ABB BALDOR RELIANCE

# Customer information packet

## VEM3554-5

1.5HP, 1770RPM, 3PH, 60HZ, 56C, 3524M, TEFC, F1
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | 56C |
| **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** | 1.500 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 1800 RPM @ 60 HZ |
| **Voltage @ Frequency** | 575.0 V @ 60 HZ |
| **Agency Approvals** | NEMA PREMIUM<br>CURUSEEV |
| **Ambient Temperature** | 40 °C |
| **Auxiliary Box** | NO AUXILLARY BOX |
| **Auxiliary Box Lead Termination** | None |
| **Base Indicator** | No Mounting |
| **Bearing Grease Type** | Polyrex EM (-20F +300F) |
| **Blower** | None |
| **Current @ Voltage** | 1.700 A @ 575.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 86.5 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Front Shaft Indicator** | None |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 1.7 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Ready |
| **IP Rating** | NONE |

## Part Detail

| | |
|---|---|
| **Revision** | C |
| **Type** | AC |
| **Mech. spec.** | 35A013 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 35WGG122 |
| **Layout** | 35LYA013 |
| **Eff. date** | 04-29-2024 |
| **CD Diagram** | CD0006 |
| **Poles** | 04 |
| **Leads** | 3#18 |
| **Proprietary** | False |
| **Created date** | 03-11-2022 |

| | |
|---|---|
| **KVA Code** | M |
| **Lifting Lugs** | No Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Motor Lead Quantity/Wire Size** | 3 @ 18 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3524M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 13.22 IN |
| **Power Factor** | 74 |
| **Product Family** | General Purpose |
| **Pulley End Bearing Type** | Ball |
| **Pulley Face Code** | C-Face |
| **Pulley Shaft Indicator** | Standard |
| **Rodent Screen** | None |
| **Service Factor** | 1.15 |
| **Shaft Diameter** | 0.625 IN |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | No Slinger |
| **Speed** | 1770 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**

| NP3441L | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | VEM3554-5 | | | | | | | | | | |
| **SPEC.** | 35A013G122G1 | | | | | | | | | | |
| **HP** | 1.5 | | | | | | | | | | |
| **VOLTS** | 575 | | | | | | | | | | |
| **AMP** | 1.7 | | | | | | | | | | |
| **RPM** | 1770 | | | | | | | | | | |
| **FRAME** | 56C | | **HZ** | 60 | | | **PH** | 3 | | | |
| **SER.F.** | 1.15 | **CODE** | M | **DES** | B | **CL** | F | | | | |
| **NEMA-NOM-EFF** | 86.5 | **PF** | 74 | | | | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | | | | |
| **CC** | 010A | | | | | | | | | | |
| **DE** | 6205 | | **ODE** | 6203 | | | | | | | |
| **ENCL** | TEFC | **SN** | | | | | | | | | |
| **VPWM INVERTER READY** | | | | | | | | | | | |
| **CT6-60H(10:1)VT3-60H(20:1** | | | | | | | | | | | |
| | SFA 1.9 | | | | | | | | | | |

**AC Induction Motor Performance Data**
Record # 87553
Typical performance - not guaranteed values

| **Winding:** 35WGG122-R001 | **Type:** 3524M | **Enclosure:** TEFC |
|---|---|---|

| **Nameplate Data** | | | | **575 V, 60 Hz: High Voltage Connection** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 1.5 | **Full Load Torque** | 4.46 LB-FT |
| **Volts** | | | 575 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 1.7 | **Breakdown Torque** | 17.4 LB-FT |
| **R.P.M.** | | | 1770 | **Pull-up Torque** | 9.2 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 11.3 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | L | **Starting Current** | 14.8 A |
| **Service Factor (S.F.)** | | | 1.15 | **No-load Current** | 1 A |
| **NEMA Nom. Eff.** | 86.5 | **Power Factor** | 77 | **Line-line Res. @ 25ºC** | 18.8 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 41°C |
| **S.F. Amps** | | | 1.9 | **Temp. Rise @ S.F. Load** | 49°C |
| | | | | **Locked-rotor Power Factor** | 58.3 |
| | | | | **Rotor inertia** | 0.173 lb-ft² |

**Load Characteristics 575 V, 60 Hz, 1.5 HP**

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 36 | 56 | 69 | 77 | 82 | 85 | 81 |
| **Efficiency** | 76.7 | 84.6 | 86.5 | 86.7 | 85.9 | 84.7 | 86.1 |
| **Speed** | 1792 | 1786 | 1779 | 1770 | 1762 | 1753 | 1762 |
| **Line amperes** | 1.06 | 1.2 | 1.42 | 1.7 | 2.01 | 2.36 | 1.85 |

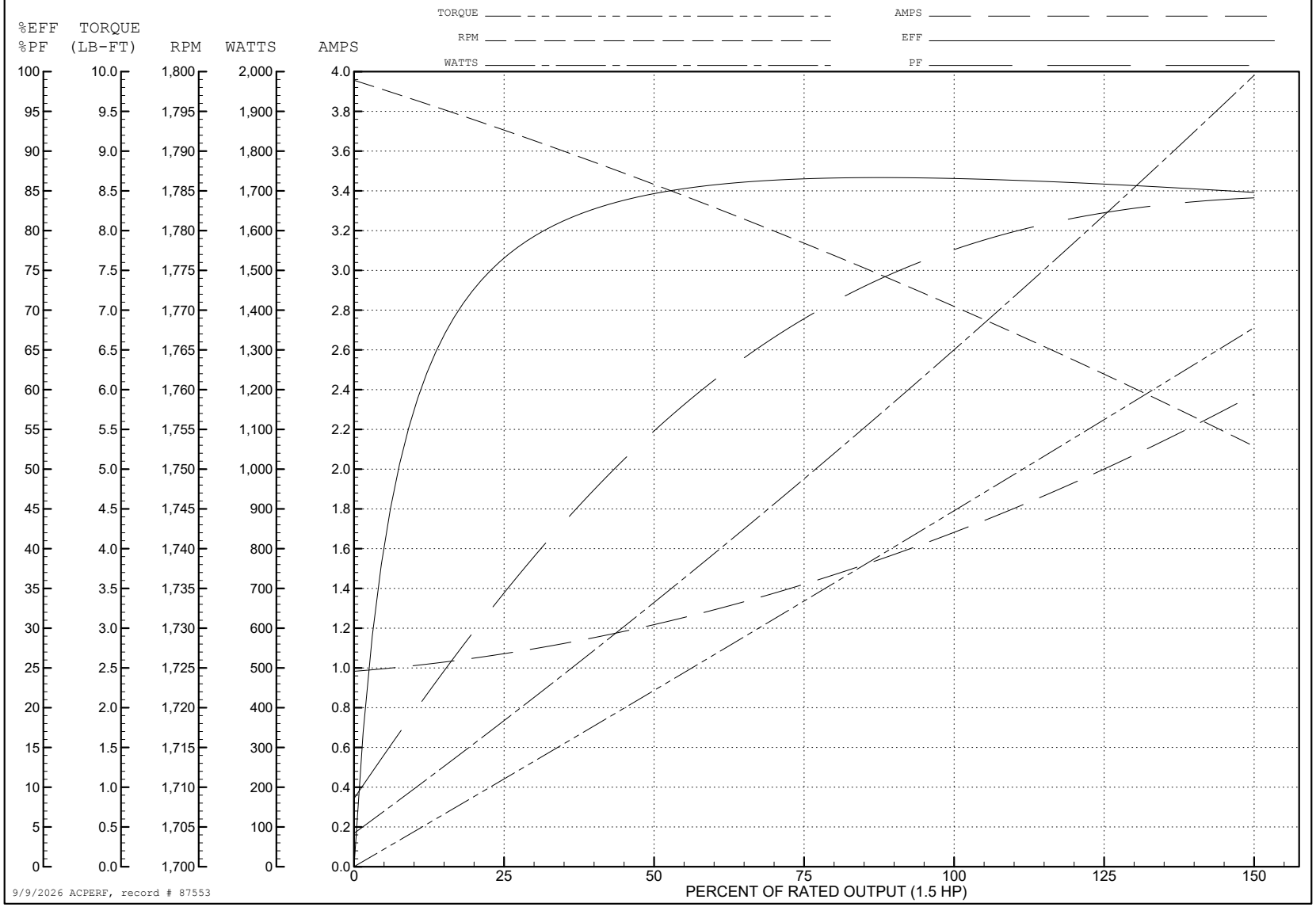
ABB Motors and Mechanical Inc.

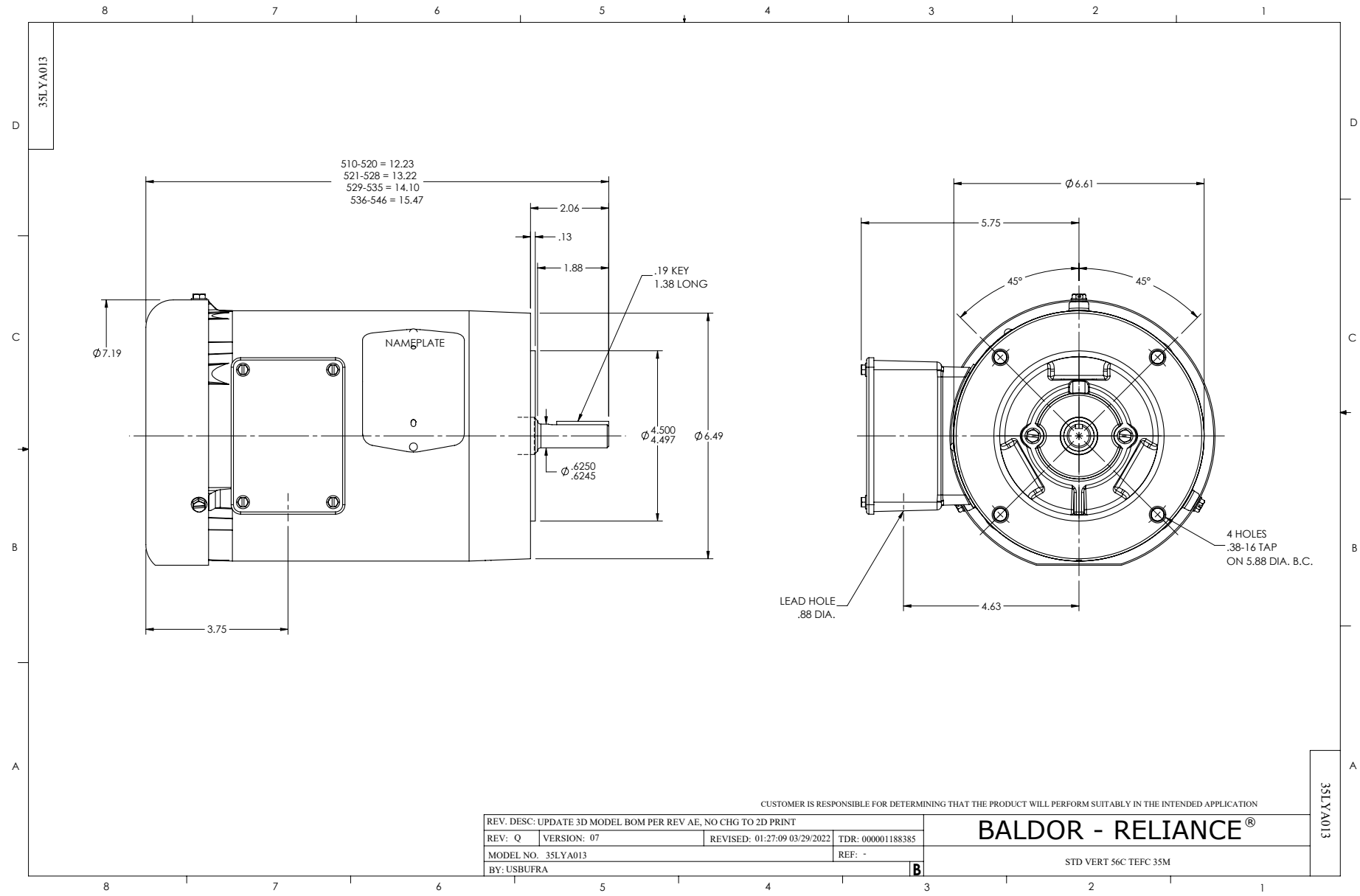
WINDING # 35WGG122

1.5 HP 3 PH 60 HZ 1770 RPM 575 V 3524M

Typical performance - not guaranteed values.

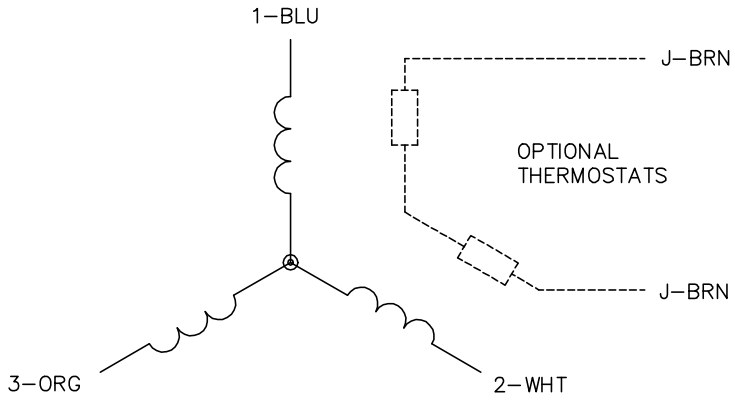
TORQUES(LB-FT): PO=17.4 PU=9.2 LR=11.3 LRA=14.8

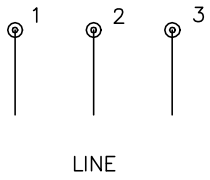



35LYA013
510-520 = 12.23
521-528 = 13.22
529-535 = 14.10
536-546 = 15.47
2.06
.13
1.88
.19 KEY
1.38 LONG
NAMEPLATE
Ø7.19
Ø4.500
4.497
Ø6.49
Ø .6250
.6245
3.75
Ø6.61
5.75
45°
45°
4 HOLES
.38-16 TAP
ON 5.88 DIA. B.C.
LEAD HOLE
.88 DIA.
4.63
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE 3D MODEL BOM PER REV AE, NO CHG TO 2D PRINT
REV: Q
VERSION: 07
REVISED: 01:27:09 03/29/2022
TDR: 000001188385
MODEL NO. 35LYA013
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
STD VERT 56C TEFC 35M
35LYA013

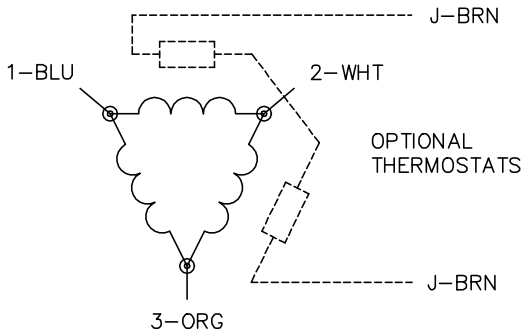
CD0006

TYPICAL WYE–CONNECTED MOTOR




TYPICAL DELTA–CONNECTED MOTOR




NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

| | | |
|---|---|---|
| REV. DESC: ADD CLASS CONN00000007 | | |
| REV. LTR: E | VERSION: 01 | TDR: 000001099922 |
| FILE: \AAA\00005\141 | REVISED: 10:24:49 02/19/2019 | BY: ENBRIR0 |
| MTL: – | | |

BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1