

# **BALDOR**® • ***RELIANCE***

## **Product Information Packet**

# **M1509T**

**7.5/3.8HP, 1740/860RPM, 3PH, 60HZ, 215T, 3754**

| Part Detail |      |                |       |             |          |               |            |
|-------------|------|----------------|-------|-------------|----------|---------------|------------|
| Revision:   | F    | Status:        | PRD/A | Change #:   |          | Proprietary:  | No         |
| Type:       | AC   | Prod. Type:    | 3754M | Elec. Spec: | 37WGS296 | CD Diagram:   | CD0011     |
| Enclosure:  | TEFC | Mfg Plant:     |       | Mech. Spec: | 37A001   | Layout:       | 37LYA001   |
| Frame:      | 215T | Mounting:      | F1    | Poles:      | 04/08    | Created Date: | 02-06-2007 |
| Base:       | RG   | Rotation:      | R     | Insulation: | F        | Eff. Date:    | 07-23-2015 |
| Leads:      | 6#14 |                |       |             |          | Replaced By:  |            |
| Literature: |      | Elec. Diagram: |       |             |          |               |            |

| Nameplate NP1256L |              |  |      |   |     |      |  |       |                |   |
|-------------------|--------------|--|------|---|-----|------|--|-------|----------------|---|
| CAT.NO.           | M1509T       |  |      |   |     |      |  |       |                |   |
| SPEC.             | 37A001S296   |  |      |   |     |      |  |       |                |   |
| HP                | 7.5/3.8      |  |      |   |     |      |  |       |                |   |
| VOLTS             | 230          |  |      |   |     |      |  |       |                |   |
| AMP               | 18.9/16.6    |  |      |   |     |      |  |       |                |   |
| RPM               | 1740/860     |  |      |   |     |      |  |       |                |   |
| FRAME             | 215T         |  |      |   | HZ  | 60   |  |       | PH             | 3 |
| SER.F.            | 1.15         |  | CODE | K | DES | B    |  | CLASS | F              |   |
| NEMA-NOM-EFF      |              |  | PF   |   |     |      |  |       |                |   |
| RATING            | 40C AMB-CONT |  |      |   |     |      |  |       |                |   |
| CC                |              |  |      |   |     |      |  |       | USABLE AT 208V |   |
| DE                | 6307         |  |      |   | ODE | 6206 |  |       |                |   |
| ENCL              | TEFC         |  | SN   |   |     |      |  |       |                |   |

| Parts List  |  |          |
|-------------|--|----------|
| Part Number | Description                              | Quantity |
| SA153309    | SA 37A001S296                            | 1.000 EA |
| RA142024    | RA 37A001S296                            | 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 |
| 51XB1214A20 | 12-14X1.25 HXWSSLD SERTYB                | 1.000 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 |
| 37GS1008SP  | 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 |
| LB1115N     | LABEL,LIFTING DEVICE (ON ROLLS)          | 1.000 EA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 EA |
| MJ1000A02   | GREASE, POLYREX EM EXXON (USe 4824-15A)  | 0.050 LB |

| <b>Parts List (continued)</b> |  |                 |
|-------------------------------|--|-----------------|
| <b>Part Number</b>            | <b>Description</b>                       | <b>Quantity</b> |
| 37FN3002A01SP                 | EXFN, PLASTIC, 9.00 OD, 1.155 ID         | 1.000 EA        |
| MG1000G27                     | MED CHARCOAL METALLIC GREY 400-0096      | 0.028 GA        |
| HA3104A25                     | THRUBOLT .31-18 X 14.75                  | 4.000 EA        |
| LB1119N                       | WARNING LABEL                            | 1.000 EA        |
| LC0032                        | CONNECTION LABEL                         | 1.000 EA        |
| NP1256L                       | ALUM UL CSA CC                           | 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        |

| <b>Accessories</b> |                    |                   |
|--------------------|--------------------|-------------------|
| <b>Part Number</b> | <b>Description</b> | <b>Multiplier</b> |
| 37-3301            | C FACE KIT         | P1                |

**AC Induction Motor Performance Data**

Record # 23678 - Typical performance - not guaranteed values

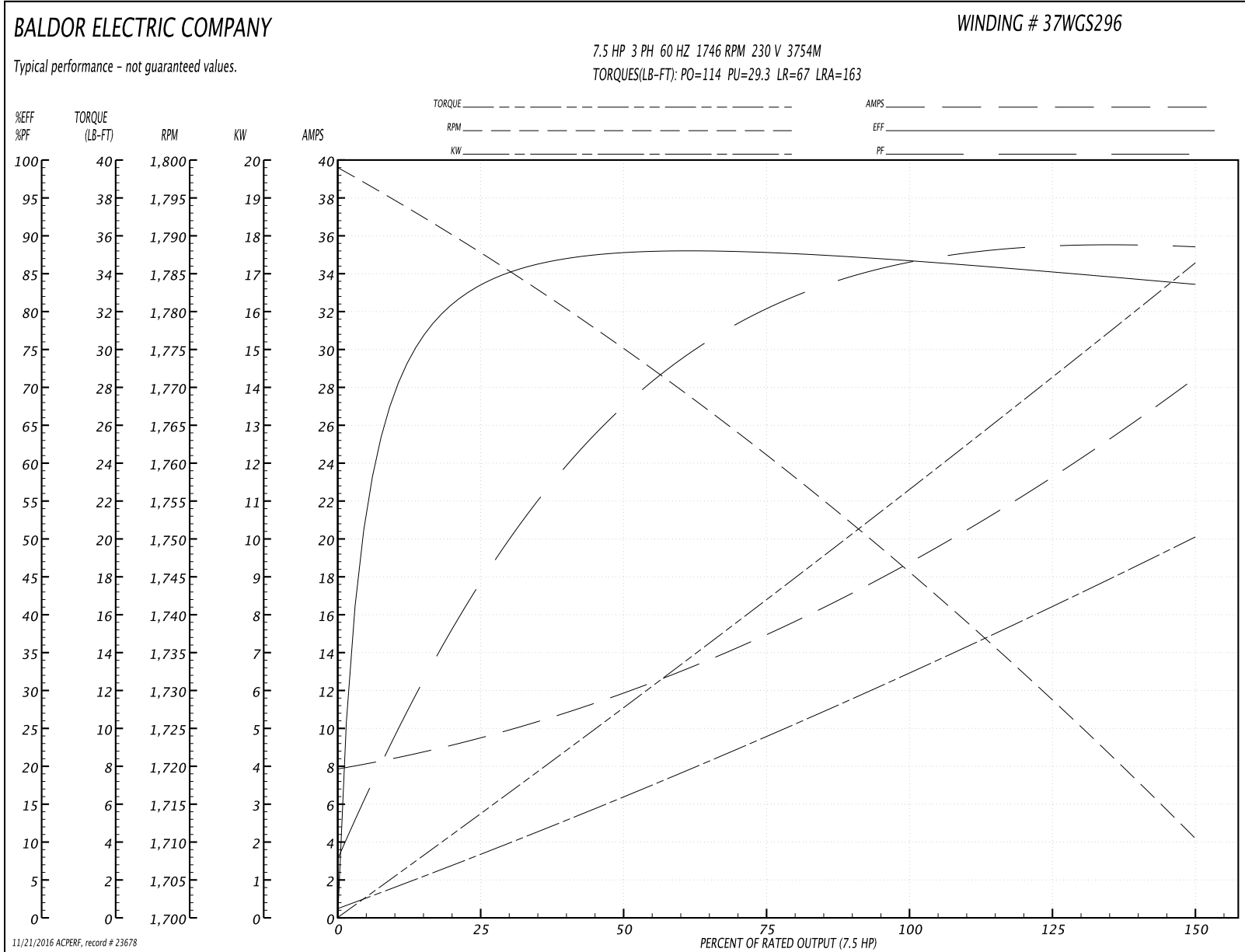
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 37WGS296-R001 | <b>Type:</b> 3754M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data        |              |              |   | 230 V, 60 Hz:<br>High Speed Connection |                |
|-----------------------|--------------|--------------|---|--|----------------|
| Rated Output (HP)     | 7.5/3.8      |              |   | Full Load Torque                       | 22.4 LB-FT     |
| Volts                 | 230          |              |   | Start Configuration                    | direct on line |
| Full Load Amps        | 18.9/16.6    |              |   | Breakdown Torque                       | 114 LB-FT      |
| R.P.M.                | 1740/860     |              |   | Pull-up Torque                         | 29.3 LB-FT     |
| Hz                    | 60           | Phase        | 3 | Locked-rotor Torque                    | 67 LB-FT       |
| NEMA Design Code      | B            | KVA Code     | K | Starting Current                       | 163 A          |
| Service Factor (S.F.) | 1.15         |              |   | No-load Current                        | 8.18 A         |
| NEMA Nom. Eff.        | 0            | Power Factor | 0 | Line-line Res. @ 25°C                  | 0.489 Ω        |
| Rating - Duty         | 40C AMB-CONT |              |   | Temp. Rise @ Rated Load                | 75°C           |
| S.F. Amps             |              |              |   | Temp. Rise @ S.F. Load                 | 94°C           |

Load Characteristics 230 V, 60 Hz, 7.5 HP

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 46   | 69   | 80   | 85   | 88   | 89   | 87   |
| Efficiency      | 83.9 | 88.4 | 88.6 | 87.4 | 85.7 | 83.5 | 86.4 |
| Speed           | 1788 | 1775 | 1761 | 1746 | 1730 | 1710 | 1736 |
| Line amperes    | 9.11 | 11.6 | 15   | 18.9 | 23.3 | 28.3 | 21.5 |

Performance Graph at 230V, 60Hz, 7.5HP Typical performance - Not guaranteed values



**AC Induction Motor Performance Data**

Record # 23679 - Typical performance - not guaranteed values

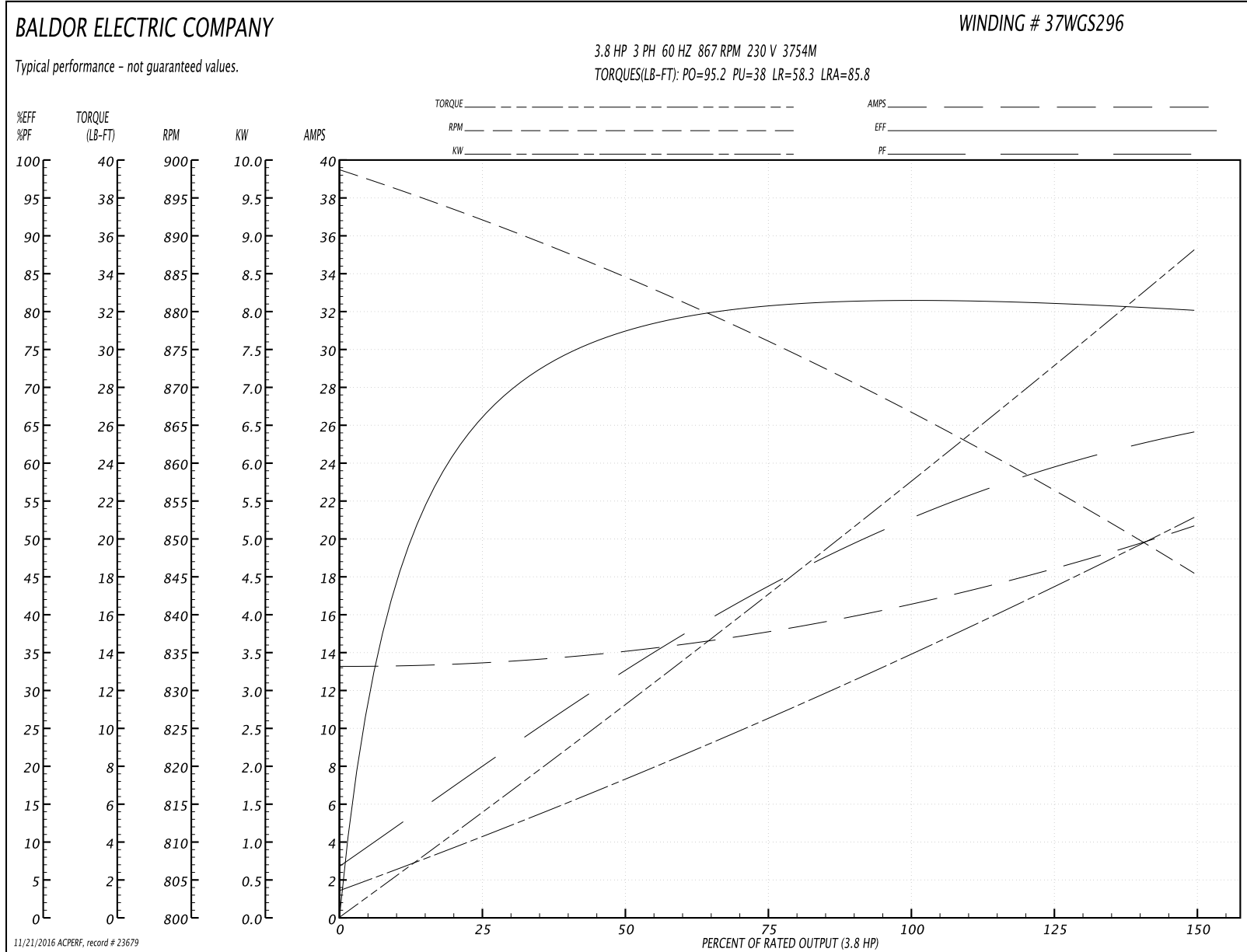
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 37WGS296-R001 | <b>Type:</b> 3754M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

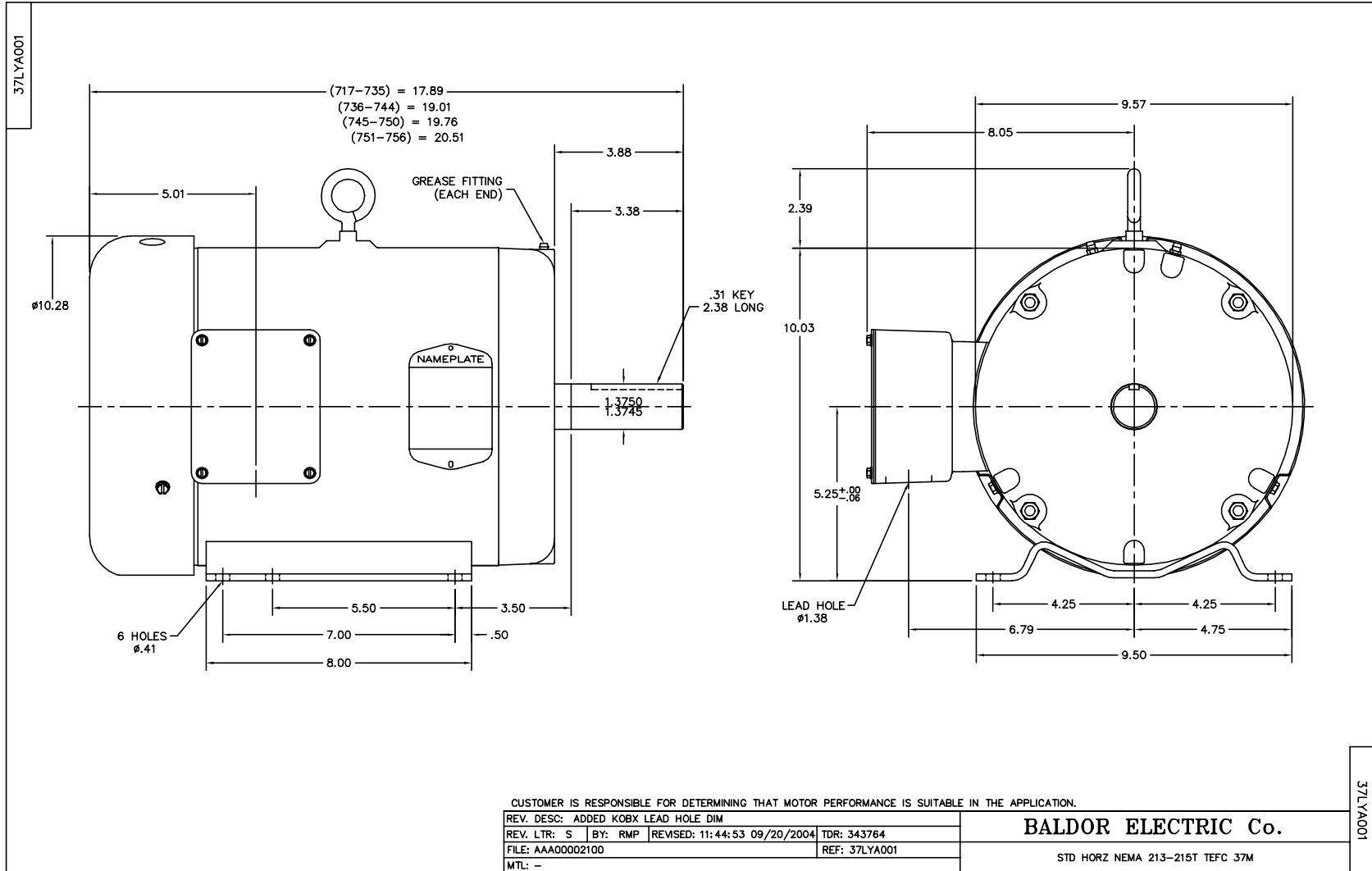
| Nameplate Data        |              |              |   | 230 V, 60 Hz:<br>Low Speed Connection |                |
|-----------------------|--------------|--------------|---|---------------------------------------|----------------|
| Rated Output (HP)     | 7.5/3.8      |              |   | Full Load Torque                      | 23.1 LB-FT     |
| Volts                 | 230          |              |   | Start Configuration                   | direct on line |
| Full Load Amps        | 18.9/16.6    |              |   | Breakdown Torque                      | 95.2 LB-FT     |
| R.P.M.                | 1740/860     |              |   | Pull-up Torque                        | 38 LB-FT       |
| Hz                    | 60           | Phase        | 3 | Locked-rotor Torque                   | 58.3 LB-FT     |
| NEMA Design Code      | B            | KVA Code     | K | Starting Current                      | 85.8 A         |
| Service Factor (S.F.) | 1.15         |              |   | No-load Current                       | 13.3 A         |
| NEMA Nom. Eff.        | 0            | Power Factor | 0 | Line-line Res. @ 25°C                 | 0.645 Ω        |
| Rating - Duty         | 40C AMB-CONT |              |   | Temp. Rise @ Rated Load               | 84°C           |
| S.F. Amps             |              |              |   | Temp. Rise @ S.F. Load                | 98°C           |

Load Characteristics 230 V, 60 Hz, 3.8 HP

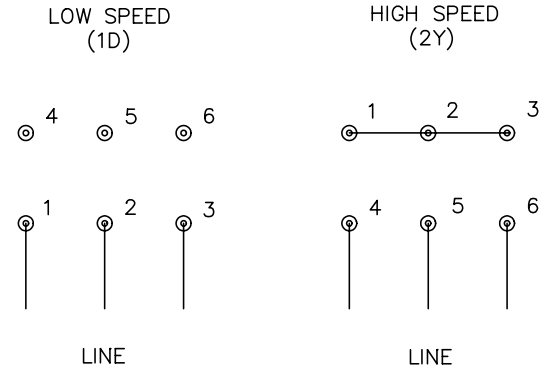
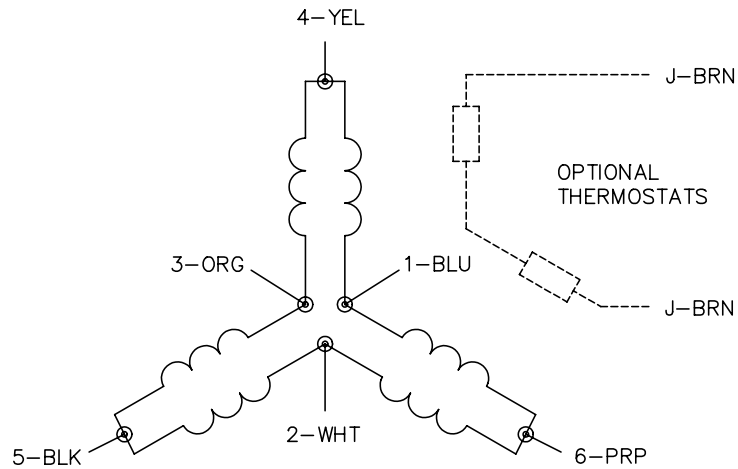
| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 20   | 33   | 44   | 52   | 59   | 64   | 56   |
| Efficiency      | 65.8 | 77.3 | 80.9 | 81.8 | 81.3 | 80.1 | 81.5 |
| Speed           | 892  | 884  | 876  | 867  | 857  | 845  | 861  |
| Line amperes    | 13.4 | 14.1 | 15.1 | 16.6 | 18.4 | 20.7 | 17.7 |

Performance Graph at 230V, 60Hz, 3.8HP Typical performance - Not guaranteed values





CD0011



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: F                               | BY: JLP | REVISED: 01/21/99 5:04 | TDR: 0171435 |
| 110000                                    |         | FILE: DWG\142.wg       | MDL: -       |
|   |         | MTL: -                 |              |

**BALDOR ELECTRIC Co.**

3PH, SV, 6 LEADS, 2-SPEED 1-WINDING CONSTANT TORQUE

CD0011