

# **BALDOR® • RELIANCE**

## **Product Information Packet**

# **VEM3311T**

**7.5HP,1770RPM,3PH,60HZ,213TC,3733M,ODP,F**

| Part Detail |       |                |       |             |          |               |            |
|-------------|-------|----------------|-------|-------------|----------|---------------|------------|
| Revision:   | G     | Status:        | PRD/A | Change #:   |          | Proprietary:  | No         |
| Type:       | AC    | Prod. Type:    | 3734M | Elec. Spec: | 37WGS520 | CD Diagram:   | CD0005     |
| Enclosure:  | ODP   | Mfg Plant:     |       | Mech. Spec: | 37K446   | Layout:       | 37LYK446   |
| Frame:      | 213TC | Mounting:      | F1    | Poles:      | 04       | Created Date: | 04-29-2015 |
| Base:       | N     | Rotation:      | R     | Insulation: | F        | Eff. Date:    | 11-09-2016 |
| Leads:      | 9#14  |                |       |             |          | Replaced By:  |            |
| Literature: |       | Elec. Diagram: |       |             |          |               |            |

|                            |              |  |             |    |                       |      |  |           |           |   |
|----------------------------|--------------|--|-------------|----|-----------------------|------|--|-----------|-----------|---|
| <b>Nameplate NP3553L</b>   |              |  |             |    |                       |      |  |           |           |   |
| <b>CAT.NO.</b>             | VEM3311T     |  |             |    |                       |      |  |           |           |   |
| <b>SPEC.</b>               | 37K446S520G1 |  |             |    |                       |      |  |           |           |   |
| <b>HP</b>                  | 7.5          |  |             |    |                       |      |  |           |           |   |
| <b>VOLTS</b>               | 230/460      |  |             |    |                       |      |  |           |           |   |
| <b>AMP</b>                 | 19.4/9.7     |  |             |    |                       |      |  |           |           |   |
| <b>RPM</b>                 | 1770         |  |             |    |                       |      |  |           |           |   |
| <b>FRAME</b>               | 213TC        |  |             |    | <b>HZ</b>             | 60   |  |           | <b>PH</b> | 3 |
| <b>SER.F.</b>              | 1.15         |  | <b>CODE</b> | J  | <b>DES</b>            | A    |  | <b>CL</b> | F         |   |
| <b>NEMA-NOM-EFF</b>        | 91           |  | <b>PF</b>   | 79 |                       |      |  |           |           |   |
| <b>RATING</b>              | 40C AMB-CONT |  |             |    |                       |      |  |           |           |   |
| <b>CC</b>                  | 010A         |  |             |    | <b>USABLE AT 208V</b> |      |  | 20.4      |           |   |
| <b>DE</b>                  | 6307         |  |             |    | <b>ODE</b>            | 6206 |  |           |           |   |
| <b>ENCL</b>                | ODP          |  | <b>SN</b>   |    |                       |      |  |           |           |   |
| <b>VPWM INVERTER READY</b> |              |  |             |    |                       |      |  |           |           |   |
| CT30-60(2:1) VT3-60(20:1)  |              |  |             |    |                       |      |  |           |           |   |
|                            |              |  |             |    |                       |      |  |           |           |   |

| Parts List    |  |          |
|---------------|--|----------|
| Part Number   | Description                              | Quantity |
| SA300128      | SA 37K446S520G1                          | 1.000 EA |
| RA287174      | RA 37K446S520G1                          | 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 |
| 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 |
| 37EP3200A40   | FR L&M OPEN W/GRS & DRIP COVER           | 1.000 EA |
| HW4500A01     | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 EA |
| HW5100A06     | W2420-025 WVY WSHR (WB)                  | 1.000 EA |
| 37EP3400A02   | FACE MT EP-OPEN-307 BRG-213-215TC W/BAFF | 1.000 EA |
| HW4500A01     | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 EA |
| 37AD2000A01   | BAFFLE PLATE, STAMPED PLATED             | 1.000 EA |
| 60XW0632A06   | 6-32 X 3/8 TORX HEAD SCREW TAPTITE II    | 4.000 EA |
| 10XN2520A28   | 1/4-20X 1 3/4 HEX HD                     | 4.000 EA |
| HW1001A25     | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 EA |
| XY3118A12     | 5/16-18 HEX NUT DIRECTIONAL SERRATION    | 4.000 EA |
| 37FH4000A05SP | DRIP COVER, W/ PRIMER                    | 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 |
| 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 |

| <b>Parts List (continued)</b> |  |                 |
|-------------------------------|--|-----------------|
| <b>Part Number</b>            | <b>Description</b>                       | <b>Quantity</b> |
| 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        |
| NP3553L                       | ALUM SUPER-E VPWM INVERTER READY UL      | 1.000 EA        |
| G0PA1000                      | PKG GRP, PRINT PK1026A06                 | 1.000 EA        |
| PK3082                        | STYROFOAM CRADLE                         | 1.000 EA        |
| MN416A01                      | TAG-INSTAL-MAINT no wire (1200/bx) 11/14 | 1.000 EA        |

**AC Induction Motor Performance Data**

Record # 35207 - Typical performance - not guaranteed values

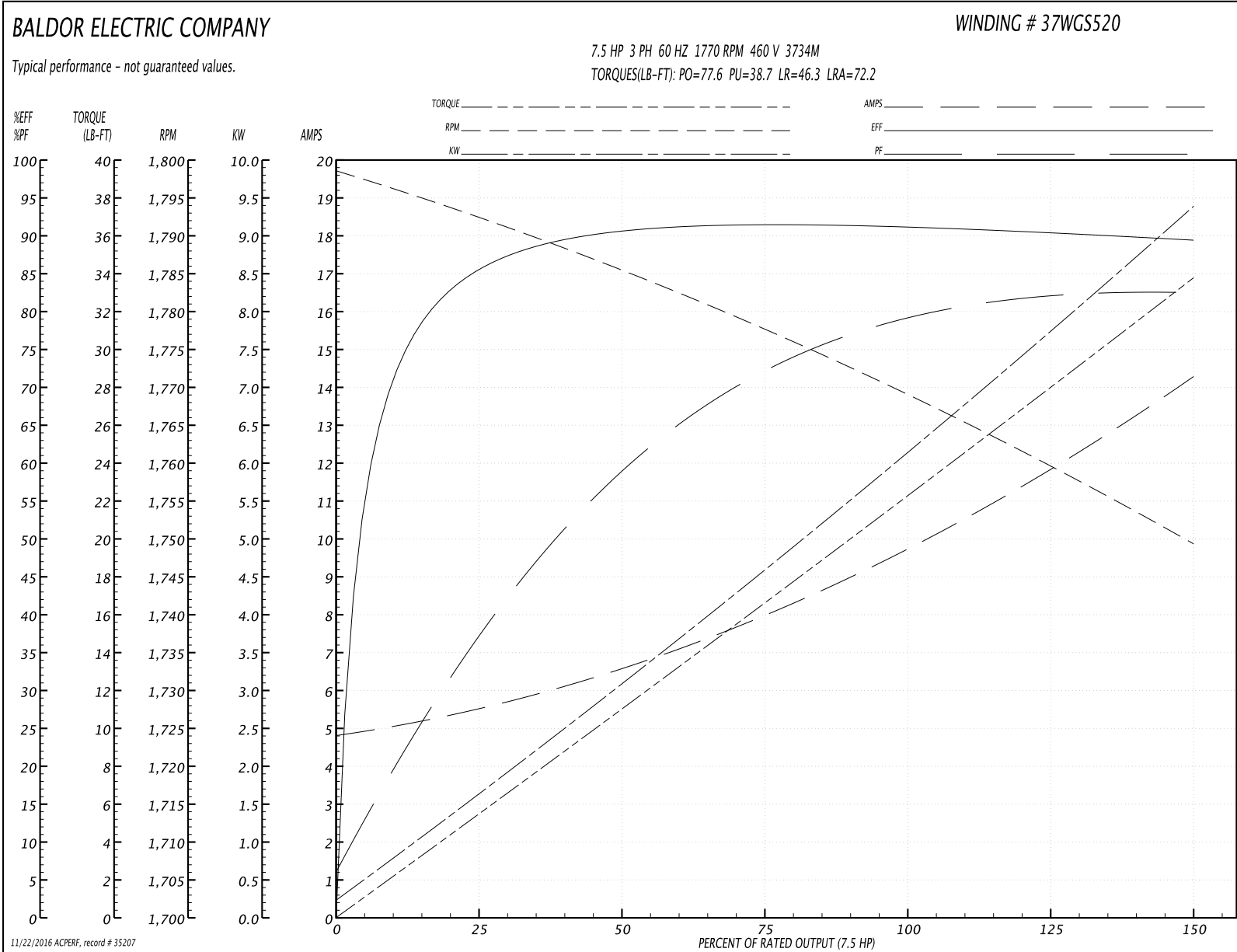
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 37WGS520-R002 | <b>Type:</b> 3734M | <b>Enclosure:</b> OPSB |
|-------------------------------|--------------------|------------------------|

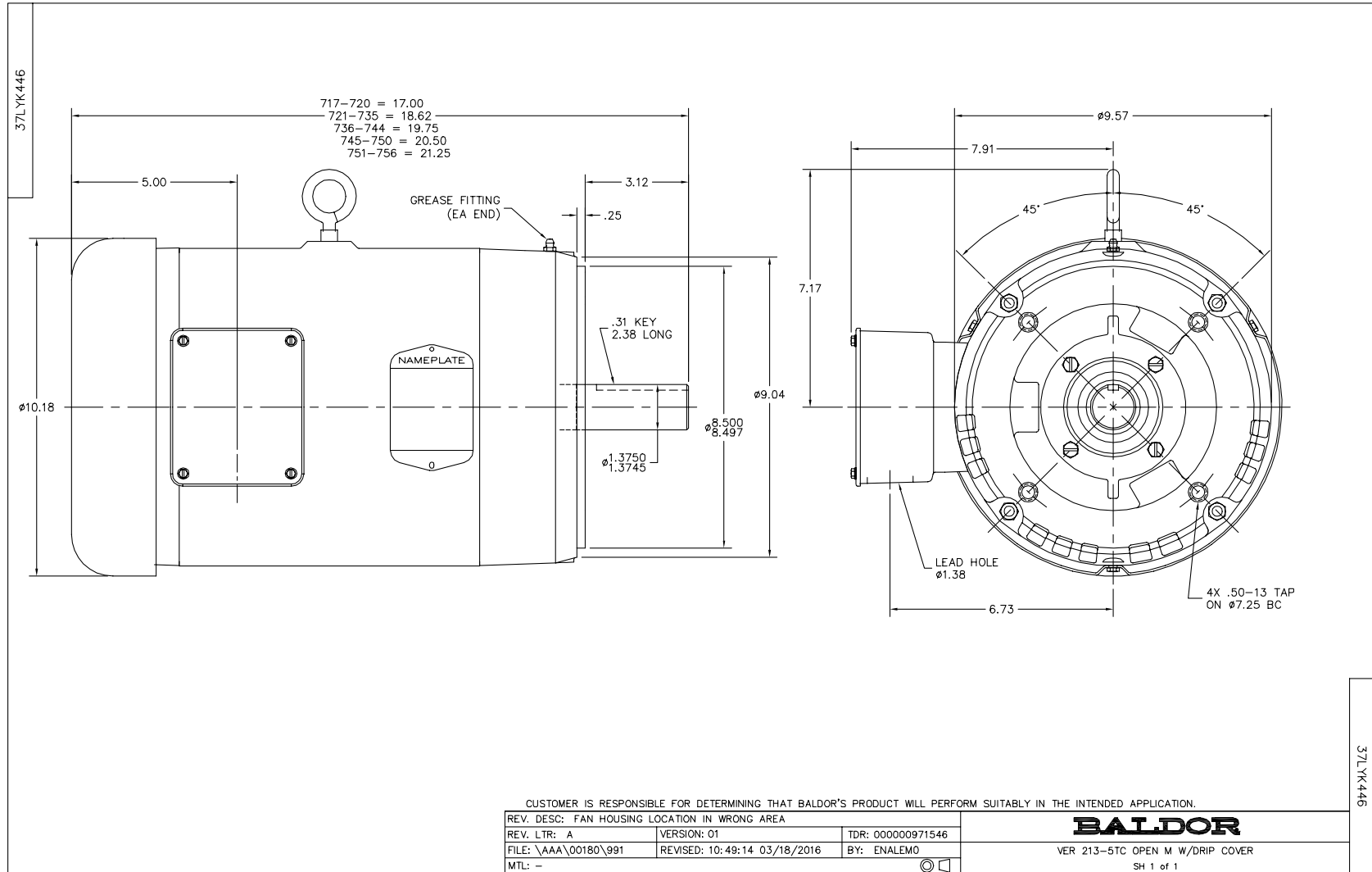
| Nameplate Data        |              |              |    | 460 V, 60 Hz:<br>High Voltage Connection |                          |
|-----------------------|--------------|--------------|----|--|--------------------------|
| Rated Output (HP)     | 7.5          |              |    | Full Load Torque                         | 22.4 LB-FT               |
| Volts                 | 230/460      |              |    | Start Configuration                      | direct on line           |
| Full Load Amps        | 19.4/9.7     |              |    | Breakdown Torque                         | 77.6 LB-FT               |
| R.P.M.                | 1770         |              |    | Pull-up Torque                           | 38.7 LB-FT               |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                      | 46.3 LB-FT               |
| NEMA Design Code      | A            | KVA Code     | J  | Starting Current                         | 72.2 A                   |
| Service Factor (S.F.) | 1.15         |              |    | No-load Current                          | 4.94 A                   |
| NEMA Nom. Eff.        | 91           | Power Factor | 79 | Line-line Res. @ 25°C                    | 1.53 Ω                   |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                  | 37°C                     |
| S.F. Amps             |              |              |    | Temp. Rise @ S.F. Load                   | 45°C                     |
|                       |              |              |    | Locked-rotor Power Factor                | 39.2                     |
|                       |              |              |    | Rotor inertia                            | 0.836 LB-FT <sup>2</sup> |

Load Characteristics 460 V, 60 Hz, 7.5 HP

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 38   | 60   | 72   | 78   | 82   | 83   | 81   |
| Efficiency      | 85.1 | 90.4 | 91.6 | 91.3 | 90.5 | 89.4 | 90.7 |
| Speed           | 1792 | 1785 | 1778 | 1769 | 1760 | 1749 | 1766 |
| Line amperes    | 5.35 | 6.5  | 8.01 | 9.89 | 11.9 | 14.2 | 11   |

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





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 |
| 9000D                                     |         | FILE: AAA00005140       | MDL: -       |
|   |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005