

BALDOR® • RELIANCE 

Product Information Packet

EFM3709T

7.5HP,3520RPM,3PH,60HZ,213T,3728M,TEFC,F

| Part Detail | | | | | | | |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision: | F | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 37WGR224 | CD Diagram: | CD0005 | Mfg Plant: | |
| Mech. Spec: | 37A006 | Layout: | 37LYA006 | Poles: | 02 | Created Date: | 04-22-2013 |
| Base: | RG | Eff. Date: | 11-02-2015 | Leads: | 9#14 | | |

| Specs | | | |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number: | EFM3709T | Heater Indicator: | No Heater |
| Enclosure: | TEFC | Insulation Class: | F |
| Frame: | 213T | Inverter Code: | Inverter Ready |
| Frame Material: | Steel | KVA Code: | J |
| Output @ Frequency: | 7.500 HP @ 60 HZ | Lifting Lugs: | Standard Lifting Lugs |
| Synchronous Speed @ Frequency: | 3600 RPM @ 60 HZ | Locked Bearing Indicator: | No Locked Bearing |
| Voltage @ Frequency: | 460.0 V @ 60 HZ | Motor Lead Quantity/Wire Size: | 9 @ 14 AWG |
| | 230.0 V @ 60 HZ | Motor Lead Exit: | Ko Box |
| XP Class and Group: | None | Motor Lead Termination: | Flying Leads |
| XP Division: | Not Applicable | Motor Type: | 3728M |
| Agency Approvals: | UR | Mounting Arrangement: | F2 |
| | CSA EEV | Power Factor: | 84 |
| | CSA | Product Family: | General Purpose |
| Auxillary Box: | No Auxillary Box | Pulley End Bearing Type: | Ball |
| Auxillary Box Lead Termination: | None | Pulley Face Code: | Standard |
| Base Indicator: | Rigid | Pulley Shaft Indicator: | Standard |
| Bearing Grease Type: | Polyrex EM (-20F +300F) | Rodent Screen: | None |
| Blower: | None | Shaft Extension Location: | Pulley End |

| | | | |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| Current @ Voltage: | 18.000 A @ 230.0 V | Shaft Ground Indicator: | No Shaft Grounding |
| | 19.400 A @ 208.0 V | Shaft Rotation: | Reversible |
| | 9.000 A @ 460.0 V | Shaft Slinger Indicator: | No Slinger |
| Design Code: | A | Speed Code: | Single Speed |
| Drip Cover: | No Drip Cover | Motor Standards: | NEMA |
| Duty Rating: | CONT | Starting Method: | Direct on line |
| Electrically Isolated Bearing: | Not Electrically Isolated | Thermal Device - Bearing: | NONE (OLD) |
| Feedback Device: | NO FEEDBACK | Thermal Device - Winding: | None |
| Front Face Code: | Standard | Vibration Sensor Indicator: | No Vibration Sensor |
| Front Shaft Indicator: | None | Winding Thermal 1: | None |
| | | Winding Thermal 2: | None |

| | | | | | | | | | | |
|--|--------------|--|-------------|----|-----------------------|------|--|-----------|-----------|---|
| Nameplate NP3441L | | | | | | | | | | |
| CAT.NO. | EFM3709T | | | | | | | | | |
| SPEC. | 37A006R224G1 | | | | | | | | | |
| HP | 7.5 | | | | | | | | | |
| VOLTS | 230/460 | | | | | | | | | |
| AMP | 18/9 | | | | | | | | | |
| RPM | 3520 | | | | | | | | | |
| FRAME | 213T | | | | HZ | 60 | | | PH | 3 |
| SER.F. | 1.15 | | CODE | J | DES | A | | CL | F | |
| NEMA-NOM-EFF | 89.5 | | PF | 84 | | | | | | |
| RATING | 40C AMB-CONT | | | | | | | | | |
| CC | 010A | | | | USABLE AT 208V | | | 19.4 | | |
| DE | 6307 | | | | ODE | 6206 | | | | |
| ENCL | TEFC | | SN | | | | | | | |
| VPWM INVERTER READY CT6-60H(10:1)VT3-60H(20:1) | | | | | | | | | | |
| | | | | | | | | | | |

| Parts List | | |
|-------------|--|----------|
| Part Number | Description | Quantity |
| SA262053 | SA 37A006R224G1 | 1.000 EA |
| RA248786 | RA 37A006R224G1 | 1.000 EA |
| 36FN3000B02 | EXFN, PLASTIC, 6.00 OD, 1.175 ID | 1.000 EA |
| HW3200A01 | 3/8-16X3/4 I-BLT WELDED F/S | 1.000 EA |
| 37CB3006 | 37 CB CASTING W/1.38 LEAD HOLE @ 6:00 | 1.000 EA |
| 37GS1000SP | GASKET, CONDUIT BOX STD., .06 THICK LEXI | 1.000 EA |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 2.000 EA |
| 11XW1032G06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 EA |
| 37EP3101A01 | FR ENDPLATE, FOR ROUTING PURPOSES | 1.000 EA |
| HW4500A01 | 1641B(ALEMITE)400 UNIV, GREASE FITT | 1.000 EA |
| HW5100A06 | W2420-025 WVY WSHR (WB) | 1.000 EA |
| 37PE3100A01 | PUEP ASSEMBLY - ROUTING PUPROSES | 1.000 EA |
| HW4500A01 | 1641B(ALEMITE)400 UNIV, GREASE FITT | 1.000 EA |
| XY3118A12 | 5/16-18 HEX NUT DIRECTIONAL SERRATION | 4.000 EA |
| 51XB1214A20 | 12-14X1.25 HXWSSLD SERTYB | 1.000 EA |
| 07FH4007SP | PRIMED | 1.000 EA |
| 51XW1032A06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 EA |
| 37CB4516 | LIPPED LID FOR 37 FRAME NEC KOBX | 1.000 EA |
| 37GS1008 | 37 GS FOR CB LID - LEXIDE | 1.000 EA |
| 51XW0832A07 | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 EA |
| HW2501F21 | KEY, 5/16 SQ X 2.375 | 1.000 EA |
| HA7000A02 | KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA | 1.000 EA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 2.000 EA |
| LB1115N | LABEL,LIFTING DEVICE (ON ROLLS) | 1.000 EA |

| Parts List (continued) | | |
|-------------------------------|--|-----------------|
| Part Number | Description | Quantity |
| MJ1000A02 | GREASE, POLYREX EM EXXON (USe 4824-15A) | 0.050 LB |
| MG1000Y03 | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20, | 0.028 GA |
| HA3104A14 | THRUBOLT- 5/16-18 X12.125(OHIO) | 4.000 EA |
| LC0005E01 | CONN.DIA./WARNING LABEL (LC0005/LB1119N) | 1.000 EA |
| NP3441L | ALUM SUPER-E VPWM INVERTER READY UL | 1.000 EA |
| G0PA1000 | PKG GRP, PRINT PK1026A06 | 1.000 EA |
| MN416A01 | TAG-INSTAL-MAINT no wire (1200/bx) 5/18 | 1.000 EA |

AC Induction Motor Performance Data

Record # 53378 - Typical performance - not guaranteed values

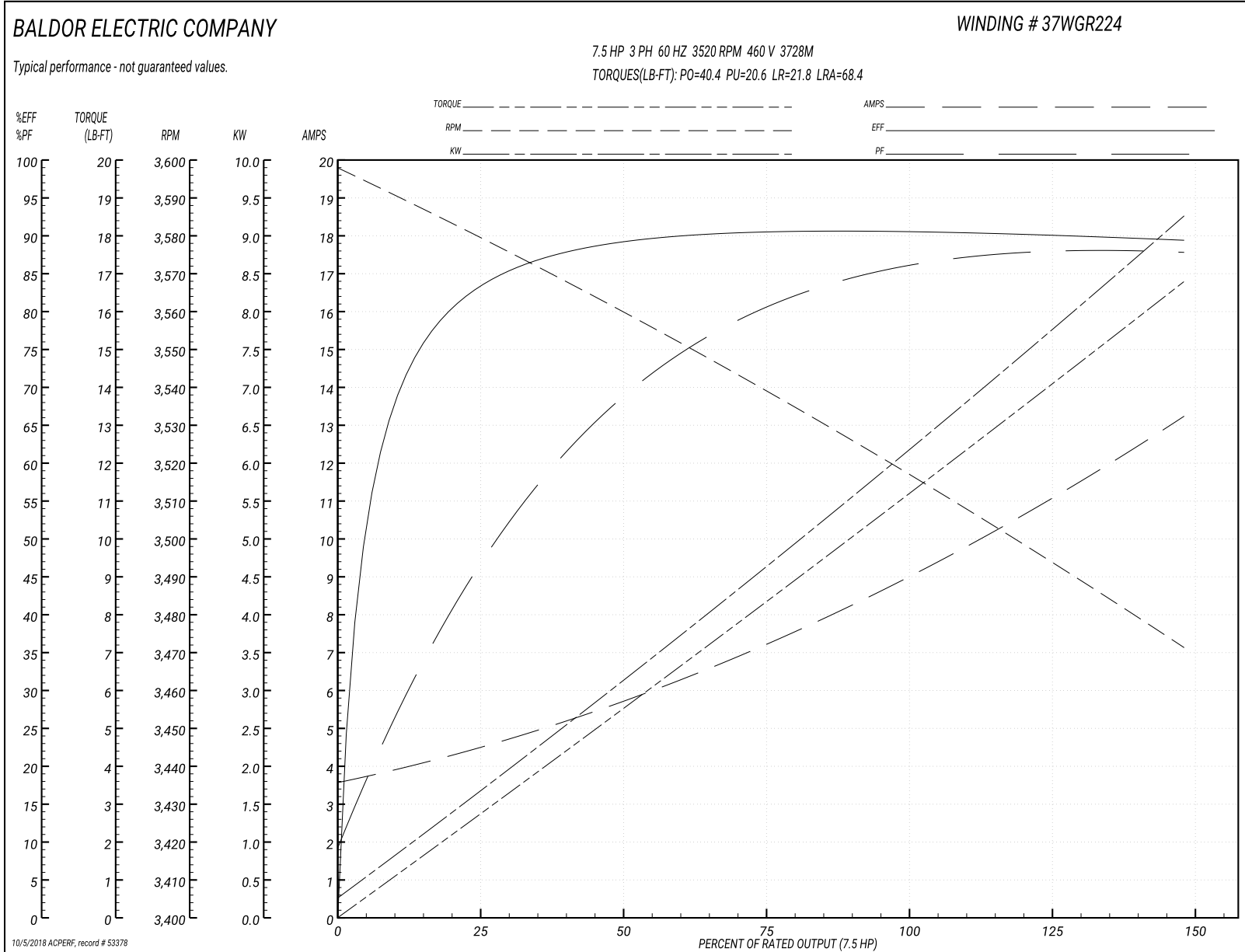
| | | |
|-------------------------------|--------------------|------------------------|
| Winding: 37WGR224-R033 | Type: 3728M | Enclosure: TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data | | | | 460 V, 60 Hz: High Voltage Connection | |
|-----------------------|--------------|--------------|----|--|--------------------------|
| Rated Output (HP) | 7.5 | | | Full Load Torque | 10.9 LB-FT |
| Volts | 230/460 | | | Start Configuration | direct on line |
| Full Load Amps | 18/9 | | | Breakdown Torque | 40.4 LB-FT |
| R.P.M. | 3520 | | | Pull-up Torque | 20.6 LB-FT |
| Hz | 60 | Phase | 3 | Locked-rotor Torque | 21.8 LB-FT |
| NEMA Design Code | A | KVA Code | J | Starting Current | 68.4 A |
| Service Factor (S.F.) | 1.15 | | | No-load Current | 3.73 A |
| NEMA Nom. Eff. | 89.5 | Power Factor | 84 | Line-line Res. @ 25°C | 1.1531 Ω |
| Rating - Duty | 40C AMB-CONT | | | Temp. Rise @ Rated Load | 45°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 54°C |
| | | | | Locked-rotor Power Factor | 33 |
| | | | | Rotor inertia | 0.255 LB-FT ² |

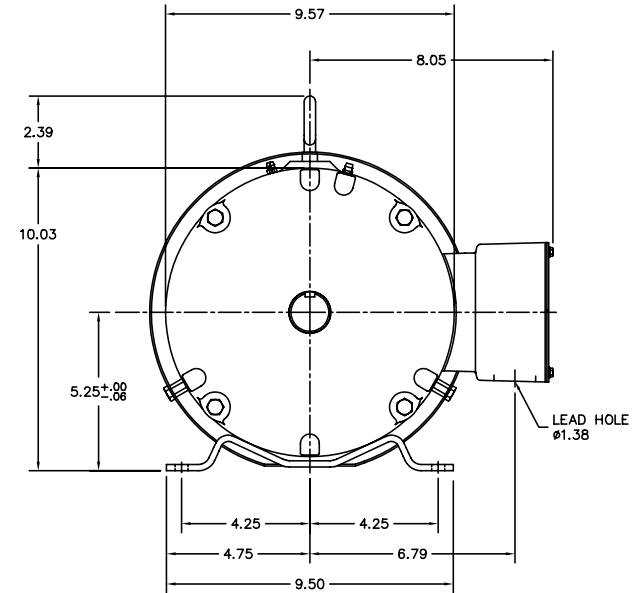
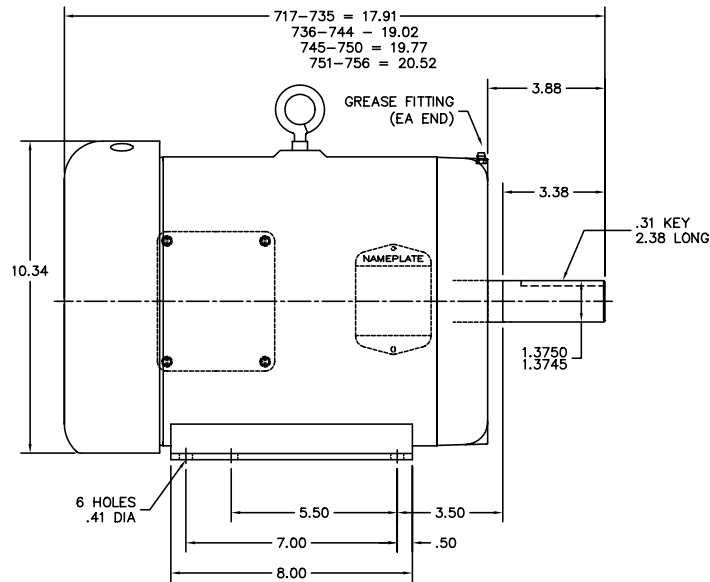
Load Characteristics 460 V, 60 Hz, 7.5 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor | 45 | 69 | 79 | 84 | 87 | 89 | 86 |
| Efficiency | 81.5 | 88.8 | 90.5 | 90.6 | 90.1 | 89.2 | 90.3 |
| Speed | 3580.5 | 3562.7 | 3541.6 | 3520.3 | 3496.3 | 3470.9 | 3506 |
| Line amperes | 4.22 | 5.36 | 7.03 | 8.94 | 11 | 13.1 | 10.2 |

Performance Graph at 460V, 60Hz, 7.5HP Typical performance - Not guaranteed values



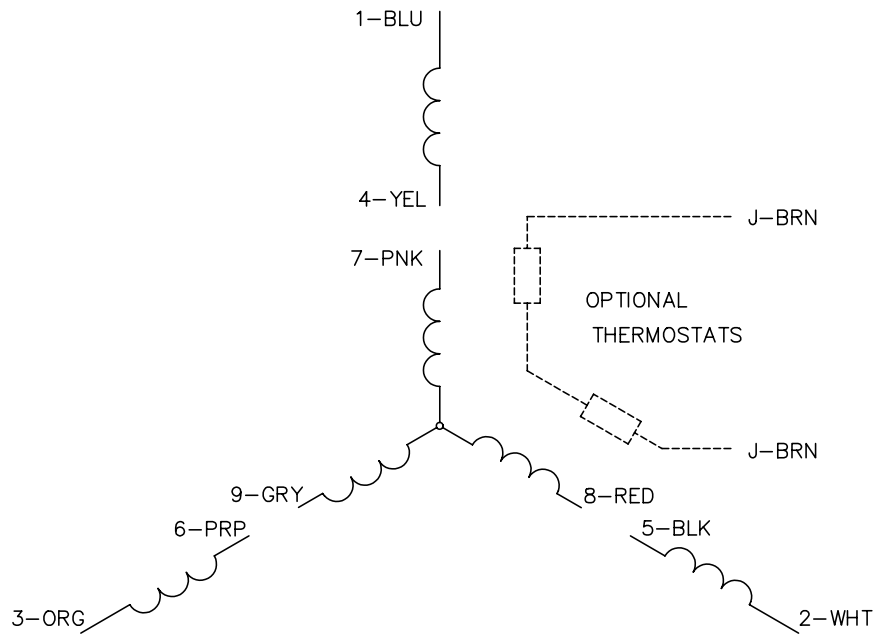
37LYA006



| | | | | | |
|----------------------------------|------------|------------------------|---------------------|-----------------------------|-----------------------|
| CUST. NAME | CUST. P.O. | CERTIFIED BY | MODEL | INSUL | AMB |
| H.P. | MTG | TYPE | R.P.M. | VOLTS | ENCL PHASE FREQ FRAME |
| REV. DESC: 37CB3006 WAS 37CB3004 | | | BALDOR ELECTRIC Co. | | |
| REV. LTR: D | BY: JMB | REVISED: 04/04/00 8:18 | TDR: 0204099 | STD HORZ 213-5T TEFC 37M F2 | |
| FILE: AAA00033062 | MDL: - | | | | |
| MTL: - | | | | | |

37LYA006

CD0005



LOW VOLTAGE
(2Y)



LINE

HIGH VOLTAGE
(1Y)



LINE

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: REVISE TO SHOW OPTIONAL COLORS | | | |
| REV. LTR: E | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| 90000 | | FILE: AAA00005140 | MDL: - |
| | | MTL: - | |

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005