

# **BALDOR**® • **RELIANCE**

## **Product Information Packet**

# **VECP82334T-4**

**20HP, 1765RPM, 3PH, 60HZ, 256TC, 0960M, TEFC, F**

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| Part Detail |       |             |       |                |          |               |            |
|-------------|-------|-------------|-------|----------------|----------|---------------|------------|
| Revision:   | K     | Status:     | PRD/A | Change #:      |          | Proprietary:  | No         |
| Type:       | AC    | Prod. Type: | 0960M | Elec. Spec:    | 09WGY946 | CD Diagram:   |            |
| Enclosure:  | TEFC  | Mfg Plant:  |       | Mech. Spec:    | 09H404   | Layout:       |            |
| Frame:      | 256TC | Mounting:   | F1    | Poles:         | 04       | Created Date: | 02-26-2010 |
| Base:       | N     | Rotation:   | R     | Insulation:    | F        | Eff. Date:    | 08-14-2012 |
| Leads:      | 3#12  | Literature: |       | Elec. Diagram: |          | Replaced By:  |            |

| Nameplate NP2155 |              |                   |      |                         |            |        |      |
|------------------|--------------|-------------------|------|-------------------------|------------|--------|------|
| STK.NO.          | VECP82334T-4 | P/N               |      | ENCLOSURE               | TEFC       |        |      |
| SPEC.            | 09H404Y946   | CC                | 010A | FRAME                   | 256TC      | S/N    |      |
| HP               | 20           | CLASS             | F    | HZ                      | 60         |        |      |
| RPM              | 1765         | T. CODE           | T3   | PH                      | 3          | DES    | B    |
| VOLT             | 460          | KVA-CODE          | G    | ODE BRG                 | 6309       | DE BRG | 6309 |
| AMP              | 23.1         | MOTOR WEIGHT      | 325  |                         |            |        |      |
| RATING           | 40C AMB-CONT | MAX. KVAR         | 4.2  | GREASE                  | POLYREX EM |        |      |
| NEMA-NOM-EFF     | 93           | # OF ROTOR BARS   | 40   | SER.F.                  | 1.15       |        |      |
| G.MIN.EFF        | 91.7         | # OF STATOR SLOTS | 48   | PF                      | 86         |        |      |
| HTR-VOLTS        |              | HTR-AMPS          |      | MAX. SPACE HEATER TEMP. |            |        |      |

| Parts List    |  |          |
|---------------|--|----------|
| Part Number   | Description                              | Quantity |
| SA192929      | SA 09H404Y946                            | 1.000 EA |
| RA180553      | RA 09H404Y946                            | 1.000 EA |
| 09FN3001D01SP | EXTERNAL FAN, PLASTIC                    | 1.000 EA |
| HW1002A63     | WASHER, 5/8 HI-COLLAR SPRLCKWASHER       | 1.000 EA |
| WD1000B19     | TERMINAL BURNDY L250HP                   | 1.000 EA |
| 10XN3118K08   | 5/16-18 X .50 GRADE #5, STL, ZINC PLATE  | 1.000 EA |
| HW1001A31     | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 1.000 EA |
| 09CB1002A12P  | KOBX W/1.25 NPT LEAD HOLE & 2.38 MTG HOL | 1.000 EA |
| 09GS1010      | GASKET, DWG, LEADWIRE SEPERATOR          | 1.000 EA |
| 10XN2520K12   | 1/4-20 X.75 GRD 5                        | 4.000 EA |
| HW1001A25     | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 EA |
| WD1000B16     | KPA-4C BURNDY TERMINAL                   | 1.000 EA |
| 10XN2520K06   | 1/4-20 X 3/8" HX HD SCREWGRADE 5, ZINC P | 1.000 EA |
| HW1001A25     | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 1.000 EA |
| HA3400A39     | STUD- 3/8-16 X 6.19 OAL HEX WELKER       | 4.000 EA |
| HA4017A08     | .125X3.50 GREASER EXTEN. NLA             | 1.000 EA |
| HA4017A10     | 1/8X1.25 GREASE EXT (F/S)                | 1.000 EA |
| HA4024A02     | 1/8 DOUBLE FEMALE SS CPLG, MCM #4464K351 | 1.000 EA |
| HW4601A61     | INPRO SEAL #1698-A-17120-0, VBXX 309 BRG | 1.000 EA |
| 10XN2520K36   | 1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P | 4.000 EA |
| HW5100A11     | W3917-042 WVY WSHR (WB)                  | 1.000 EA |
| 09EP1300A73P  | ENDPLATE, MACH EPOXY PRIMER              | 1.000 EA |
| 10XN3816K28   | 3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5  | 4.000 EA |
| HW1001A38     | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |

| Parts List (continued) |  |          |
|------------------------|--|----------|
| Part Number            | Description                              | Quantity |
| HW4601A61              | INPRO SEAL #1698-A-17120-0, VBXX 309 BRG | 1.000 EA |
| 10XN2520K36            | 1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P | 4.000 EA |
| 09FH1000P              | FAN COVER, CAST W/EPOXY PRIMER           | 1.000 EA |
| XY3816A12              | 3/8-16 FINISHED NUT                      | 4.000 EA |
| HW1001A38              | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| HW1001A38              | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| 12CB1503A01P           | KOLD MACH, W/LIP & EPOXY PRIMER          | 1.000 EA |
| 12GS1002               | GASKET, CONDUIT BOX LID, NEOP            | 1.000 EA |
| 10XN3118K16            | 5/16-18 X 1" GRADE #5, STL, ZINC PLATE   | 2.000 EA |
| HW1001A31              | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 2.000 EA |
| MJ5004A59              | ADHESIVE LOCTITE #401 SURFACE INSENSITIV | 0.010 EA |
| HW2501G25              | KEY, 3/8 SQ X 2.875                      | 1.000 EA |
| MJ5001A01              | 46-665 RED SEALER                        | 0.031 QT |
| MJ5001A14              | DYNAPRO SEAL, CP MOTORS VC#2508050 (603  | 0.023 EA |
| LB1115                 | LABEL,LIFTING DEVICE                     | 1.000 EA |
| LB5040                 | INSTRUCTION TAG, AC & DC                 | 1.000 EA |
| LB1002                 | LABEL,MARINE DUTY (ON ROLLS)             | 1.000 EA |
| PK6014                 | STEEL STRAP FOR 309-312 BASELESS MOTORS  | 3.000 EA |
| 19XW3118A08            | .31-18 X .50 HEX WASHER HEAD TAPTITE II  | 3.000 EA |
| WD1000B49              | TERMINAL BURNDY YAV10-T4                 | 3.000 EA |
| 09EP1118A06GP6         | FREP MACH, 309 BRG.INPRO SEALS-EPOXY PRI | 1.000 EA |
| HW4500A21              | 1618BALEMITE FITTING 825 UNIVERSAL       | 1.000 EA |
| HW4500A17              | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HA4051A00              | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |

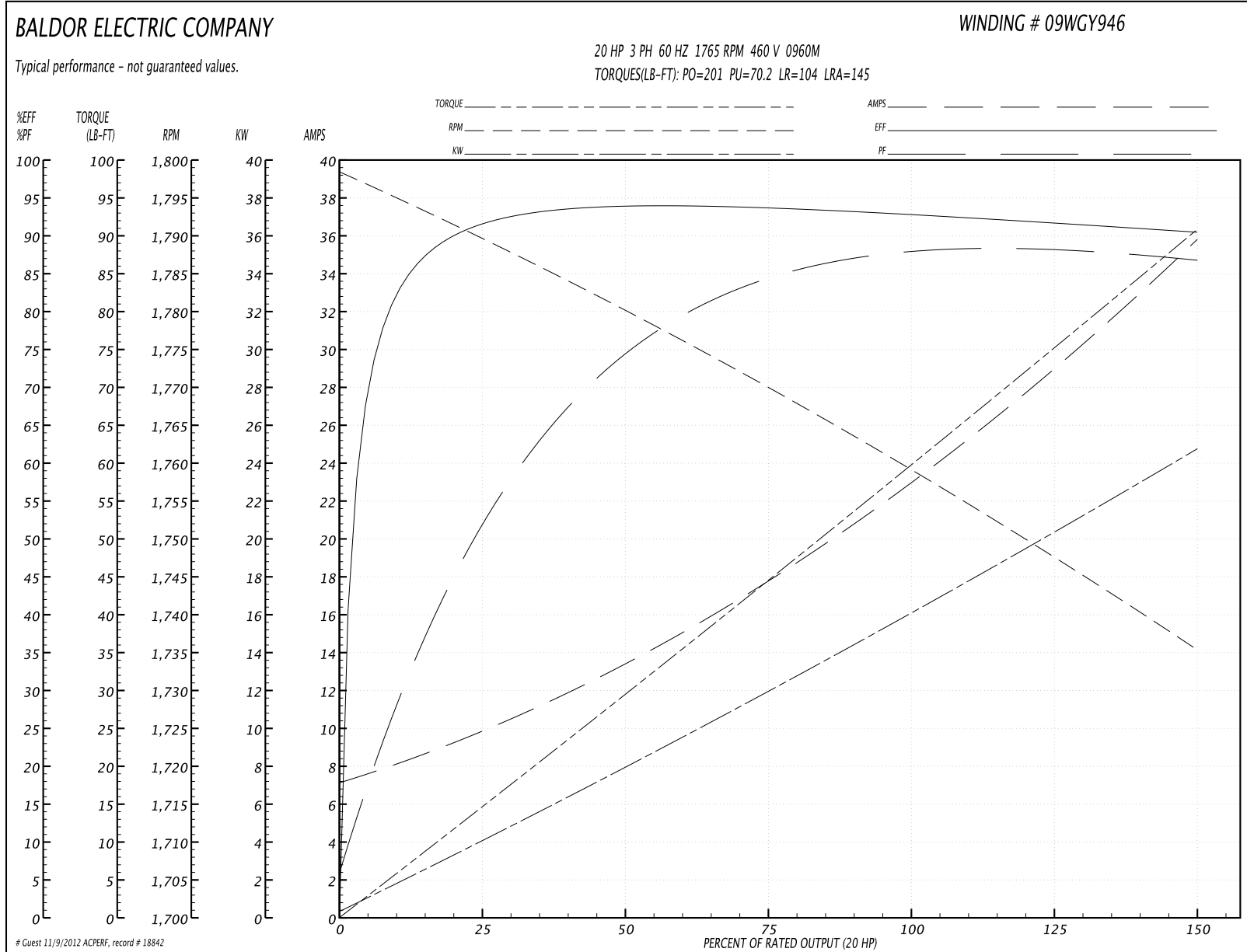
| Parts List (continued) |  |          |
|------------------------|--|----------|
| Part Number            | Description                              | Quantity |
| HA4002A01              | DRAIN PLUG STAINLESS STL                 | 1.000 EA |
| MJ1000A75              | GREASE, POLYREX EM EXXON                 | 0.080 LB |
| HW4500A03              | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A17              | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HA4051A00              | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |
| HA4002A01              | DRAIN PLUG STAINLESS STL                 | 1.000 EA |
| HW2500A25              | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 EA |
| 51XB1214A20            | 12-14X1.25 HXWSSLD SERTYB                | 1.000 EA |
| MG1025N19              | PAINT, 778.50 WILKO, RELIANCE ELEC GREEN | 0.050 GA |
| 85XU0407S04            | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 EA |
| LB1449                 | DIV-2/NEC WARNING LABEL                  | 1.000 EA |
| LB1119                 | WARNING LABEL                            | 1.000 EA |
| LB1125C02              | SUPER-E (STOCK CTN LABEL SUPER-E WITH FL | 4.000 EA |
| LB1357                 | ENERGY GUIDE LABEL (BOX LABEL)           | 1.000 SH |
| LC0006                 | CONNECTION LABEL                         | 1.000 EA |
| NP2155                 | IEEE-841,NP, ECP, DIV 2                  | 1.000 EA |
| 40PA1014               | PACKAGING GROUP, 09 NO BASE              | 1.000 EA |

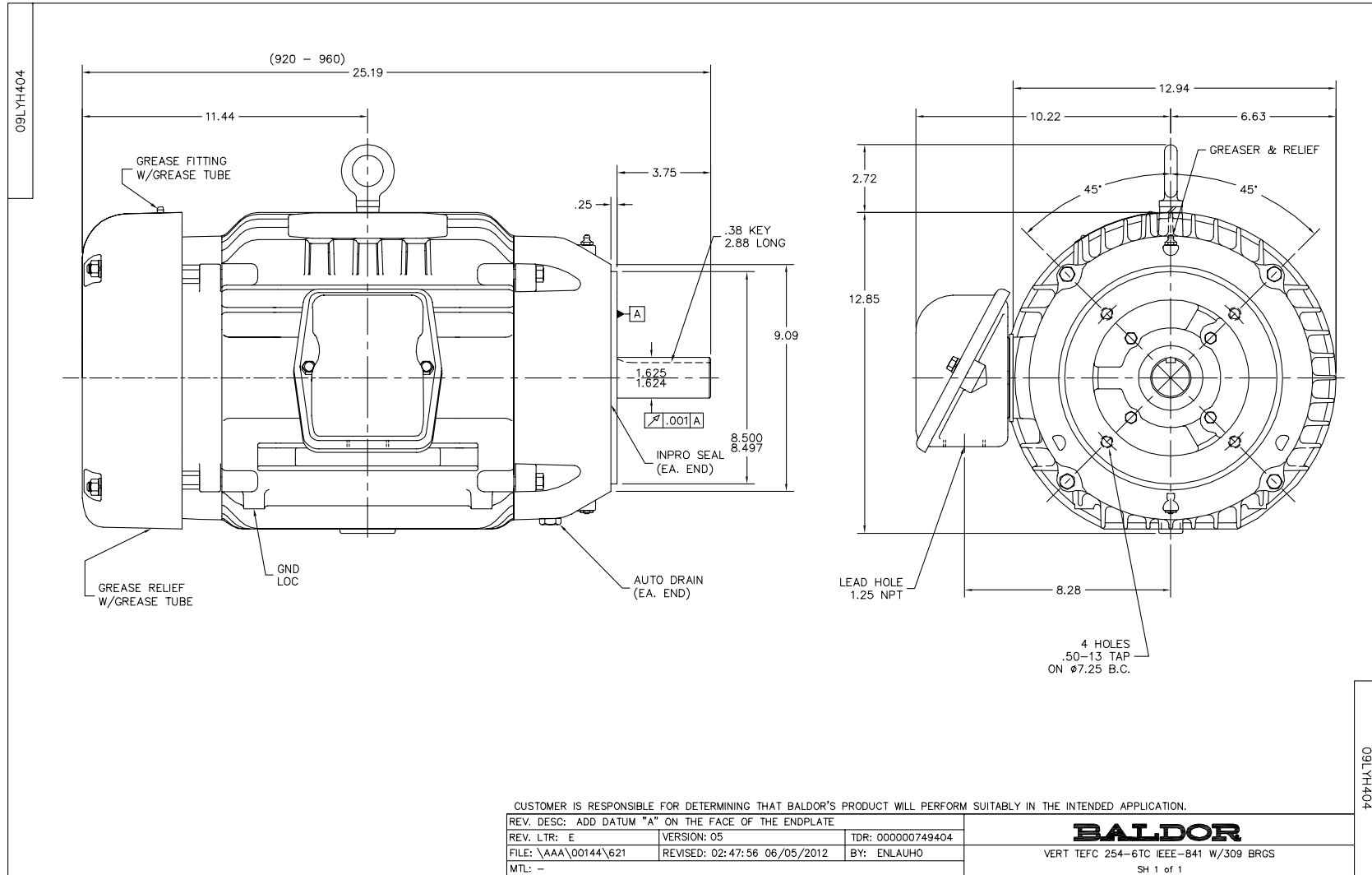
**Performance Data at 460V, 60Hz, 20.0HP (Typical performance - Not guaranteed values)**

| General Characteristics  |                                 |                      |             |
|--------------------------|---------------------------------|----------------------|-------------|
| Full Load Torque:        | 59.2 LB-FT                      | Start Configuration: | DOL         |
| No-Load Current:         | 7.54 Amps                       | Break-Down Torque:   | 201.0 LB-FT |
| Line-line Res. @ 25°C.:  | 0.455 Ohms A Ph / 0.0 Ohms B Ph | Pull-Up Torque:      | 70.2 LB-FT  |
| Temp. Rise @ Rated Load: | 62 C                            | Locked-Rotor Torque: | 104.0 LB-FT |
| Temp. Rise @ S.F. Load:  | 78 C                            | Starting Current:    | 145.0 Amps  |

| Load Characteristics |        |        |        |        |        |        |        |
|----------------------|--------|--------|--------|--------|--------|--------|--------|
| % of Rated Load      | 25     | 50     | 75     | 100    | 125    | 150    | S.F.   |
| Power Factor:        | 55.0   | 76.0   | 84.0   | 86.0   | 88.0   | 87.0   | 87.0   |
| Efficiency:          | 91.1   | 93.6   | 93.6   | 93.0   | 91.8   | 90.4   | 92.2   |
| Speed:               | 1789.0 | 1780.0 | 1770.0 | 1760.0 | 1748.0 | 1735.0 | 1753.0 |
| Line Amperes:        | 9.28   | 13.1   | 18.0   | 23.1   | 29.0   | 35.6   | 26.6   |

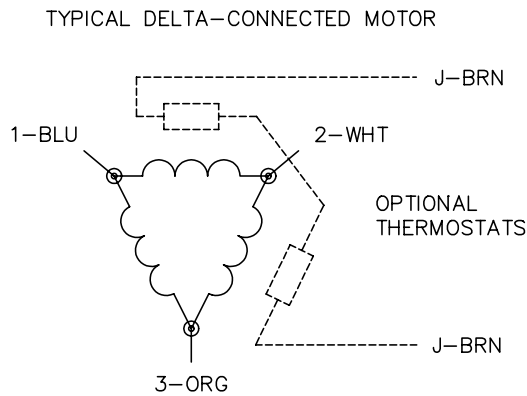
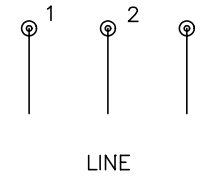
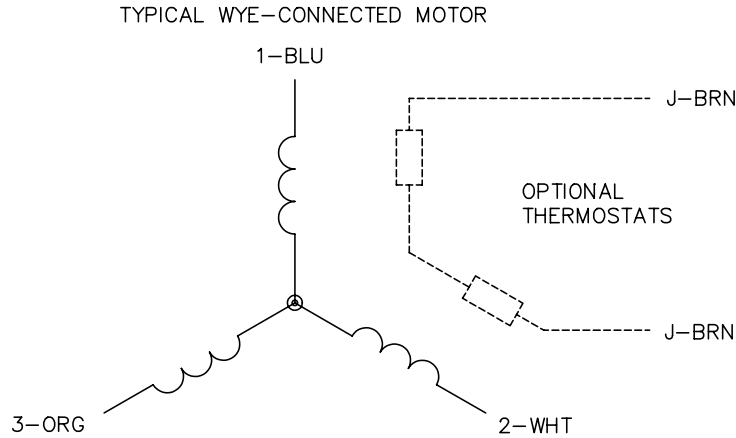
Performance Graph at 460V, 60Hz, 20.0HP Typical performance - Not guaranteed values







CD0006



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 _____<br/>         (WHEN REQ'D)<br/>         VIBRATION (IN/SEC.) _____<br/>         OPPOSITE DRIVE END DRIVE END<br/>         HORZ. VERT. HORZ. VERT. AXIAL.<br/>         1.625 .875 .875<br/>         TESTER _____ DATE / /<br/>         OTHER _____<br/>         LT0019A00<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> <p style="text-align: center;">MTL: 5.5" X 7" 2 PART CARBONLESS WHITE/MANILA</p> |   |                                      |               |  |             |             |                   |  |                      |                              |  |                                      |   |  |             |           |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">REV. DESC: ADD DIMENSIONS AND MATERIAL INFO</td> <td colspan="2" style="text-align: center;"><b>BALDOR</b></td> </tr> <tr> <td>REV. LTR: D</td> <td>VERSION: 01</td> <td colspan="2">TDR: 000000724943</td> </tr> <tr> <td>FILE: \AAA\00070\447</td> <td colspan="2">REVISED: 04:02:06 08/22/2012</td> <td style="text-align: center;">MOTOR NO LOAD PERFORMANCE DATA SHEET</td> </tr> <tr> <td colspan="2">MTL: 5.5 X 7 2 PART CARBONLESS WHITE/MANILA</td> <td>BY: ENJERWO</td> <td style="text-align: center;">SH 1 of 1</td> </tr> </table>  |   | REV. DESC: ADD DIMENSIONS AND MATERIAL INFO |                                      | <b>BALDOR</b> |  | REV. LTR: D | VERSION: 01 | TDR: 000000724943 |  | FILE: \AAA\00070\447 | REVISED: 04:02:06 08/22/2012 |  | MOTOR NO LOAD PERFORMANCE DATA SHEET | MTL: 5.5 X 7 2 PART CARBONLESS WHITE/MANILA |  | BY: ENJERWO | SH 1 of 1 |
| REV. DESC: ADD DIMENSIONS AND MATERIAL INFO  |   | <b>BALDOR</b>                               |                                      |               |  |             |             |                   |  |                      |                              |  |                                      |   |  |             |           |
| REV. LTR: D  | VERSION: 01   | TDR: 000000724943                           |                                      |               |  |             |             |                   |  |                      |                              |  |                                      |   |  |             |           |
| FILE: \AAA\00070\447   | REVISED: 04:02:06 08/22/2012  |   | MOTOR NO LOAD PERFORMANCE DATA SHEET |               |  |             |             |                   |  |                      |                              |  |                                      |   |  |             |           |
| MTL: 5.5 X 7 2 PART CARBONLESS WHITE/MANILA  |   | BY: ENJERWO                                 | SH 1 of 1                            |               |  |             |             |                   |  |                      |                              |  |                                      |   |  |             |           |

LT0019A00