ABB BALDOR RELIANCE

# Customer information packet

## FDEM3613T-5

5HP, 3450RPM, 3PH, 60HZ, 184T, 3630M, TEFC, F1
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | 184T |
| **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** | 5.000 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 3600 RPM @ 60 HZ |
| **Voltage @ Frequency** | 575.0 V @ 60 HZ |
| **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** | 4.700 A @ 575.0 V |
| **Design Code** | A |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 88.5 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Front Shaft Indicator** | None |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 4.7 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Ready |
| **KVA Code** | L |
| **Lifting Lugs** | No Lifting Lugs |
| **Locked Bearing Indicator** | No Locked Bearing |

## Part Detail

| | |
|---|---|
| **Revision** | C |
| **Type** | AC |
| **Mech. spec.** | 36Q173 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 36WGS505 |
| **Layout** | 36LYQ173 |
| **Eff. date** | 01-12-2026 |
| **CD Diagram** | CD0006 |
| **Poles** | 02 |
| **Leads** | 3#16 |
| **Proprietary** | False |
| **Created date** | 05-24-2018 |

| | |
|---|---|
| **Motor Lead Quantity/Wire Size** | 3 @ 16 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3630M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 2 |
| **Overall Length** | 16.55 IN |
| **Power Factor** | 91 |
| **Product Family** | General Purpose |
| **Pulley End Bearing Type** | Sealed Bearing |
| **Pulley Face Code** | Standard |
| **Pulley Shaft Indicator** | Standard |
| **Rodent Screen** | None |
| **RoHS Status** | ROHS COMPLIANT |
| **Service Factor** | 1.15 |
| **Shaft Diameter** | 1.125 IN |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | Shaft Slinger |
| **Speed** | 3450 rpm |
| **Speed Code** | Single Speed |
| **Starting Method** | Direct on line |
| **Thermal Device - Winding** | None |
| **Vibration Sensor Indicator** | No Vibration Sensor |
| **Winding Thermal 1** | None |
| **Winding Thermal 2** | None |

**Nameplate**

| NP3126L | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | FDEM3613T-5 | | | | | | | | |
| **SPEC.** | 36Q173S505G1 | | | | | | | | |
| **HP** | 5 | | | | | | | | |
| **VOLTS** | 575 | | | | | | | | |
| **AMP** | 4.7 | | | | | | | | |
| **RPM** | 3450 | | | | | | | | |
| **FRAME** | 184T | **HZ** | 60 | | | | **PH** | 3 | |
| **SER.F.** | 1.15 | **CODE** | L | **DES** | A | **CL** | F | | |
| **NEMA-NOM-EFF** | 88.5 | **PF** | 91 | | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | | |
| **CC** | 010A | | | | | | | | |
| **DE** | 6206 | **ODE** | 6205 | | | | | | |
| **ENCL** | TEFC | **SN** | | | | | | | |
| | - | | | | | | | | |

**AC Induction Motor Performance Data**
Record # 31109
Typical performance - not guaranteed values

| **Winding:** 36WGS505-R001 | **Type:** 3630M | **Enclosure:** TEFC |
|---|---|---|

| **Nameplate Data** | | | | **575 V, 60 Hz: Single Voltage Motor** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 5 | **Full Load Torque** | 7.64 LB-FT |
| **Volts** | | | 575 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 4.7 | **Breakdown Torque** | 33.7 LB-FT |
| **R.P.M.** | | | 3450 | **Pull-up Torque** | 23.5 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 27.5 LB-FT |
| **NEMA Design Code** | A | **KVA Code** | L | **Starting Current** | 45.7 A |
| **Service Factor (S.F.)** | | | 1.15 | **No-load Current** | 1.34 A |
| **NEMA Nom. Eff.** | 88.5 | **Power Factor** | 91 | **Line-line Res. @ 25ºC** | 3.57 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 72°C |
| **S.F. Amps** | | | | **Temp. Rise @ S.F. Load** | 88°C |
| | | | | **Locked-rotor Power Factor** | 45 |
| | | | | **Rotor inertia** | 0.134 LB-FT2 |

**Load Characteristics 575 V, 60 Hz, 5 HP**

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 63 | 81 | 88 | 91 | 93 | 93 | 92 |
| **Efficiency** | 83.2 | 88.4 | 89.1 | 88.5 | 87 | 85.7 | 87.5 |
| **Speed** | 3569 | 3537 | 3504 | 3466 | 3428 | 3385 | 3443 |
| **Line amperes** | 1.79 | 2.61 | 3.58 | 4.68 | 5.81 | 7.05 | 5.36 |

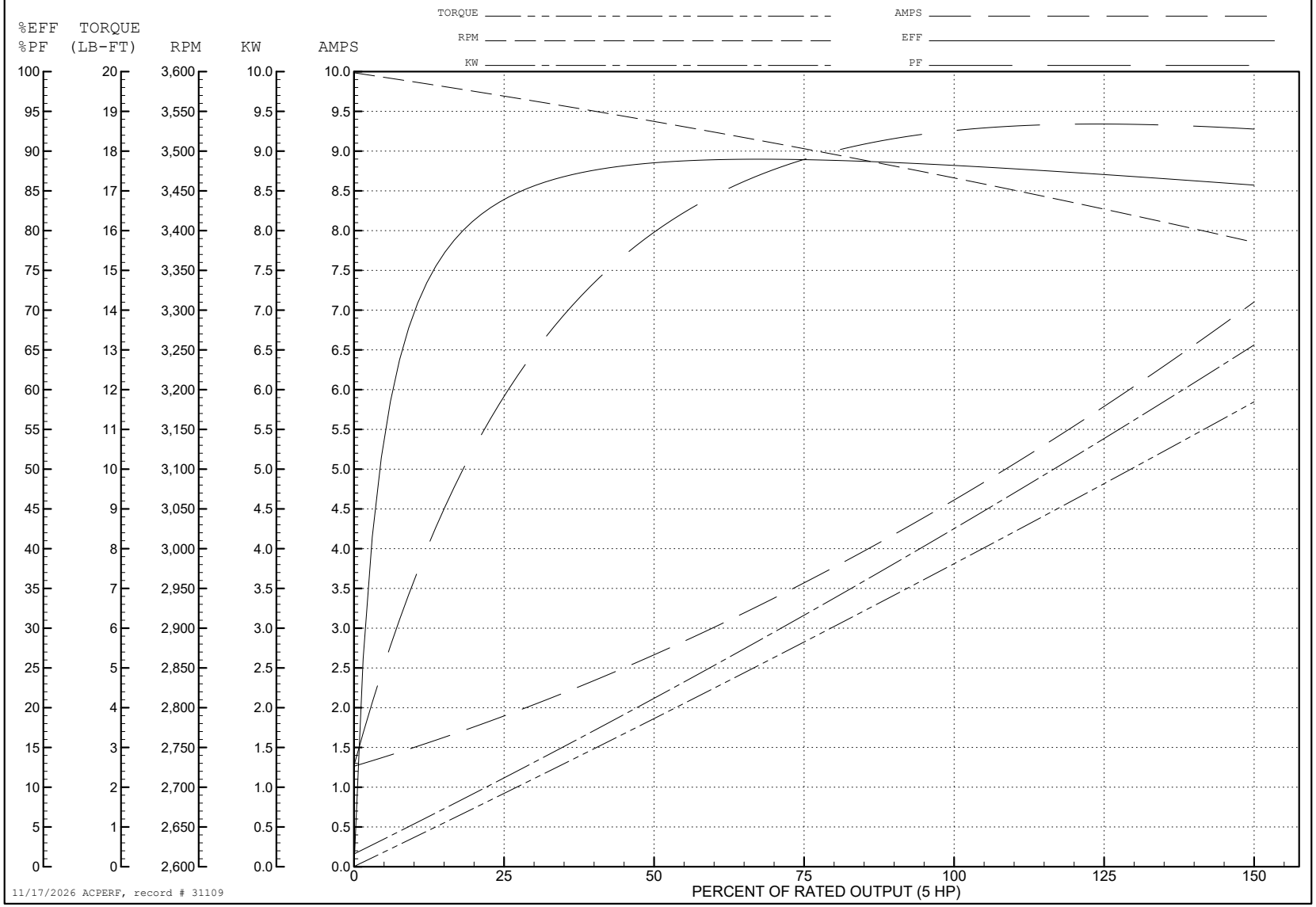
ABB Motors and Mechanical Inc.

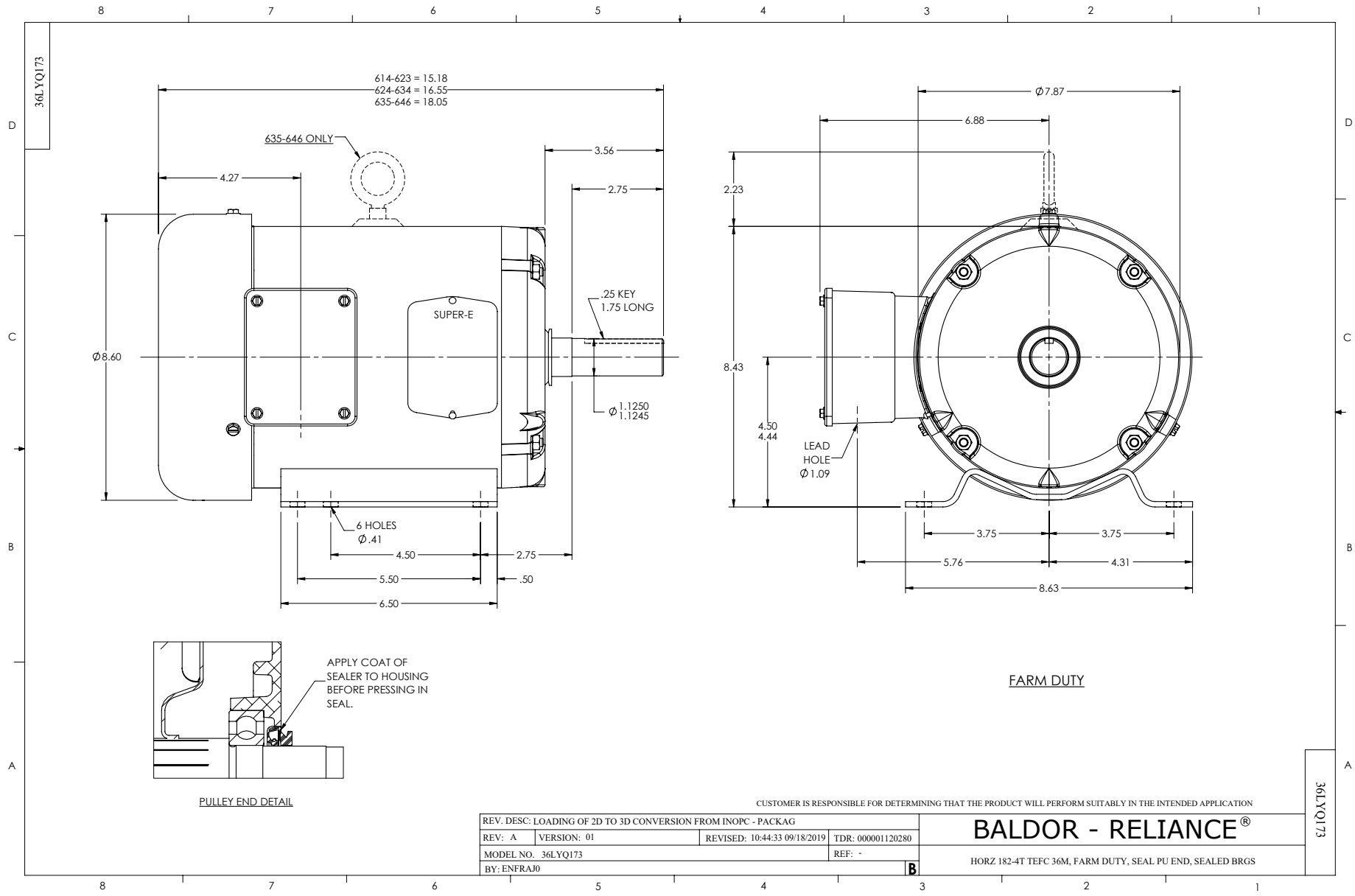
WINDING # 36WGS505

5 HP 3 PH 60 HZ 3450 RPM 575 V 3630M

Typical performance - not guaranteed values.

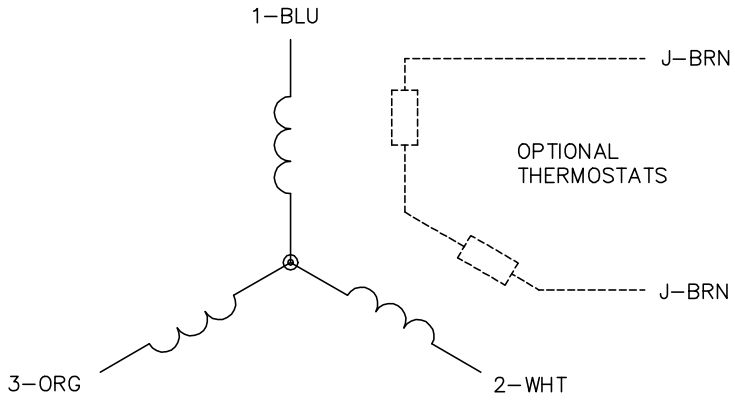
TORQUES(LB-FT): PO=33.7 PU=23.5 LR=27.5 LRA=45.7

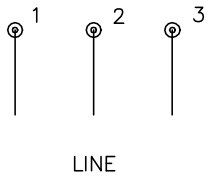



36LYQ173
614-623 = 15.18
624-634 = 16.55
635-646 = 18.05
635-646 ONLY
4.27
3.56
2.75
.25 KEY
1.75 LONG
SUPER-E
Ø8.60
Ø1.1250
Ø1.1245
6 HOLES
Ø.41
4.50
2.75
5.50
.50
6.50
Ø7.87
6.88
2.23
8.43
4.50
4.44
LEAD
HOLE
Ø1.09
3.75
3.75
5.76
4.31
8.63
APPLY COAT OF
SEALER TO HOUSING
BEFORE PRESSING IN
SEAL.
PULLEY END DETAIL
FARM DUTY
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOADING OF 2D TO 3D CONVERSION FROM INOPC - PACKAG
REV: A
VERSION: 01
REVISED: 10:44:33 09/18/2019
TDR: 000001120280
MODEL NO. 36LYQ173
REF: -
BY: ENFRAJ0
B
BALDOR - RELIANCE®
HORZ 182-4T TEFC 36M, FARM DUTY, SEAL PU END, SEALED BRGS
36LYQ173

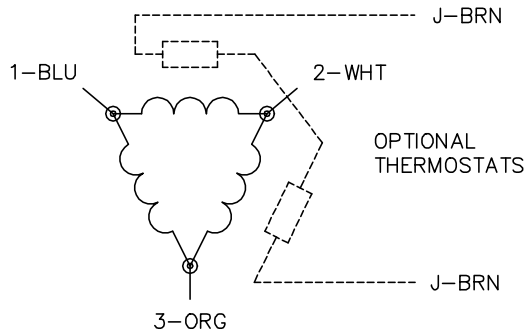
CD0006

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 | | | BALDOR - RELIANCE® |
| REV. LTR: E | VERSION: 01 | TDR: 000001099922 | |
| FILE: \AAA\00005\141 | REVISED: 10:24:49 02/19/2019 | BY: ENBRIR0 | 3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED |
| MTL: – | | | SH 1 of 1 |