ABB BALDOR RELIANCE

# Customer information packet

## EM3709T-58

7.5HP, 2900RPM, 3PH, 50HZ, 213T, 3728M, TEFC, F
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | 213T |
| **Frame Material** | Steel |
| **Frequency** | 50.00 Hz |
| **Haz Area Class and Group** | None |
| **Haz Area Division** | Not Applicable |
| **Motor Letter Type** | Three Phase |
| **Output @ Frequency** | 7.500 HP @ 50 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 3000 RPM @ 50 HZ |
| **Voltage @ Frequency** | 400.0 V @ 50 HZ |
| **Agency Approvals** | C UR US |
| | CE |
| | CURUS |
| | IE3 |
| | UKCA |
| | WEEE |
| **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** | 10.400 A @ 400.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 89.2 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Front Face Code** | Standard |
| **Front Shaft Indicator** | None |

## Part Detail

| | |
|---|---|
| **Revision** | K |
| **Type** | AC |
| **Mech. spec.** | 37A001 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 37WGR575 |
| **Layout** | 37LYA001 |
| **Eff. date** | 11-05-2025 |
| **CD Diagram** | CD0382 |
| **Poles** | 02 |
| **Leads** | 6#14 |
| **Proprietary** | False |
| **Created date** | 12-22-2015 |

| | |
|---|---|
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 10.4 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Ready |
| **KVA Code** | J |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Locked Bearing Indicator** | No Locked Bearing |
| **Motor Lead Exit** | Ko Box |
| **Motor Lead Quantity/Wire Size** | 6 @ 14 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3728M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 2 |
| **Overall Length** | 17.89 IN |
| **Power Factor** | 80 |
| **Product Family** | General Purpose |
| **Pulley End Bearing Type** | Ball |
| **Pulley Face Code** | Standard |
| **Pulley Shaft Indicator** | Standard |
| **Rodent Screen** | None |
| **RoHS Status** | ROHS COMPLIANT |
| **Service Factor** | 1.15 |
| **Shaft Diameter** | 1.375 IN |
| **Shaft Extension Location** | Pulley End |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | No Slinger |
| **Speed** | 2900 rpm |
| **Speed Code** | Single Speed |
| **Starting Method** | Wye Start - Delta Run |
| **Thermal Device - Bearing** | None |
| **Thermal Device - Winding** | None |
| **Vibration Sensor Indicator** | No Vibration Sensor |

| | |
|---|---|
| **Winding Thermal 1** | None |
| **Winding Thermal 2** | None |

**Nameplate**

| NP2716L | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CAT NO** | EM3709T-58 | | | | | | | | |
| **SPEC.** | 37A001R575G1 | | | | | | | | |
| **HP** | 7.5/5.5KW | | | | **PH** | 3 | | | |
| **VOLTS** | 400 | | | | | | | | |
| **AMP** | 10.4 | | | | | | | | |
| **R.P.M. (1/MIN)** | 2900 | | | | | | | | |
| **FRAME** | 213T | | **HZ** | 50 | | | **I.P.** | 44 | |
| **SER.F.** | 1.15 | **CODE** | J | **DES** | B | | **CL** | F | |
| **NOM.EFF.** | 89.2 | | | **% (100%)** | | | | | |
| **PF** | 80 | | | | | | | | |
| **RATING** | 40C AMB-S1 CONT | | | | **CC** | | | | |
| **DE BRG** | 6307 | | **ODE** | 6206 | | | | | |
| **ENCL** | TEFC | **SN** | | | | | | | |
| **BLANK** | IE3-91.5(75%)90.8(50%) | | | | | | | | |
| | IC411 55KG | | | | | | | | |

**AC Induction Motor Performance Data**
Record # 54639
Typical performance - not guaranteed values

| **Winding:** 37WGR575-R002 | **Type:** 3728M | **Enclosure:** TEFC |
|---|---|---|

| **Nameplate Data** | | | | **400 V, 50 Hz: Single Voltage Motor** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 7.5 | **Full Load Torque** | 13.1 LB-FT |
| **Volts** | | | 400 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 10.4 | **Breakdown Torque** | 44.7 LB-FT |
| **R.P.M.** | | | 2900 | **Pull-up Torque** | 25.6 LB-FT |
| **Hz** | 50 | **Phase** | 3 | **Locked-rotor Torque** | 27.1 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | J | **Starting Current** | 73.2 A |
| **Service Factor (S.F.)** | | | 1.15 | **No-load Current** | 4.61 A |
| **NEMA Nom. Eff.** | 89.2 | **Power Factor** | 8 | **Line-line Res. @ 25ºC** | 1.05 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 56°C |
| **S.F. Amps** | | | | **Temp. Rise @ S.F. Load** | 69°C |
| | | | | **Locked-rotor Power Factor** | 37.7 |
| | | | | **Rotor inertia** | 0.255 LB-FT2 |

**Load Characteristics 400 V, 50 Hz, 7.5 HP**

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 40 | 65 | 77 | 83 | 86 | 87 | 85 |
| **Efficiency** | 86.2 | 91.4 | 91.7 | 89.8 | 89.7 | 88.9 | 89.7 |
| **Speed** | 2980 | 2960 | 2938 | 2916 | 2890 | 2863 | 2900 |
| **Line amperes** | 5.08 | 6.33 | 8.22 | 10.4 | 12.8 | 15.4 | 11.8 |

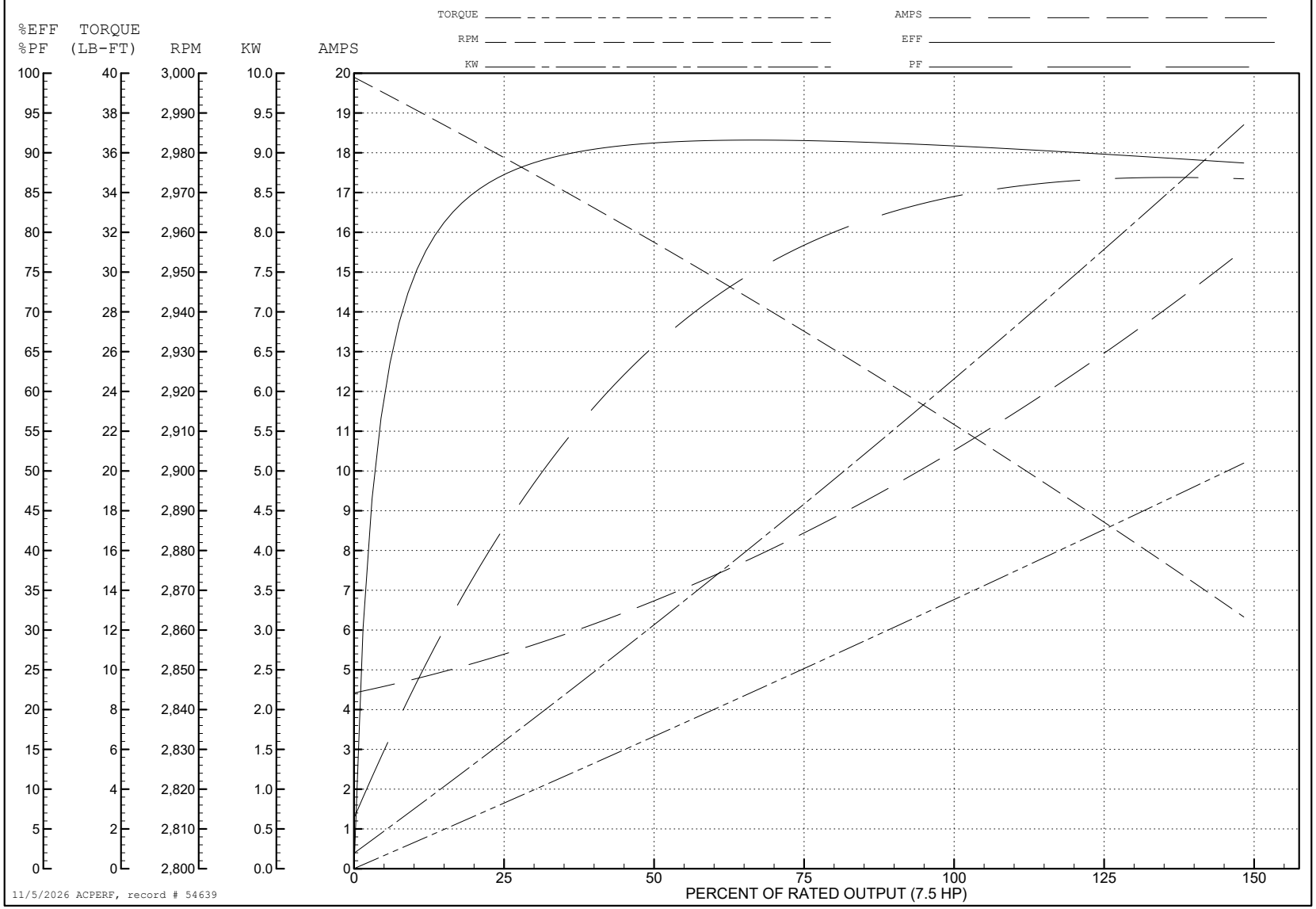
ABB Motors and Mechanical Inc.

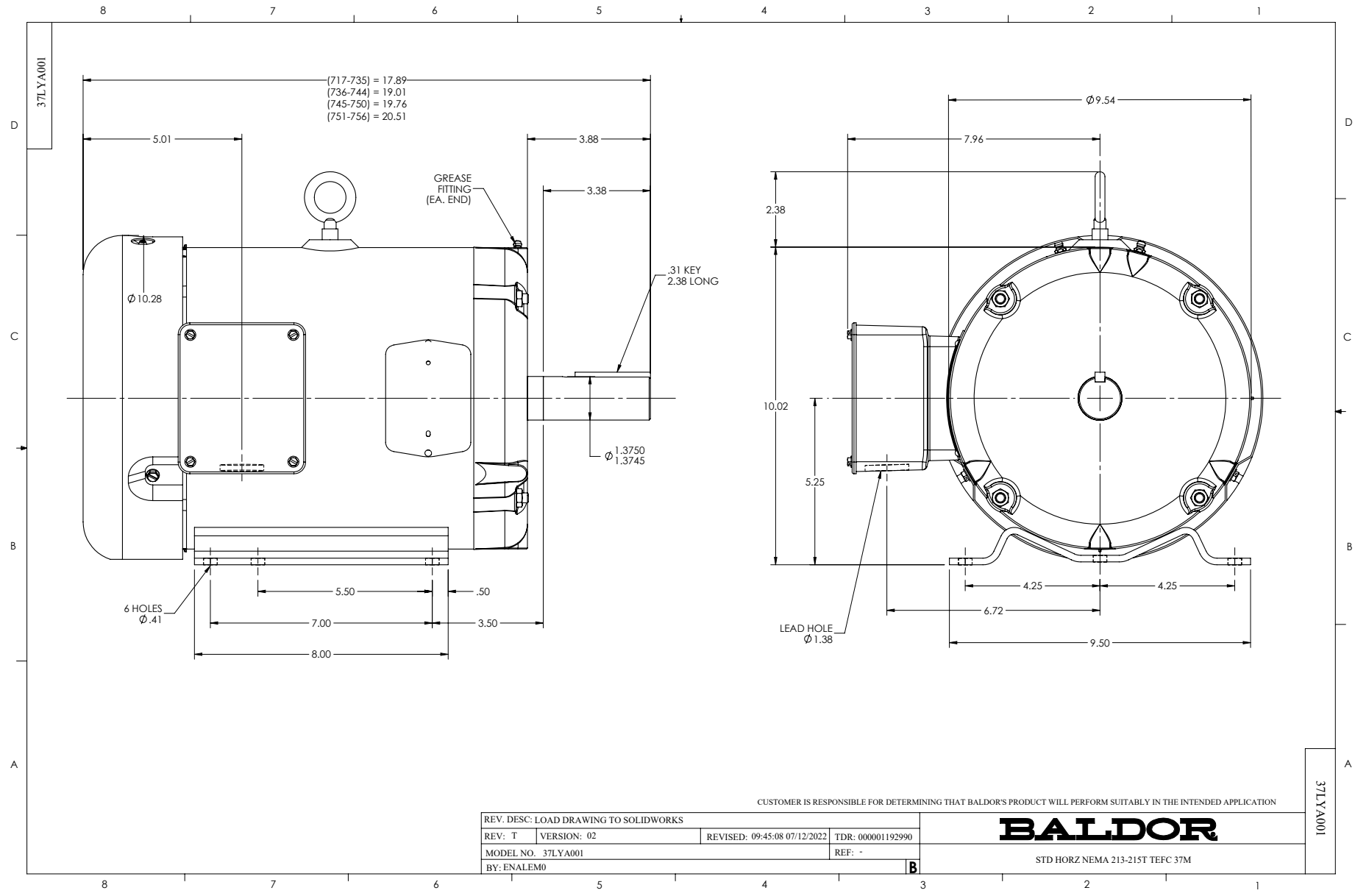
WINDING # 37WGR575

7.5 HP 3 PH 50 HZ 2900 RPM 400 V 3728M

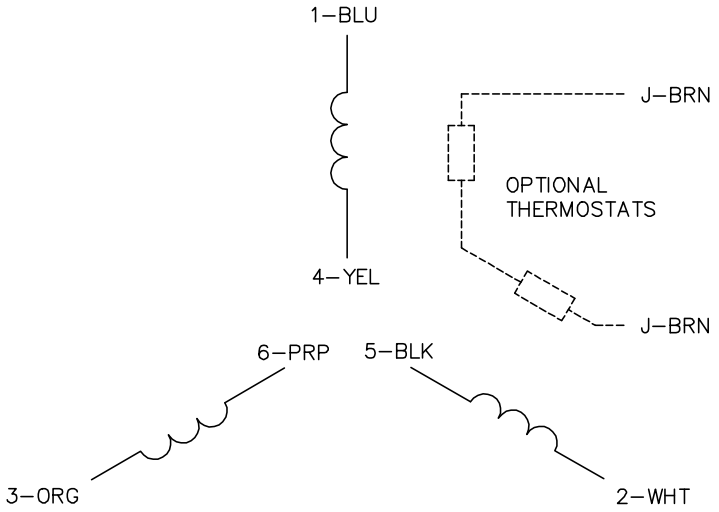
TORQUES(LB-FT): PO=44.7 PU=25.6 LR=27.1 LRA=73.2

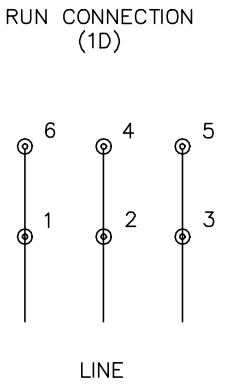
Typical performance - not guaranteed values.

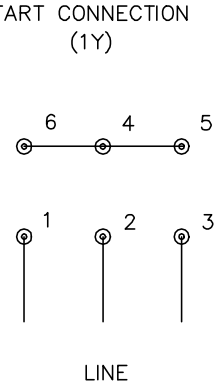



37LYA001
(717-735) = 17.89
(736-744) = 19.01
(745-750) = 19.76
(751-756) = 20.51
5.01
3.88
3.38
GREASE FITTING (EA. END)
.31 KEY 2.38 LONG
Ø10.28
Ø1.3750 1.3745
6 HOLES Ø.41
5.50
.50
7.00
3.50
8.00
Ø9.54
7.96
2.38
10.02
5.25
4.25
4.25
6.72
LEAD HOLE Ø1.38
9.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOAD DRAWING TO SOLIDWORKS
REV: T
VERSION: 02
REVISED: 09:45:08 07/12/2022
TDR: 000001192990
MODEL NO. 37LYA001
REF: -
BY: ENALEM0
B
BALDOR
STD HORZ NEMA 213-215T TEFC 37M
37LYA001

CD0382




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.
5. FOR ACROSS–THE–LINE STARTING, USE 'RUN' CONNECTION.

CD0382

| | | |
|---|---|---|
| REV. DESC: ADD CLASS CONN00000007 | | |
| REV. LTR: F | VERSION: 01 | TDR: 000001099922 |
| FILE: \AAA\00005\243 | REVISED: 09:05:32 02/19/2019 | BY: ENBRIR0 |
| MTL: – | | |

BALDOR - RELIANCE®

3PH, SV, 6 LEADS, Y START/D RUN

SH 1 of 1