ABB BALDOR RELIANCE

# Customer information packet

## VESSWDM3554T-5

1.5HP, 1770RPM, 3PH, 60HZ, 145TC, 3524M, TEFC
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | 145TC |
| **Frame Material** | Stainless 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** | CSA EEV<br>NEMA PREMIUM<br>UR |
| **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 |

## Part Detail

| | |
|---|---|
| **Revision** | B |
| **Type** | AC |
| **Mech. spec.** | 35VV821 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 35WGG122 |
| **Layout** | 35LYVV821 |
| **Eff. date** | 12-08-2023 |
| **CD Diagram** | CD0006 |
| **Poles** | 04 |
| **Leads** | 3#18 |
| **Proprietary** | False |
| **Created date** | 02-23-2023 |

| | |
|---|---|
| **KVA Code** | L |
| **Lifting Lugs** | No Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Motor Finish** | UNPAINTED |
| **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** | 13.41 IN |
| **Power Factor** | 77 |
| **Product Family** | Wash Down All Stainless Steel |
| **Pulley End Bearing Type** | Ball |
| **Pulley Face Code** | C-Face |
| **Pulley Shaft Indicator** | Standard |
| **Rodent Screen** | None |
| **Service Factor** | 1.15 |
| **Shaft Diameter** | 0.875 IN |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **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**

| NP1953A05 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | VESSWDM3554T-5 | | | | | | | |
| **SPEC.** | 35VV821G122 | | | | | | | |
| **HP** | 1.5 | | | | | | | |
| **VOLTS** | 575 | | | | | | | |
| **AMP** | 1.7 | | | | | | | |
| **RPM** | 1770 | | | | | | | |
| **FRAME** | 145TC | **HZ** | 60 | | | **PH** | 3 | |
| **SER.F.** | 1.15 | **CODE** | M | **DES** | B | **CLASS** | F | |
| **NEMA-NOM-EFF** | 86.5 | **PF** | 74 | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | |
| **CC** | | **USABLE AT 208V** | | | | N/A | | |
| **DE** | 6205 | **ODE** | | | | | | |
| **ENCL** | TEFC | **SN** | | | | | | |
| | SFA 1.9 | | | | | | | |

**AC Induction Motor Performance Data**
Record # 31562
Typical performance - not guaranteed values

| **Winding:** 35WGM811-R001 | **Type:** 3528M | **Enclosure:** TEFC |
|---|---|---|

| **Nameplate Data** | | | | **575 V, 60 Hz: Single Voltage Motor** | |
|---|---|---|---|---|---|
| **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** | 18.7 LB-FT |
| **R.P.M.** | | | 1760 | **Pull-up Torque** | 12.3 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 13.3 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | L | **Starting Current** | 14.9 A |
| **Service Factor (S.F.)** | | | 1.15 | **No-load Current** | 1.02 A |
| **NEMA Nom. Eff.** | 87.5 | **Power Factor** | 74 | **Line-line Res. @ 25ºC** | 15.2 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 54°C |
| **S.F. Amps** | | | | **Temp. Rise @ S.F. Load** | 65°C |
| | | | | **Locked-rotor Power Factor** | 48 |
| | | | | **Rotor inertia** | 0.165 LB-FT2 |

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

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 33 | 52 | 66 | 74 | 80 | 83 | 78 |
| **Efficiency** | 77.6 | 85.9 | 87.6 | 87.7 | 87.3 | 86 | 87.5 |
| **Speed** | 1791 | 1781 | 1770 | 1759 | 1746 | 1733 | 1751 |
| **Line amperes** | 1.08 | 1.23 | 1.44 | 1.72 | 2.01 | 2.35 | 1.89 |

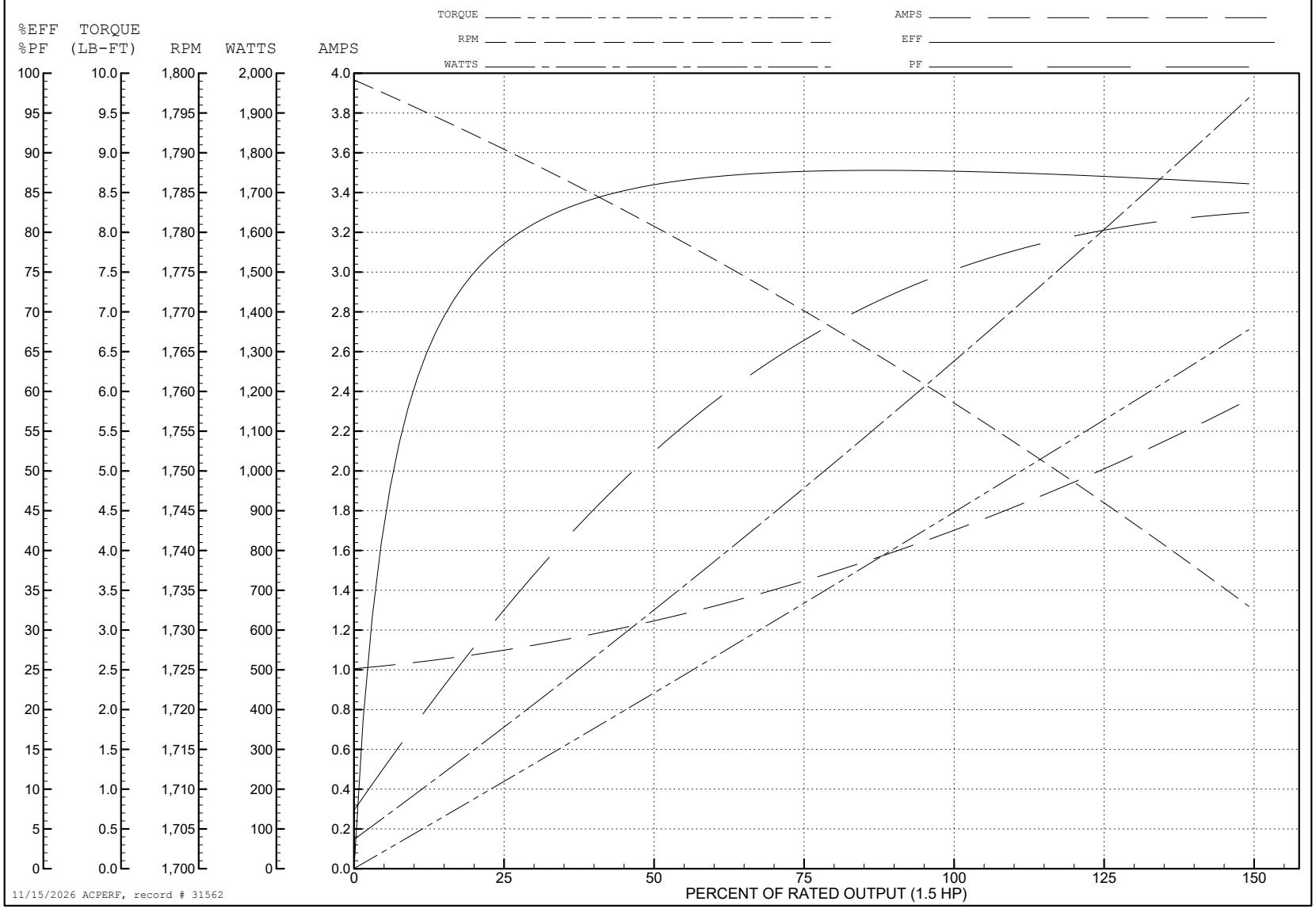
ABB Motors and Mechanical Inc.

WINDING # 35WGM811

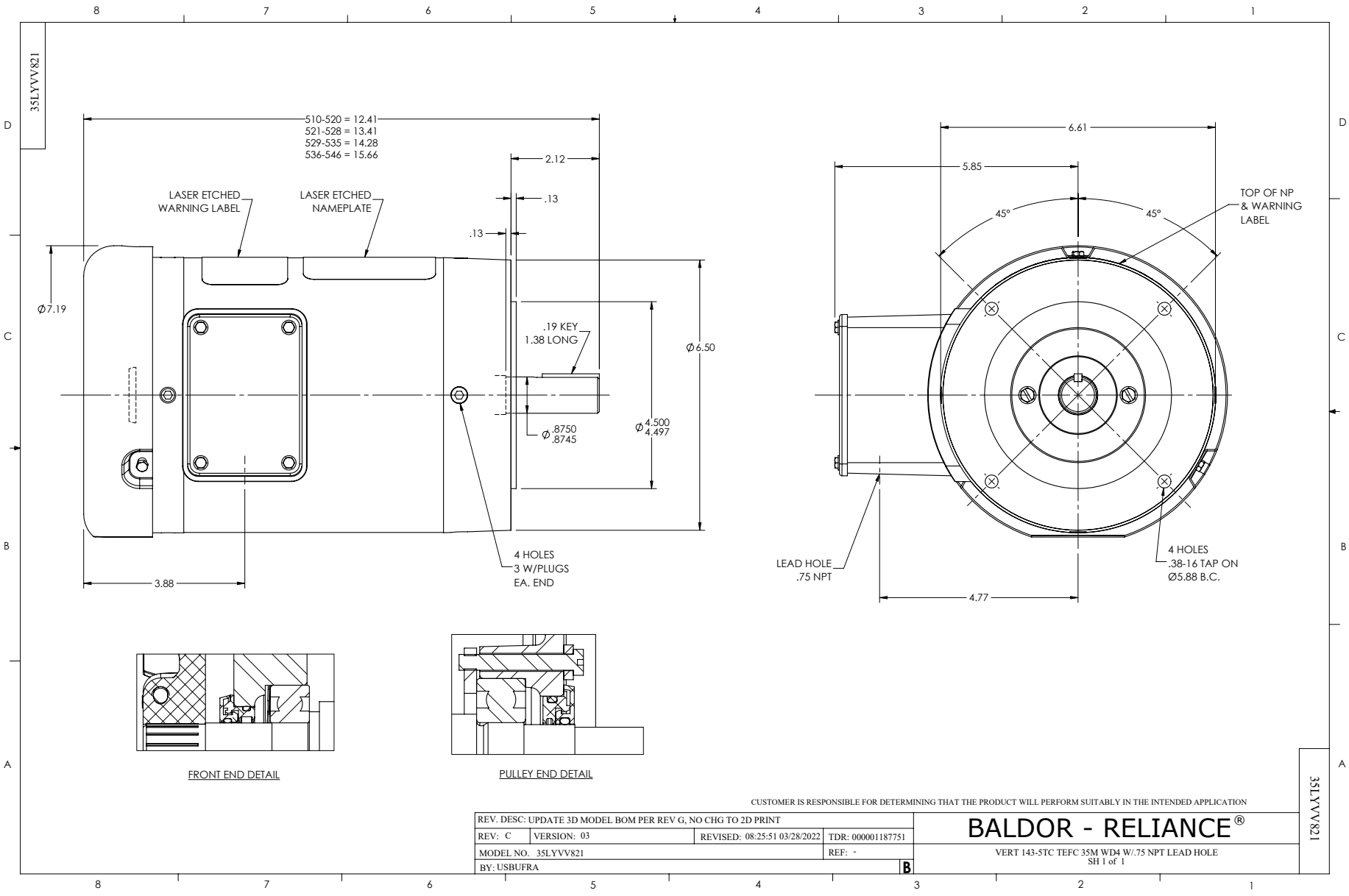
1.5 HP 3 PH 60 HZ 1760 RPM 575 V 3528M

Typical performance - not guaranteed values.

TORQUES(LB-FT): PO=18.7 PU=12.3 LR=13.3 LRA=14.9

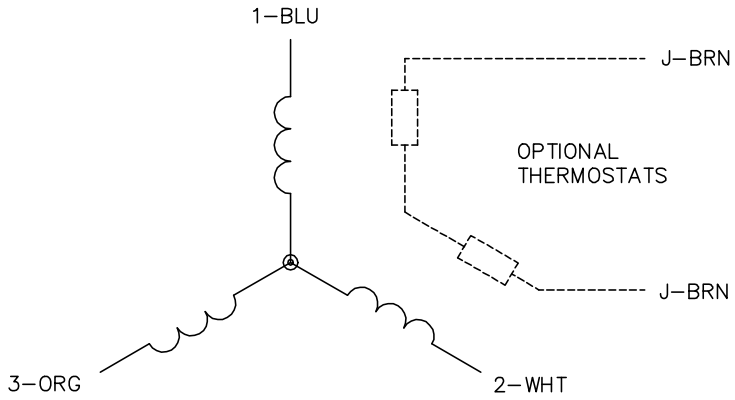


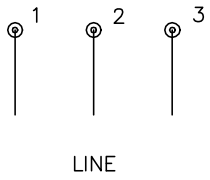

11/15/2026 ACPERF, record # 31562


35LYVV821
510-520 = 12.41
521-528 = 13.41
529-535 = 14.28
536-546 = 15.66
2.12
.13
.13
LASER ETCHED WARNING LABEL
LASER ETCHED NAMEPLATE
Ø7.19
.19 KEY
1.38 LONG
Ø6.50
Ø .8750 .8745
Ø 4.500 4.497
4 HOLES
3 W/PLUGS
EA. END
3.88
6.61
5.85
45°
45°
TOP OF NP & WARNING LABEL
LEAD HOLE .75 NPT
4 HOLES .38-16 TAP ON Ø5.88 B.C.
4.77
FRONT END DETAIL
PULLEY END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE 3D MODEL BOM PER REV G, NO CHG TO 2D PRINT
REV: C
VERSION: 03
REVISED: 08:25:51 03/28/2022
TDR: 000001187751
MODEL NO. 35LYVV821
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
VERT 143-5TC TEFC 35M WD4 W/.75 NPT LEAD HOLE
SH 1 of 1
35LYVV821

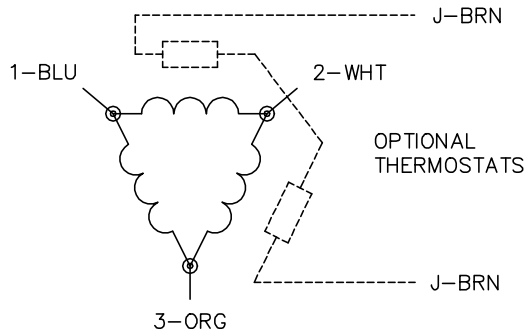
CD0006

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