

# ABB BALDOR RELIANCE III

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## Customer information packet

### VFSWDM3714T-E

10HP, 1770RPM, 3PH, 60HZ, 215TC, TEFC, F1, N

Class - None

Division - Not Applicable

**Specifications**

|                                |                                                                |
|--------------------------------|----------------------------------------------------------------|
| Enclosure                      | TEFC                                                           |
| Frame                          | 215TC                                                          |
| 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             | 10.000 HP @ 60 HZ                                              |
| Phase                          | 3                                                              |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                                               |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                             |
| Agency Approvals               | CSA<br>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              | 26.700 A @ 208.0 V<br>25.000 A @ 230.0 V<br>12.500 A @ 460.0 V |
| Design Code                    | B                                                              |
| Drip Cover                     | No Drip Cover                                                  |
| Duty Rating                    | CONT                                                           |
| Efficiency @ 100% Load         | 92.4 %                                                         |
| Electrically Isolated Bearing  | Not Electrically Isolated                                      |
| Feedback Device                | NO FEEDBACK                                                    |
| Front Shaft Indicator          | None                                                           |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | N          |
| Type         | AC         |
| Mech. spec.  | 37Q227     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 37WGS251   |
| Layout       | 37LYQ227   |
| Eff. date    | 09-22-2023 |
| CD Diagram   | CD0180     |
| Poles        | 04         |
| Leads        | 9#14       |
| Proprietary  | False      |
| Created date | 07-10-2017 |

|                                      |                        |
|--------------------------------------|------------------------|
| <b>Heater Indicator</b>              | No Heater              |
| <b>High Voltage Full Load Amps</b>   | 12.5 a                 |
| <b>Insulation Class</b>              | H                      |
| <b>Inverter Code</b>                 | Inverter Ready         |
| <b>KVA Code</b>                      | K                      |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs  |
| <b>Locked Bearing Indicator</b>      | Locked Bearing         |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 14 AWG             |
| <b>Motor Lead Termination</b>        | Flying Leads           |
| <b>Motor Standards</b>               | NEMA                   |
| <b>Motor Type</b>                    | 3756M                  |
| <b>Mounting Arrangement</b>          | F1                     |
| <b>Number of Poles</b>               | 4                      |
| <b>Overall Length</b>                | 22.12 IN               |
| <b>Power Factor</b>                  | 81                     |
| <b>Product Family</b>                | WD All SS Encapsulated |
| <b>Pulley End Bearing Type</b>       | Sealed Bearing         |
| <b>Pulley Face Code</b>              | C-Face                 |
| <b>Pulley Shaft Indicator</b>        | Standard               |
| <b>Rodent Screen</b>                 | None                   |
| <b>RoHS Status</b>                   | ROHS COMPLIANT         |
| <b>Service Factor</b>                | 1.15                   |
| <b>Shaft Diameter</b>                | 1.375 IN               |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding     |
| <b>Shaft Rotation</b>                | Reversible             |
| <b>Shaft Slinger Indicator</b>       | No Slinger             |
| <b>Speed</b>                         | 1770 rpm               |
| <b>Speed Code</b>                    | Single Speed           |
| <b>Starting Method</b>               | Direct on line         |
| <b>Thermal Device - Bearing</b>      | None                   |
| <b>Thermal Device - Winding</b>      | None                   |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor    |
| <b>Winding Thermal 1</b>             | None                   |
| <b>Winding Thermal 2</b>             | None                   |



**AC Induction Motor Performance Data**

Record # 62567

Typical performance - not guaranteed values

| Winding: 37WGS251-R016 |    |              |              | Type: 3756M                              |                       | Enclosure: TEFC |         |
|------------------------|----|--------------|--------------|------------------------------------------|-----------------------|-----------------|---------|
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                 |         |
| Rated Output (HP)      |    | 10           |              | Full Load Torque                         |                       | 29.9 LB-FT      |         |
| Volts                  |    | 230/460      |              | Start Configuration                      |                       | direct on line  |         |
| Full Load Amps         |    | 25/12.5      |              | Breakdown Torque                         |                       | 102 LB-FT       |         |
| R.P.M.                 |    | 1770         |              | Pull-up Torque                           |                       | 53.6 LB-FT      |         |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |                       | 74.2 LB-FT      |         |
| NEMA Design Code       |    | B            | KVA Code     | K                                        | Starting Current      |                 | 105 A   |
| Service Factor (S.F.)  |    | 1.15         |              | No-load Current                          |                       | 5.44 A          |         |
| NEMA Nom. Eff.         |    | 92.4         | Power Factor | 81                                       | Line-line Res. @ 25°C |                 | 0.799 Ω |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |                       | 76°C            |         |
| S.F. Amps              |    |              |              | Temp. Rise @ S.F. Load                   |                       | 93°C            |         |
|                        |    |              |              | Locked-rotor Power Factor                |                       | 31.7            |         |
|                        |    |              |              | Rotor inertia                            |                       | 1.38 LB-FT2     |         |

**Load Characteristics 460 V, 60 Hz, 10 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 43   | 65   | 76   | 81   | 83   | 84   | 82   |
| Efficiency      | 88   | 92.6 | 93   | 92.9 | 92.2 | 91.5 | 92.5 |
| Speed           | 1793 | 1786 | 1778 | 1770 | 1762 | 1752 | 1765 |
| Line amperes    | 6.18 | 7.79 | 10   | 12.5 | 15.3 | 18.3 | 14.2 |

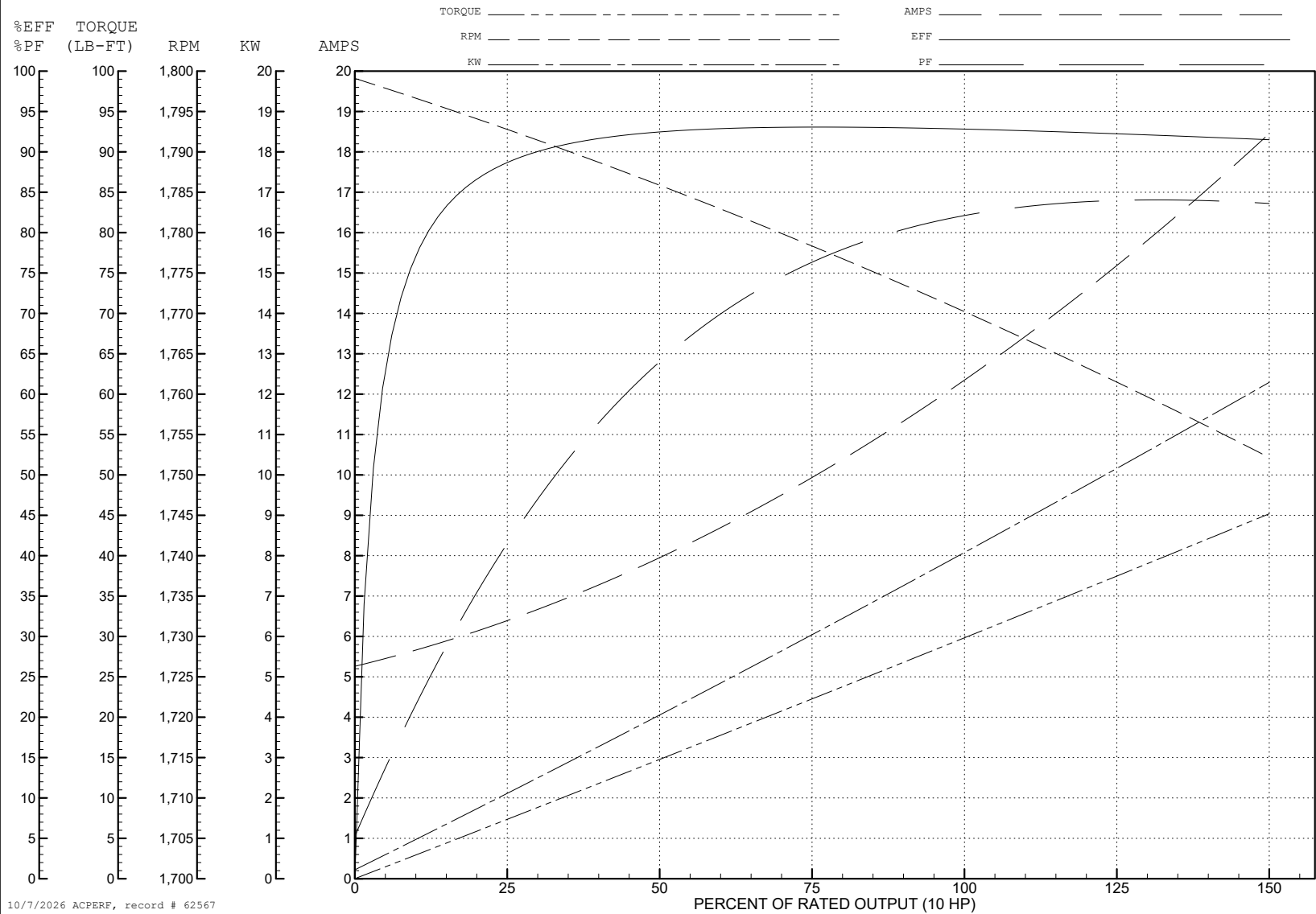
ABB Motors and Mechanical Inc.

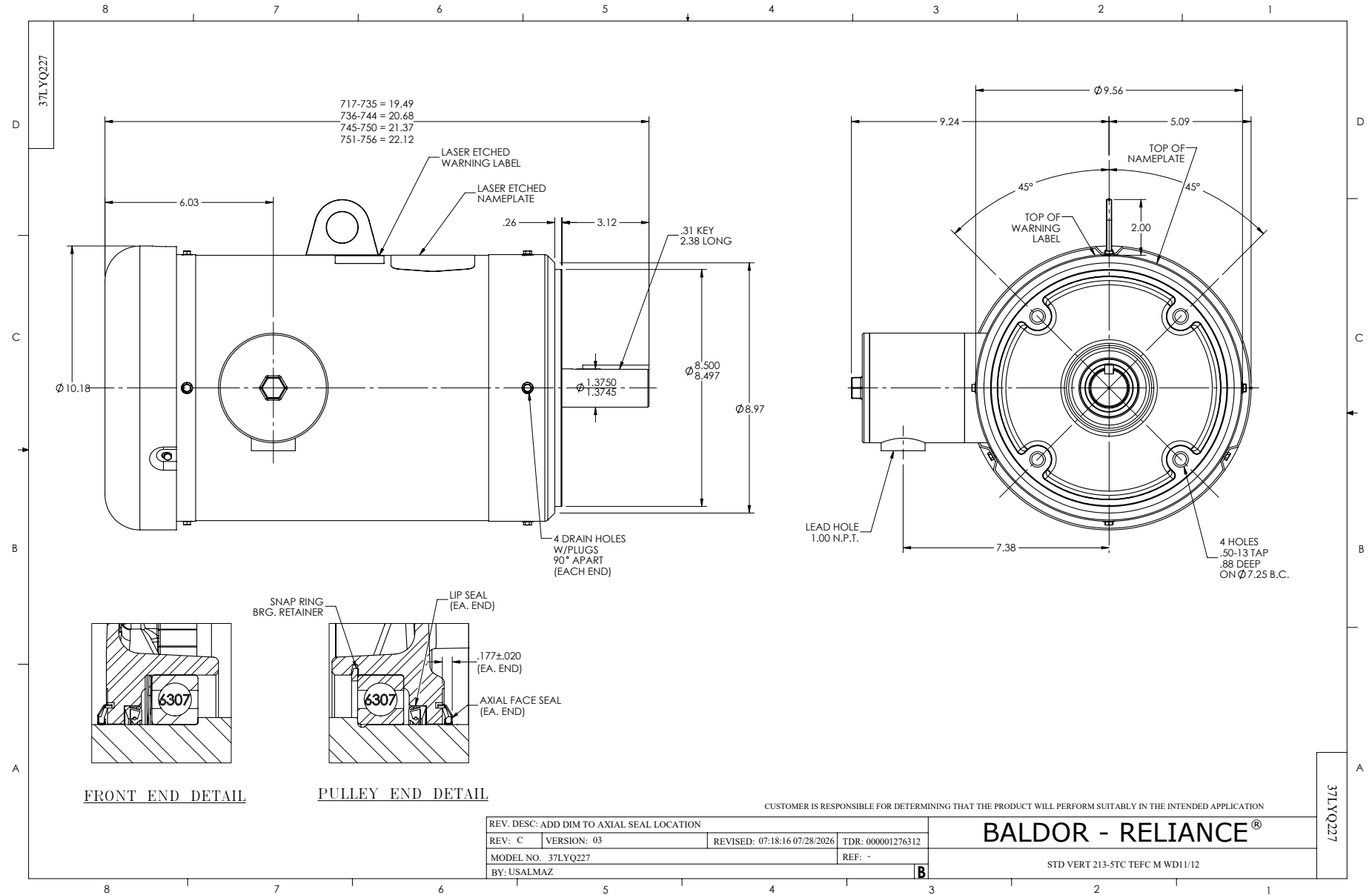
WINDING # 37WGS251

Typical performance - not guaranteed values.

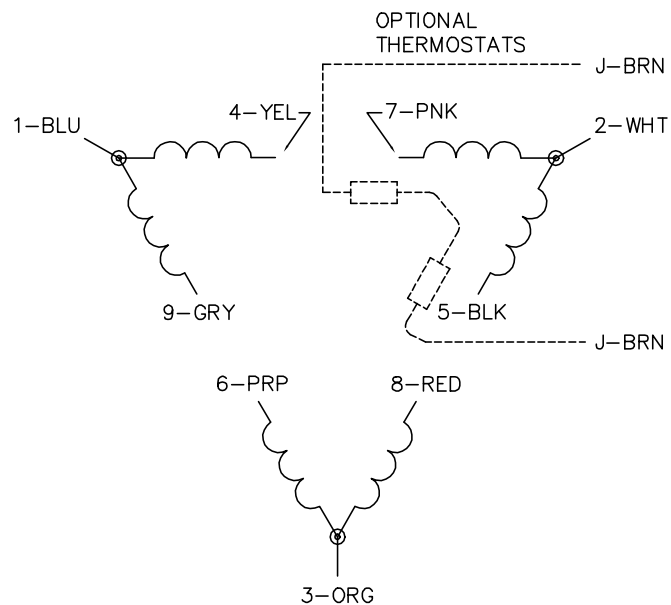
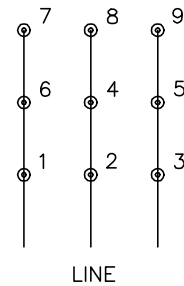
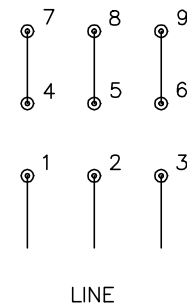
10 HP 3 PH 60 HZ 1770 RPM 460 V 3756M

TORQUES (LB-FT): PO=102 PU=53.6 LR=74.2 LRA=105





CD0180


LOW VOLTAGE  
(2D)

HIGH VOLTAGE  
(1D)

**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: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: -


**BALDOR - RELIANCE®**

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1

CD0180