

# **BALDOR® • RELIANCE**

## **Product Information Packet**

### **EM3713T**

**15HP,3500RPM,3PH,60HZ,215T,3752M,TEFC,F1**

| Part Detail |      |                |       |             |          |               |            |
|-------------|------|----------------|-------|-------------|----------|---------------|------------|
| Revision:   | L    | Status:        | PRD/A | Change #:   |          | Proprietary:  | No         |
| Type:       | AC   | Prod. Type:    | 3752M | Elec. Spec: | 37WGR228 | CD Diagram:   | CD0180     |
| Enclosure:  | TEFC | Mfg Plant:     |       | Mech. Spec: | 37H244   | Layout:       | 37LYH244   |
| Frame:      | 215T | Mounting:      | F1    | Poles:      | 02       | Created Date: | 01-16-2012 |
| Base:       | RG   | Rotation:      | R     | Insulation: | F        | Eff. Date:    | 10-16-2015 |
| Leads:      | 9#14 |                |       |             |          | Replaced By:  |            |
| Literature: |      | Elec. Diagram: |       |             |          |               |            |

## Nameplate NP3441LUA

|                               |              |  |  |                |  |      |     |    |   |    |  |   |    |      |   |
|-------------------------------|--------------|--|--|----------------|--|------|-----|----|---|----|--|---|----|------|---|
| CAT.NO.                       | EM3713T      |  |  |                |  |      |     |    |   |    |  |   |    |      |   |
| SPEC.                         | 37H244R228G1 |  |  |                |  |      |     |    |   |    |  |   |    |      |   |
| HP                            | 15           |  |  |                |  |      |     |    |   |    |  |   |    |      |   |
| VOLTS                         | 230/460      |  |  |                |  |      |     |    |   |    |  |   |    |      |   |
| AMP                           | 34/17        |  |  |                |  |      |     |    |   |    |  |   |    |      |   |
| RPM                           | 3500         |  |  |                |  |      |     |    |   |    |  |   |    |      |   |
| FRAME                         | 215T         |  |  |                |  | HZ   |     | 60 |   |    |  |   | PH |      | 3 |
| SER.F.                        | 1.15         |  |  | CODE           |  | J    | DES |    | A | CL |  | F |    |      |   |
| NEMA-NOM-EFF                  | 91           |  |  | PF             |  | 89   |     |    |   |    |  |   |    |      |   |
| RATING                        | 40C AMB-CONT |  |  |                |  |      |     |    |   |    |  |   |    |      |   |
| CC                            | 010A         |  |  | USABLE AT 208V |  |      |     |    |   |    |  |   |    | 36.8 |   |
| DE                            | 6307         |  |  | ODE            |  | 6206 |     |    |   |    |  |   |    |      |   |
| ENCL                          | TEFC         |  |  | SN             |  |      |     |    |   |    |  |   |    |      |   |
| INVERTER READY                |              |  |  |                |  |      |     |    |   |    |  |   |    |      |   |
| 10:1)VT3-60H(20:1             |              |  |  |                |  |      |     |    |   |    |  |   |    |      |   |
| 50Hz 15HP 190/380V 40.8/20.4A |              |  |  |                |  |      |     |    |   |    |  |   |    |      |   |

| Parts List  |                                          |          |
|-------------|------------------------------------------|----------|
| Part Number | Description                              | Quantity |
| SA237196    | SA 37H244R228G1                          | 1.000 EA |
| RA224129    | RA 37H244R228G1                          | 1.000 EA |
| 37FN3002B01 | EXFN, PLASTIC, 7.50 OD, 1.155 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 |
| 37GS1000    | 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 |
| 07FH4007    | 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 |
| MJ1000A02   | GREASE, POLYREX EM EXXON (USe 4824-15A)  | 0.050 LB |

| Parts List (continued) |                                          |          |
|------------------------|------------------------------------------|----------|
| Part Number            | Description                              | Quantity |
| 51XB1214A20            | 12-14X1.25 HXWSSLD SERTYB                | 1.000 EA |
| MG1000Y03              | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,      | 0.028 GA |
| HA3104A25              | THRUBOLT .31-18 X 14.75                  | 4.000 EA |
| LB1119N                | WARNING LABEL                            | 1.000 EA |
| LC0181                 | CONNECTION LABEL                         | 1.000 EA |
| NP3441LUA              | ALUM SUPER-E VPWM INV READY UL           | 1.000 EA |
| 37PA1039               | PALLET PACK GRP, PRINT PK1026A06         | 1.000 EA |
| MN416A01               | TAG-INSTAL-MAINT no wire (1200/bx) 11/14 | 1.000 EA |

**AC Induction Motor Performance Data**

Record # 53380 - Typical performance - not guaranteed values

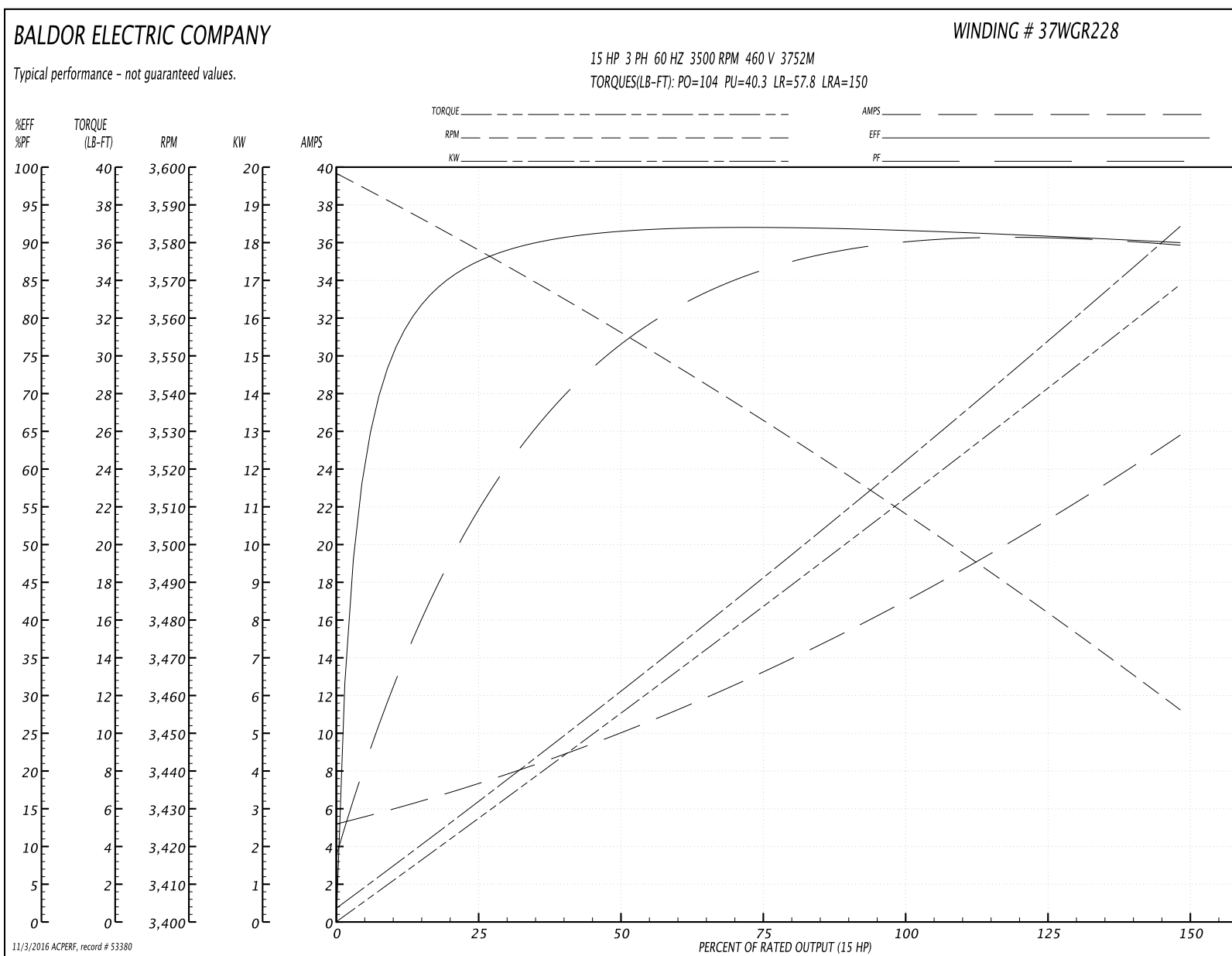
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 37WGR228-R023 | <b>Type:</b> 3752M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data        |              |              |    | 460 V, 60 Hz:<br>High Voltage Connection |                |
|-----------------------|--------------|--------------|----|------------------------------------------|----------------|
| Rated Output (HP)     | 15           |              |    | Full Load Torque                         | 22.1 LB-FT     |
| Volts                 | 230/460      |              |    | Start Configuration                      | direct on line |
| Full Load Amps        | 34/17        |              |    | Breakdown Torque                         | 104 LB-FT      |
| R.P.M.                | 3500         |              |    | Pull-up Torque                           | 40.3 LB-FT     |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                      | 57.8 LB-FT     |
| NEMA Design Code      | A            | KVA Code     | J  | Starting Current                         | 150 A          |
| Service Factor (S.F.) | 1.15         |              |    | No-load Current                          | 5.55 A         |
| NEMA Nom. Eff.        | 91           | Power Factor | 89 | Line-line Res. @ 25°C                    | 0.46531 Ω      |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                  | 67°C           |
| S.F. Amps             |              |              |    | Temp. Rise @ S.F. Load                   | 82°C           |

**Load Characteristics 460 V, 60 Hz, 15 HP**

|                 |        |        |        |        |        |        |      |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
| Power Factor    | 55     | 77     | 85     | 88     | 90     | 91     | 89   |
| Efficiency      | 86.8   | 91.5   | 92.2   | 91.8   | 91     | 89.9   | 91.3 |
| Speed           | 3579.2 | 3557.5 | 3534.4 | 3510.2 | 3484.5 | 3455.7 | 3495 |
| Line amperes    | 6.7    | 9.54   | 13.2   | 17     | 21.1   | 25.6   | 19.5 |

## Performance Graph at 460V, 60Hz, 15.0HP Typical performance - Not guaranteed values



**AC Induction Motor Performance Data**

Record # 57899 - Typical performance - not guaranteed values

|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 37WGR228-R023 | <b>Type:</b> 3752M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data        |              |              |    | 230 V, 60 Hz:<br>Low Voltage Connection |                          |
|-----------------------|--------------|--------------|----|-----------------------------------------|--------------------------|
| Rated Output (HP)     | 15           |              |    | Full Load Torque                        | 22.1 LB-FT               |
| Volts                 | 230/460      |              |    | Start Configuration                     | direct on line           |
| Full Load Amps        | 34/17        |              |    | Breakdown Torque                        | 104 LB-FT                |
| R.P.M.                | 3500         |              |    | Pull-up Torque                          | 40.3 LB-FT               |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                     | 57.8 LB-FT               |
| NEMA Design Code      | A            | KVA Code     | J  | Starting Current                        | 300 A                    |
| Service Factor (S.F.) | 1.15         |              |    | No-load Current                         | 11.1 A                   |
| NEMA Nom. Eff.        | 91           | Power Factor | 89 | Line-line Res. @ 25°C                   | 0.111 Ω                  |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                 | 67°C                     |
| S.F. Amps             |              |              |    | Temp. Rise @ S.F. Load                  | 82°C                     |
|                       |              |              |    | Rotor inertia                           | 0.474 LB-FT <sup>2</sup> |

**Load Characteristics 230 V, 60 Hz, 15 HP**

|                 |      |      |      |      |      |      |      |
|-----------------|------|------|------|------|------|------|------|
| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
| Power Factor    | 56   | 77   | 85   | 89   | 90   | 90   | 90   |
| Efficiency      | 86.8 | 91.1 | 92   | 91.8 | 91   | 90   | 91.3 |
| Speed           | 3579 | 3558 | 3534 | 3510 | 3485 | 3456 | 3495 |
| Line amperes    | 13.4 | 19.1 | 26.4 | 34   | 42.2 | 51.2 | 38.9 |

## Performance Graph at 230V, 60Hz, 15.0HP Typical performance - Not guaranteed values

