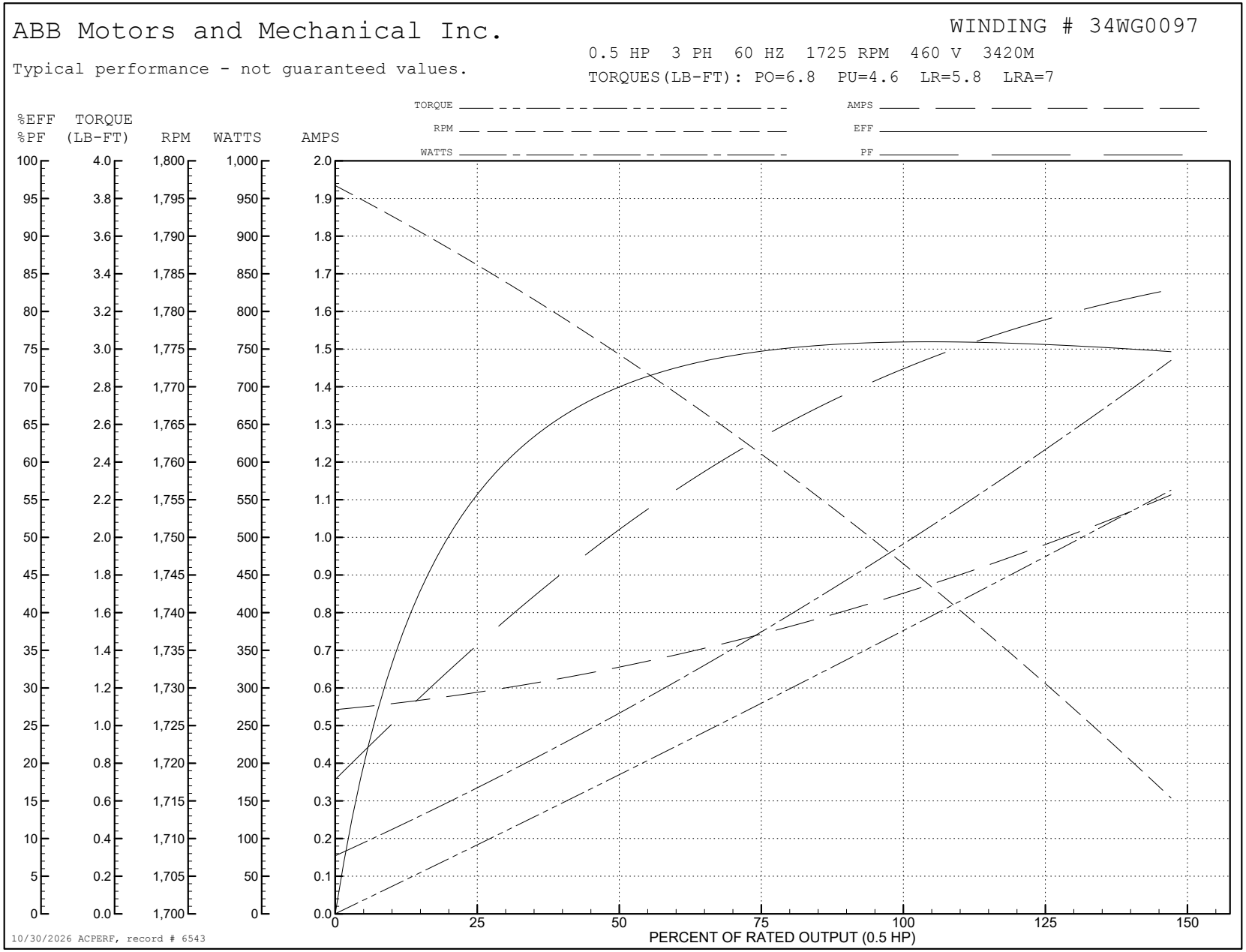
**AC Induction Motor Performance Data**
Record # 6543
Typical performance - not guaranteed values

| **Winding:** 34WG0097-R003 | **Type:** 3420M | **Enclosure:** TENV |
|---|---|---|

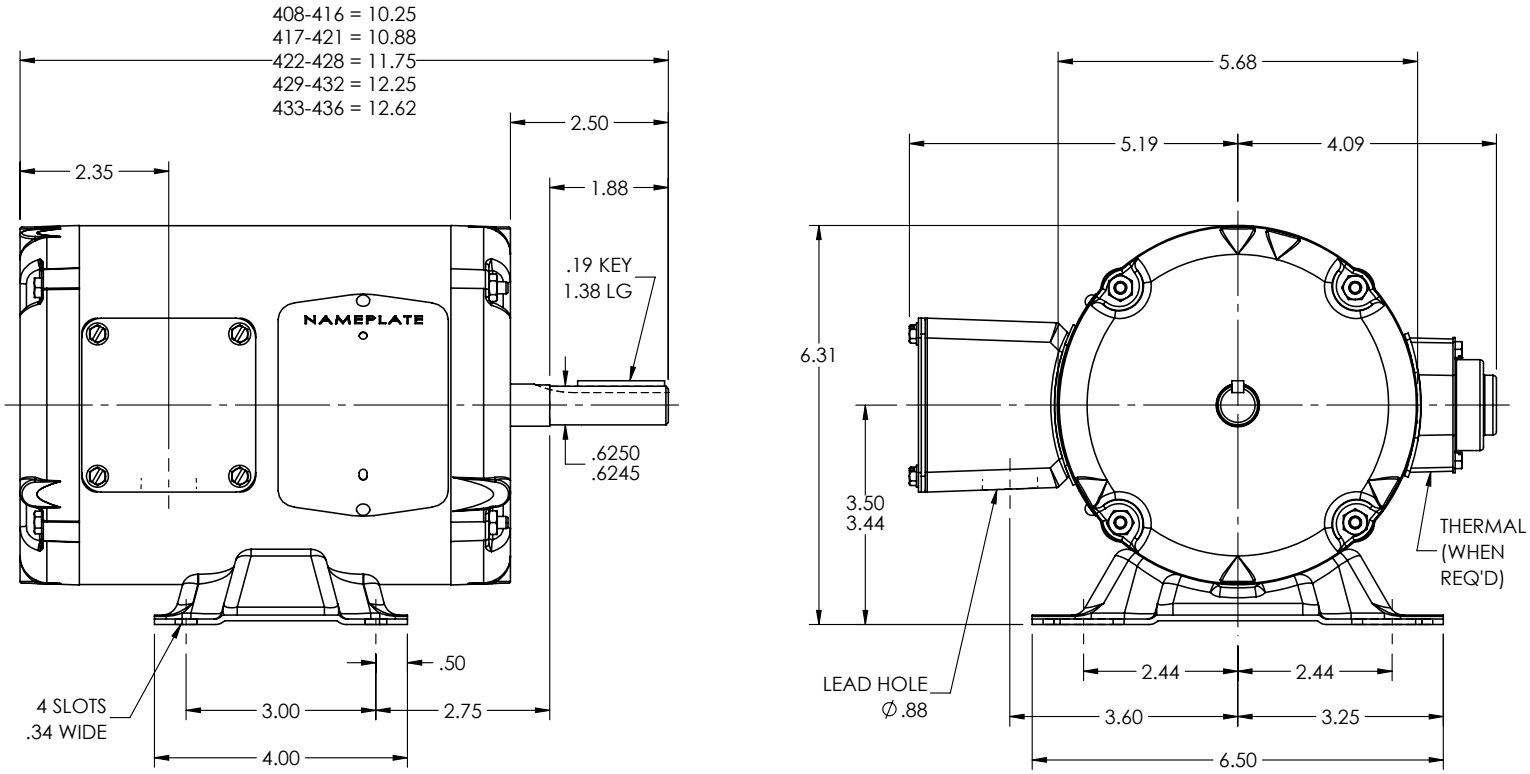
| **Nameplate Data** | | | **460 V, 60 Hz: High Voltage Connection** | |
|---|---|---|---|---|
| **Rated Output (HP)** | | .5 | **Full Load Torque** | 1.5 LB-FT |
| **Volts** | | 230/460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | 1.8/.9 | **Breakdown Torque** | 6.8 LB-FT |
| **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** | K | **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. @ 25ºC** | 27.56 Ω |
| **Rating - Duty** | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 57°C |
| **S.F. Amps** | | 2/1 | **Temp. Rise @ S.F. Load** | 80°C |

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

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 38 | 53 | 65 | 71 | 75 | 81 | 75 |
| **Efficiency** | 55 | 69 | 74 | 78 | 75.5 | 74.4 | 75.5 |
| **Speed** | 1787 | 1774 | 1760 | 1749 | 1728 | 1717 | 1728 |
| **Line amperes** | 0.6 | 0.65 | 0.74 | 0.84 | 1 | 1.1 | 1 |


ABB Motors and Mechanical Inc.
WINDING # 34WG0097
0.5 HP 3 PH 60 HZ 1725 RPM 460 V 3420M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=6.8 PU=4.6 LR=5.8 LRA=7
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (0.5 HP)
10/30/2026 ACPERF, record # 6543

34LYA076




34LYA076

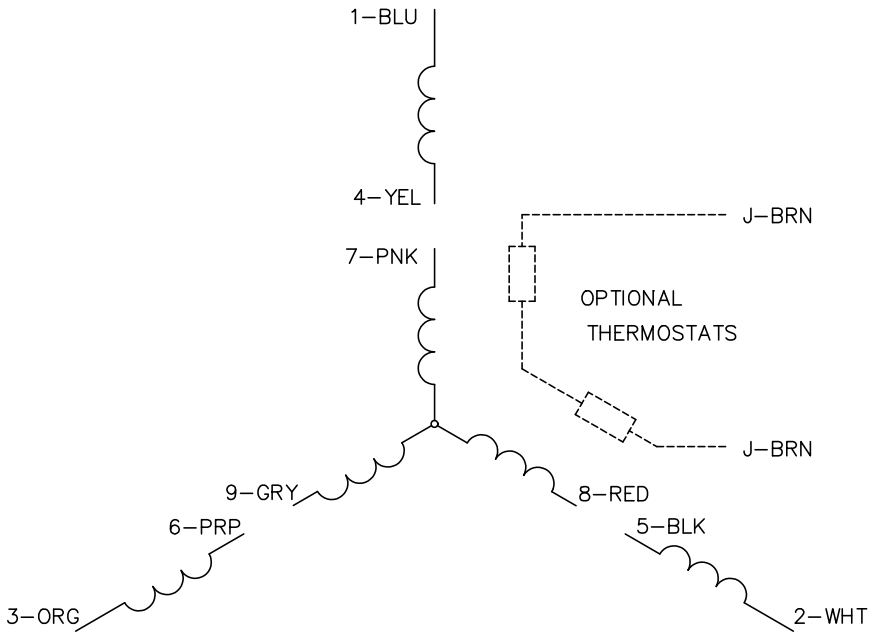
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

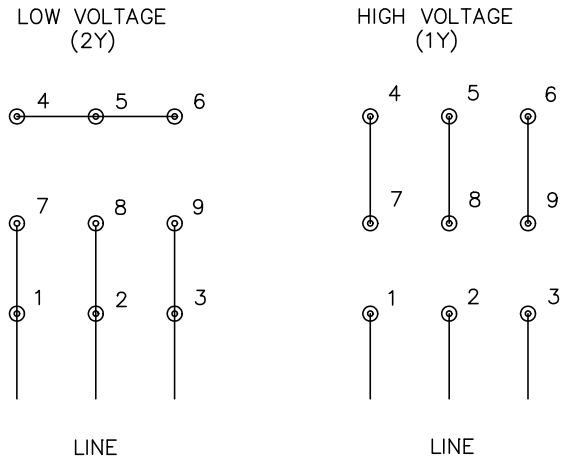
| | | | |
|---|---|---|---|
| REV. DESC: ADDED 433-436 STACK LENGTHS | | | |
| REV: J | VERSION: 07 | REVISED: 02:07:05 12/16/2024 | TDR: 000001246608 |
| 34LYA076 | MODEL NO. 34LYA076 | | REF: - |
| | BY: ENJEFD0 | | |

BALDOR - RELIANCE®

STD HORZ MODEL 34M NEMA 56 TENV/TEAO

CD0005




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 | | | BALDOR ELECTRIC Co. |
| REV. LTR: E | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| CD0005 | | FILE: AAA00005140 | MDL: – |
| | | MTL: – | 3PH, DV, 9 LEADS |