

# BALDOR ENCP83581T-4 Servo motor manual

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Revision: G Status: PRD/A Change #: Proprietary: No  
Type: AC Prod. Type: 0524M Elec. Spec: 05WGW751 CD Diagram:  
Enclosure: TENV Mfg Plant: Mech. Spec: 05E276 Layout:  
Frame: 143T Mounting: F1 Poles: 04 Created Date: 11-19-2007  
Base: RG Rotation: R Insulation: F Eff. Date: 10-25-2011  
Leads: 3#18 Literature: Elec. Diagram: Replaced By:

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# **BALDOR**® • *RELIANCE*

## Product Information Packet

# **ENC83581T-4**

**1HP,1765RPM,3PH,60HZ,143T,0524M,TENV,F1**

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| Part Detail |      |             |       |                |          |               |            |
|-------------|------|-------------|-------|----------------|----------|---------------|------------|
| Revision:   | G    | Status:     | PRD/A | Change #:      |          | Proprietary:  | No         |
| Type:       | AC   | Prod. Type: | 0524M | Elec. Spec:    | 05WGW751 | CD Diagram:   |            |
| Enclosure:  | TENV | Mfg Plant:  |       | Mech. Spec:    | 05E276   | Layout:       |            |
| Frame:      | 143T | Mounting:   | F1    | Poles:         | 04       | Created Date: | 11-19-2007 |
| Base:       | RG   | Rotation:   | R     | Insulation:    | F        | Eff. Date:    | 10-25-2011 |
| Leads:      | 3#18 | Literature: |       | Elec. Diagram: |          | Replaced By:  |            |

| Nameplate NP2162E |              |         |  |      |     |  |   |    |   |
|-------------------|--------------|---------|--|------|-----|--|---|----|---|
| CAT.NO.           | ENCP83581T-4 |         |  |      |     |  |   |    |   |
| SPEC.             | 05E276W751G1 |         |  |      |     |  |   |    |   |
| HP                | 1            | T. CODE |  |      | T3  |  |   |    |   |
| VOLTS             | 460          |         |  |      |     |  |   |    |   |
| AMP               | 1.5          |         |  |      |     |  |   |    |   |
| RPM               | 1765         |         |  |      |     |  |   |    |   |
| FRAME             | 143T         | HZ      |  | 60   | PH  |  | 3 |    |   |
| SER.F.            | 1.15         | CODE    |  | N    | DES |  | B | CL | F |
| NEMA-NOM-EFF      | 87.5         | PF      |  | 70   |     |  |   |    |   |
| G.MIN.EFF         | 85.5         | CC      |  |      |     |  |   |    |   |
| RATING            | 40C AMB-CONT |         |  |      |     |  |   |    |   |
| DE                | 6205         | ODE     |  | 6203 |     |  |   |    |   |
| ENCL              | TENV         | SN      |  |      |     |  |   |    |   |

| Nameplate NP2113E       |              |                   |     |
|-------------------------|--------------|-------------------|-----|
| SPEC.                   | 05E276W751G1 |                   |     |
| MOTOR WEIGHT            | 58 LBS       |                   |     |
| GREASE                  | POLYREX EM   |                   |     |
| MAX. KVAR               | .46          |                   |     |
| # OF ROTOR BARS         | 28           | # OF STATOR SLOTS | 36  |
| BLANK                   |              |                   |     |
| HTR-VOLTS               | N/A          | HTR-AMPS          | N/A |
| MAX. SPACE HEATER TEMP. | N/A          |                   |     |

| Parts List   |  |          |
|--------------|--|----------|
| Part Number  | Description                              | Quantity |
| SA165124     | SA 05E276W751G1                          | 1.000 EA |
| RA153537     | RA 05E276W751G1                          | 1.000 EA |
| HW3201A05    | 3/8-16 EYEBOLT                           | 1.000 EA |
| 06CB1001A01G | CONDUIT BOX, MACH GRAY                   | 1.000 EA |
| RM1016       | LEAD SEPARATOR GASKET - 305/306 C.P.MOTO | 1.000 EA |
| 10XN2520A12  | O1/4-20X 3/4 HEX HEAD CAP                | 2.000 EA |
| HW1001A25    | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 2.000 EA |
| 11XW1032G06  | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 EA |
| HW3001B01    | 003SS CUP WASHER, FOR #8 SCREW           | 1.000 EA |
| 10XN2520S06  | 1/4 20X3/8 HX HD CAP S.S.                | 2.000 EA |
| WD1000B16    | KPA-4C BURNDY TERMINAL                   | 2.000 EA |
| 35EP1100B99G | FREP TENV 203,GRSR,RLF, .25-28 DRAIN     | 1.000 EA |
| HW4500A01    | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 EA |
| HA4051A00    | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |
| HW4500A17    | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HA4010A01    | DRAIN PLUG,416 S.S.,W/ 1/4-28 THD & .076 | 1.000 EA |
| HW5100A03SP  | WAVY WASHER (W1543-017)                  | 1.000 EA |
| 05EP1100A01G | PUEP ENCL 205,BRG RET,GRSR,RLF,DRAIN FIT | 1.000 EA |
| HW4601A22    | INPRO SEAL, 205 BRG, VBX                 | 1.000 EA |
| HW4600B36SP  | V-RING SLINGER 1.188 X 1.690 X 0.240     | 1.000 EA |
| HW4500A01    | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 EA |
| HA4051A00    | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |
| HW4500A17    | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HA4010A01    | DRAIN PLUG,416 S.S.,W/ 1/4-28 THD & .076 | 1.000 EA |

| Parts List (continued) |  |          |
|------------------------|--|----------|
| Part Number            | Description                              | Quantity |
| 51XN1032A20            | 10-32 X 1 1/4 HX WS SL SR                | 2.000 EA |
| HA3100A37              | THRUBOLT 10-32 X 8.500                   | 4.000 EA |
| XY1032A02              | 10-32 HEX NUT DIRECTIONAL SERRATION      | 4.000 EA |
| 06CB1503A01G           | LIPPED CONDUIT BOX LID, MACH GRAY EPOXY  | 1.000 EA |
| 06GS1009               | GASKET, KOBX LID, 1/8" THICK BLACK NEOPR | 1.000 EA |
| 10XN2520A12            | O1/4-20X 3/4 HEX HEAD CAP                | 2.000 EA |
| HW1001A25              | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 2.000 EA |
| HW2501D13SP            | KEY, 3/16 SQ X 1.375                     | 1.000 EA |
| HA7000A01              | KEY RETAINER 7/8" DIA SHAFT              | 1.000 EA |
| MJ5001A01              | 46-665 RED SEALER                        | 0.001 QT |
| MJ1000A73              | INPRO P-80 ASSEMBLY LUB./ 1 QT. CONTAIN  | 0.001 QT |
| 85XU0407S04            | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 EA |
| LB1002                 | LABEL,MARINE DUTY (ON ROLLS)             | 1.000 EA |
| LB1115                 | LABEL,LIFTING DEVICE                     | 1.000 EA |
| LT0019A00              | MOTOR NO-LOAD PERFORMANCE DATA SHEET     | 1.000 EA |
| WD1000D21              | TRM,T&B #B71M,RING,18-14,.25,NON-INSL    | 3.000 EA |
| MJ1000A75              | GREASE, POLYREX EM EXXON                 | 0.050 LB |
| MG1025N19              | PAINT, 778.50 WILKO, RELIANCE ELEC GREEN | 0.022 GA |
| LB1119                 | WARNING LABEL                            | 1.000 EA |
| LB1125C02              | SUPER-E (STOCK CTN LABEL SUPER-E WITH FL | 1.000 EA |
| LB1449                 | DIV-2/NEC WARNING LABEL                  | 1.000 EA |
| LC0006                 | CONNECTION LABEL                         | 1.000 EA |
| LB1357                 | ENERGY GUIDE LABEL (BOX LABEL)           | 1.000 SH |
| NP2162E                | SS IEEE841 DIV-2 UL CSA-C US EEV PREM    | 1.000 EA |

| Parts List (continued) |   |          |
|------------------------|---|----------|
| Part Number            | Description                             | Quantity |
| NP2113E                | SS IEEE841 AUX DATA INFORMATION SURFACE | 1.000 EA |
| 36PA1000               | PACK GROUP W/LB5001                     | 1.000 EA |

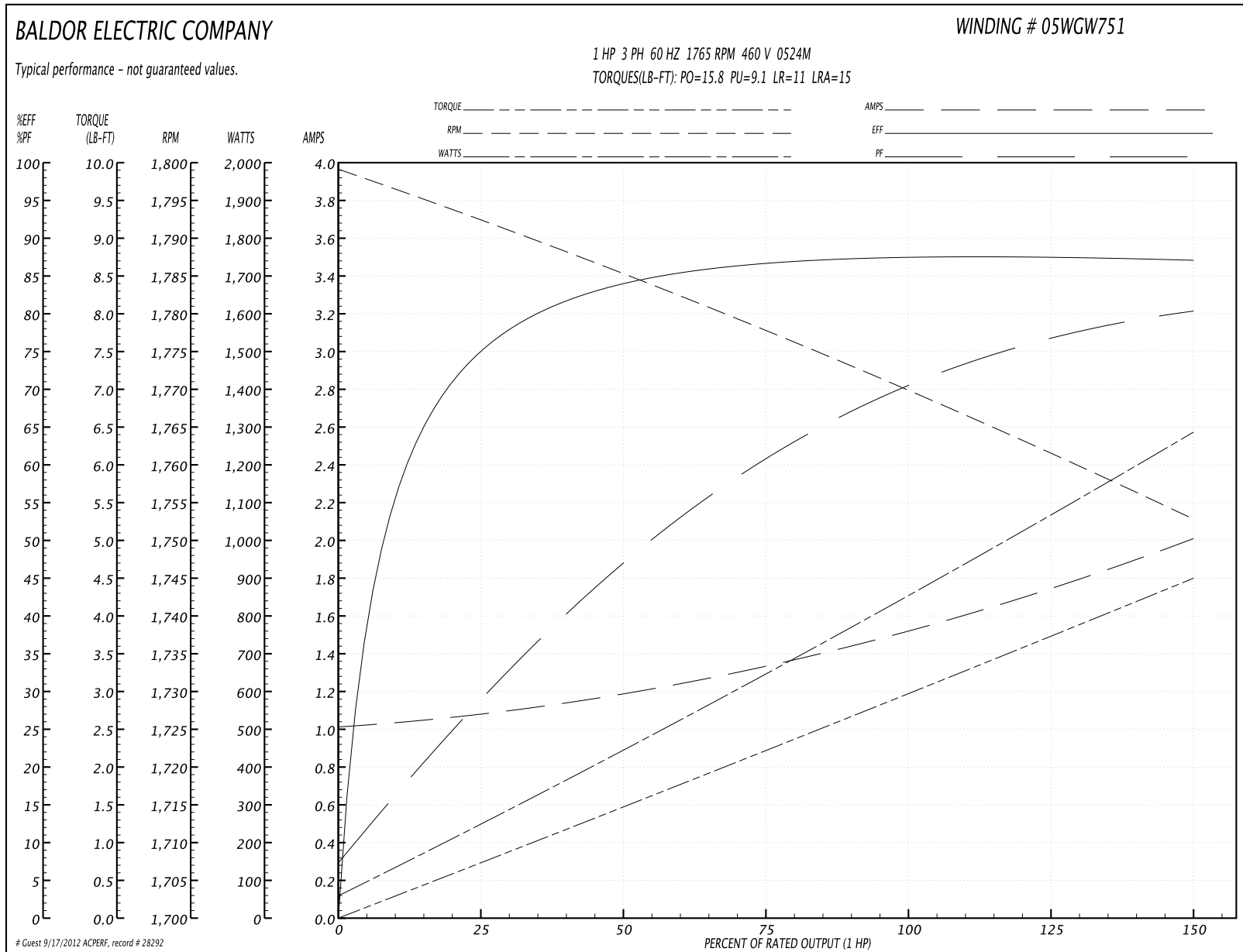
**Performance Data at 460V, 60Hz, 1.0HP (Typical performance - Not guaranteed values)**

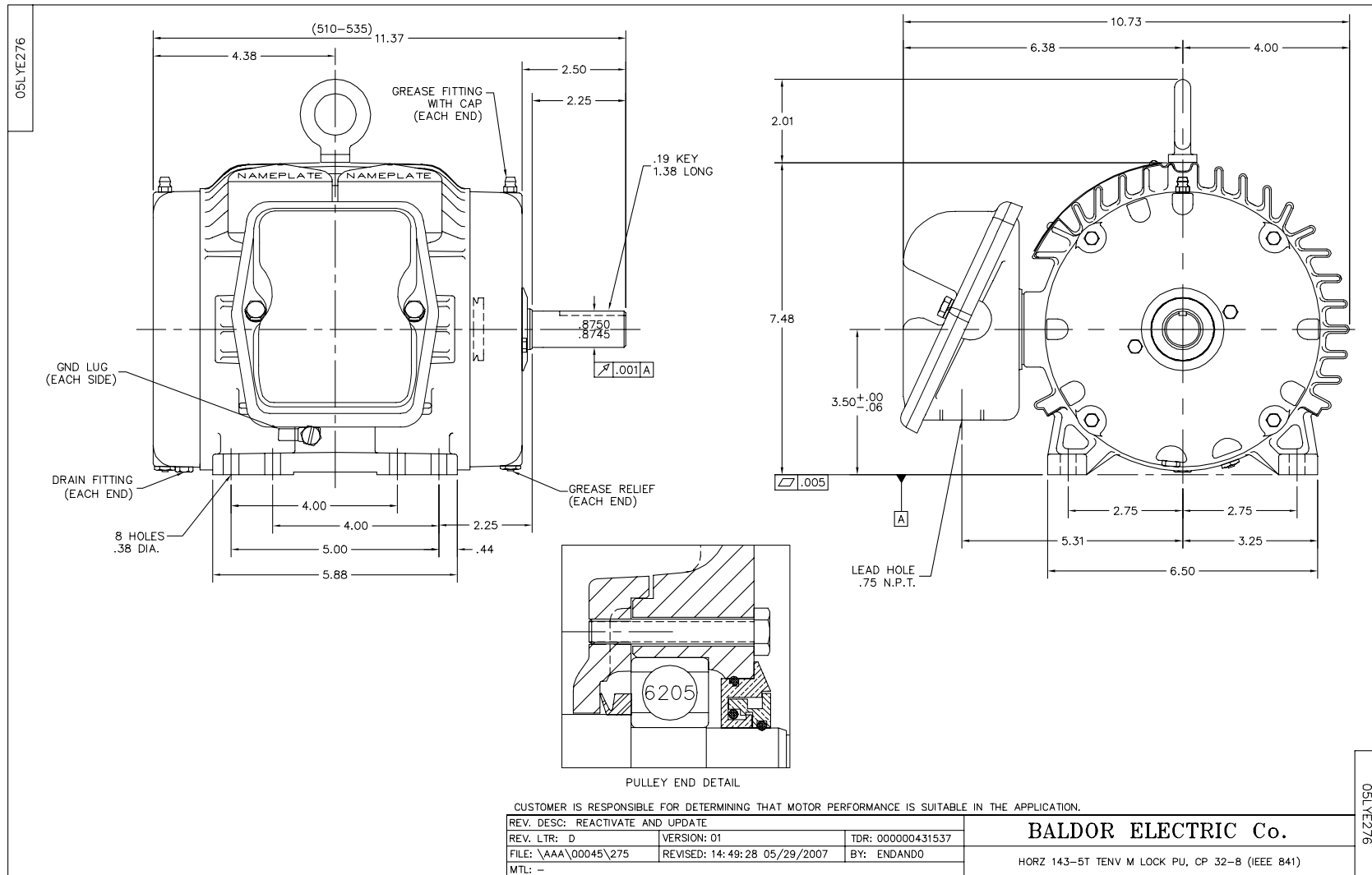
| General Characteristics  |                                |                      |            |
|--------------------------|--------------------------------|----------------------|------------|
| Full Load Torque:        | 2.99 LB-FT                     | Start Configuration: | DOL        |
| No-Load Current:         | 1.02 Amps                      | Break-Down Torque:   | 15.8 LB-FT |
| Line-line Res. @ 25°C.:  | 12.0 Ohms A Ph / 0.0 Ohms B Ph | Pull-Up Torque:      | 9.1 LB-FT  |
| Temp. Rise @ Rated Load: | 32 C                           | Locked-Rotor Torque: | 11.0 LB-FT |
| Temp. Rise @ S.F. Load:  | 36 C                           | Starting Current:    | 15.0 Amps  |

| Load Characteristics |        |        |        |        |        |        |        |
|----------------------|--------|--------|--------|--------|--------|--------|--------|
| % of Rated Load      | 25     | 50     | 75     | 100    | 125    | 150    | S.F.   |
| Power Factor:        | 28.0   | 48.0   | 60.0   | 70.0   | 76.0   | 81.0   | 74.0   |
| Efficiency:          | 74.2   | 83.6   | 86.7   | 87.8   | 87.3   | 87.1   | 87.5   |
| Speed:               | 1793.0 | 1785.0 | 1778.0 | 1770.0 | 1761.0 | 1753.0 | 1765.0 |
| Line Amperes:        | 1.07   | 1.18   | 1.33   | 1.53   | 1.76   | 2.0    | 1.67   |

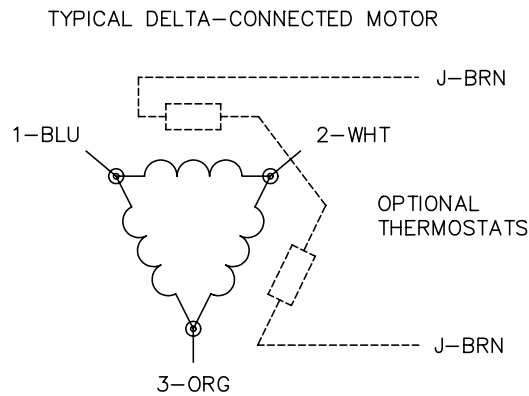
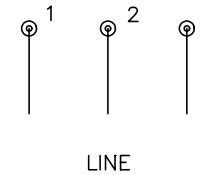
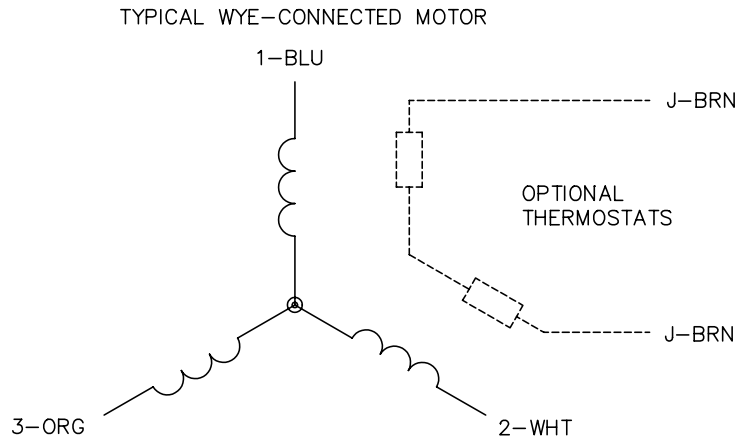


Performance Graph at 460V, 60Hz, 1.0HP Typical performance - Not guaranteed values





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NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

|   |         |                        |              |
|---|---------|------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                        |              |
| REV. LTR: D                               | BY: JLP | REVISED: 01/21/99 4:02 | TDR: 0171435 |
| 9000D                                     |         | FILE: AAA00005141      | MDL: -       |
|   |         | MTL: -                 |              |

**BALDOR ELECTRIC Co.**

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

CD0006

|   |  |   |
|---|--|---|
| LT0019A00   |  |   |
| <p style="text-align: center;"><b>BALDOR<br/>MOTORS AND DRIVES</b></p> <p> <input type="checkbox"/> IEEE 841    <input type="checkbox"/> SPECIAL TEST    <input type="checkbox"/> OTHER<br/>         SPEC. _____ .250 CAT. _____ 2.563<br/>         G.O. _____ / S/N _____<br/>         NO LOAD _____<br/>         VOLTAGE L1: _____ L2: _____ L3: _____<br/>         AMPS L1: _____ L2: _____ L3: _____ .375<br/>         RESISTANCE L1: _____ L2: _____ L3: _____ .375<br/>         RPM _____<br/>         ROTATION <input type="checkbox"/> CW <input type="checkbox"/> CCW HEATER RESISTANCE (WHEN REQ'D) _____<br/>         VIBRATION (IN/SEC.) _____<br/>         OPPOSITE DRIVE END    DRIVE END<br/>         HORZ.    VERT.    HORZ.    VERT.    AXIAL.<br/>         _____ .625    .875    _____    _____    .875<br/>         TESTER _____ DATE ____/____/____<br/>         OTHER _____<br/>         _____ .375 (TYP)    _____ 1.125<br/>         _____ 3.000    _____ 2.000<br/>         _____ 2.688       </p> | <p>NOTE:</p> <ol style="list-style-type: none"> <li>1) BALDOR LOGO, "NO LOAD", AND "VIBRATION (IN/SEC.)" TO BE CENTERED ON PAGE.</li> <li>2) "IEEE", "SPECIAL TEST", AND "OTHER" TO BE <math>\frac{3}{16}</math>" HIGH.</li> <li>3) "HEATER RESISTANCE (WHEN REQ'D)" AND "LT0019A00" TO BE <math>\frac{3}{32}</math>" HIGH.</li> <li>4) ALL OTHER LETTERING TO BE <math>\frac{1}{8}</math>" HIGH.</li> </ol> |   |
| MTL: 5.5" X 7"    2 PART CARBONLESS WHITE/MANILA  |  |   |
| REV. DESC: ADD DIMENSIONS AND MATERIAL INFO<br>REV. LTR: D    VERSION: 01    TDR: 000000724943<br>FILE: \AAA\00070\447    REVISED: 04:02:06 08/22/2012<br>MTL: 5.5 X 7    2 PART CARBONLESS WHITE/MANILA    BY: ENJERWO   |  | <br>MOTOR NO LOAD PERFORMANCE DATA SHEET<br>SH 1 of 1 |

LT0019A00