

# **BALDOR® • RELIANCE**

## **Product Information Packet**

# **EM2539T**

**40HP, 1770RPM, 3PH, 60HZ, 324T, 4064M, OPSB, F1**

| Part Detail |      |                |       |             |          |               |            |
|-------------|------|----------------|-------|-------------|----------|---------------|------------|
| Revision:   | U    | Status:        | PRD/A | Change #:   |          | Proprietary:  | No         |
| Type:       | AC   | Prod. Type:    | 4064M | Elec. Spec: | 40WGX166 | CD Diagram:   | CD0005     |
| Enclosure:  | OPSB | Mfg Plant:     |       | Mech. Spec: | 40J002   | Layout:       | 40LYJ002   |
| Frame:      | 324T | Mounting:      | F1    | Poles:      | 04       | Created Date: | 10-22-2010 |
| Base:       | RG   | Rotation:      | R     | Insulation: | F        | Eff. Date:    | 01-13-2017 |
| Leads:      | 9#8  |                |       |             |          | Replaced By:  |            |
| Literature: |      | Elec. Diagram: |       |             |          |               |            |

|                          |              |  |                |      |  |                         |            |      |        |      |  |
|--------------------------|--------------|--|----------------|------|--|-------------------------|------------|------|--------|------|--|
| <b>Nameplate NP3554L</b> |              |  |                |      |  |                         |            |      |        |      |  |
| CAT.NO.                  | EM2539T      |  | P/N            |      |  |                         | ENCLOSURE  | OPSB |        |      |  |
| SPEC.                    | 40J002X166G1 |  | CC             | 010A |  | FRAME                   | 324T       |      | S/N    |      |  |
| HP                       | 40           |  | CLASS          | F    |  | HZ                      | 60         |      |        |      |  |
| RPM                      | 1770         |  | PH             | 3    |  | DES                     | A          |      |        |      |  |
| VOLT                     | 230/460      |  | KVA-CODE       | H    |  | ODE BRG                 | 6309       |      | DE BRG | 6312 |  |
| AMP                      | 98/49        |  | USABLE AT 208V | 99   |  |                         |            |      |        |      |  |
| RATING                   | 40C AMB-CONT |  | NEMA-NOM-EFF   | 94.1 |  | GREASE                  | POLYREX EM |      |        |      |  |
| PF                       | 82           |  | SER.F.         | 1.15 |  | VPWM INVERTER READY     |            |      |        |      |  |
| HTR-VOLTS                |              |  | HTR-AMPS       |      |  | MAX. SPACE HEATER TEMP. |            |      |        |      |  |

| Parts List     |  |          |
|----------------|--|----------|
| Part Number    | Description                              | Quantity |
| SA205150       | SA 40J002X166G1                          | 1.000 EA |
| RA192394       | RA 40J002X166G1                          | 1.000 EA |
| S/P107-000-004 | SUPER-E(284 FR. & UP)-CL PLANT,POLYREX E | 1.000 EA |
| HA6361A01      | LIFTING LUG FOR 37, 39 & 40 FRAME ZINC   | 2.000 EA |
| HA6017         | CAST ADAPTER, 40,42 KOBX                 | 1.000 EA |
| 19XW3118A12    | .31-18 X .75 HEX WASHER HEAD TAPTITE II  | 2.000 EA |
| HW1001A31      | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 2.000 EA |
| 10CB3001       | CONDUIT BOX CAST W/2.500 LEAD HOLE       | 1.000 EA |
| 19XW3118A12    | .31-18 X .75 HEX WASHER HEAD TAPTITE II  | 4.000 EA |
| HW1001A31      | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 EA |
| WD1000B16      | T&B CX70TN TERMINAL                      | 1.000 EA |
| 10XN2520K08    | 1/4-20 X .50 GRADE #5, STL, ZINC PLATE   | 1.000 EA |
| HW1001A25      | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 1.000 EA |
| 40EP3200A02    | STD FREP OPEN 309 BRG                    | 1.000 EA |
| HW5100A11      | W3917-042 WVY WSHR (WB)                  | 1.000 EA |
| 40EP3201A01    | PU ENDPLATE, MACH - OPEN - FOR 312 BRG   | 1.000 EA |
| XY3816A12      | 3/8-16 FINISHED NUT                      | 4.000 EA |
| 10CB3500SP     | CONDUIT BOX LID, CAST                    | 1.000 EA |
| 51XW2520A12    | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 4.000 EA |
| HW2501H33      | KEY, 1/2 SQ X 3.875                      | 1.000 EA |
| LB1115N        | LABEL,LIFTING DEVICE (ON ROLLS)          | 1.000 EA |
| MN416A01       | TAG-INSTAL-MAINT no wire (1000/bx) 11/14 | 1.000 EA |
| HA4051A00      | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |
| HW4500A03      | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |

| <b>Parts List (continued)</b> |  |                 |
|-------------------------------|--|-----------------|
| <b>Part Number</b>            | <b>Description</b>                       | <b>Quantity</b> |
| HW4500A20                     | 1/8NPT SL PIPE PLUG                      | 1.000 EA        |
| MJ1000A02                     | GREASE, POLYREX EM EXXON (USe 4824-15A)  | 0.050 LB        |
| HW4500A03                     | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA        |
| HW4500A20                     | 1/8NPT SL PIPE PLUG                      | 1.000 EA        |
| HA4051A00                     | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA        |
| MG1000Y03                     | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,      | 0.030 GA        |
| 85XU0407S04                   | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 EA        |
| 40AD2002A01                   | LEXAN BAFFLE 40 FR OPEN                  | 1.000 EA        |
| 40AD2002A01                   | LEXAN BAFFLE 40 FR OPEN                  | 1.000 EA        |
| HA3113A13                     | THRUBOLT 3/8-16 X 19.750 W/4.00 THD LENG | 4.000 EA        |
| LC0005E01                     | CONN.DIA./WARNING LABEL (LC0005/LB1119N) | 1.000 EA        |
| NP3554L                       | SS SUPER-E UL CSA-EEV PREM CC            | 1.000 EA        |
| 40PA1000                      | PACKAGING GROUP                          | 1.000 EA        |

**AC Induction Motor Performance Data**

Record # 31313 - Typical performance - not guaranteed values

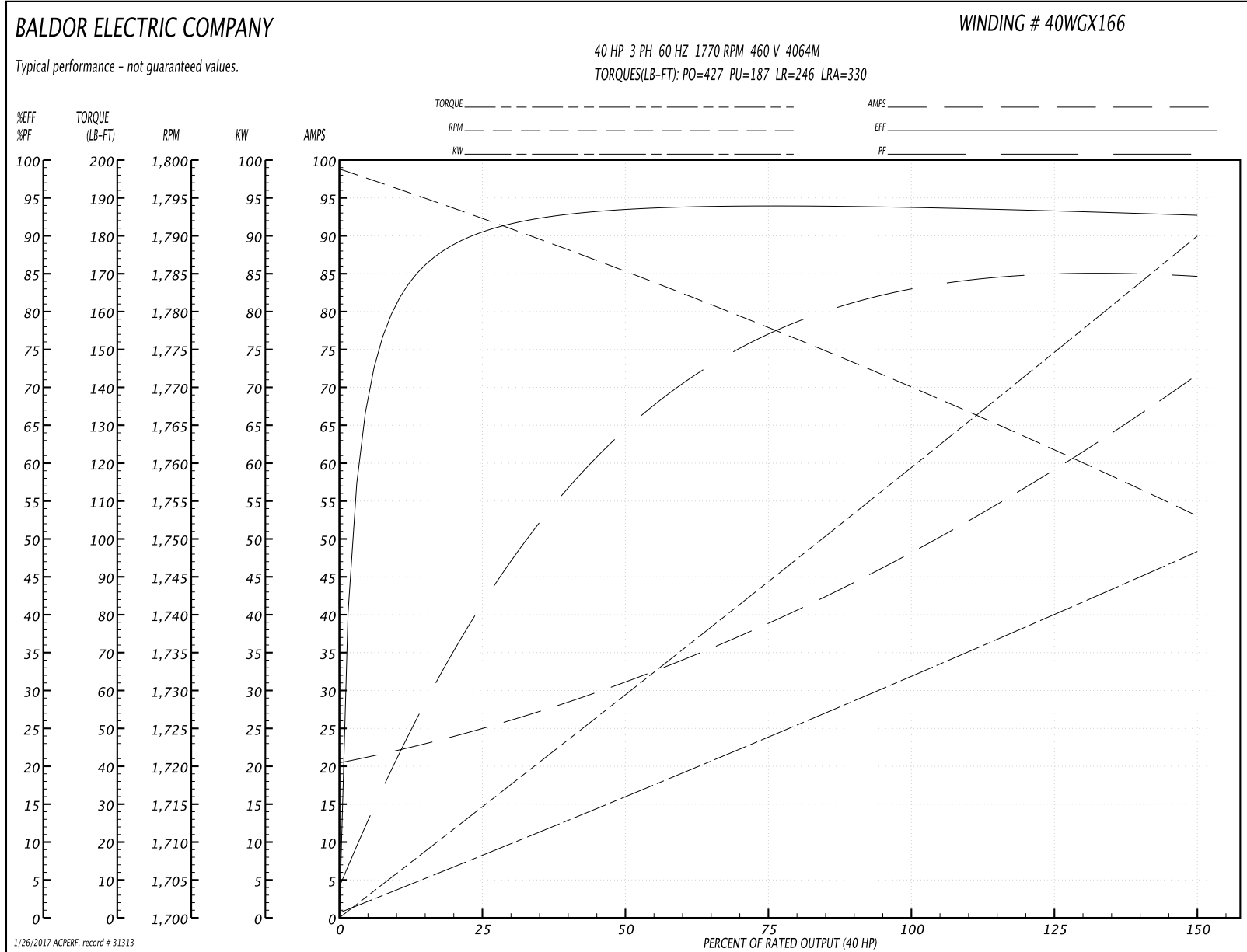
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 40WGX166-R002 | <b>Type:</b> 4064M | <b>Enclosure:</b> OPSB |
|-------------------------------|--------------------|------------------------|

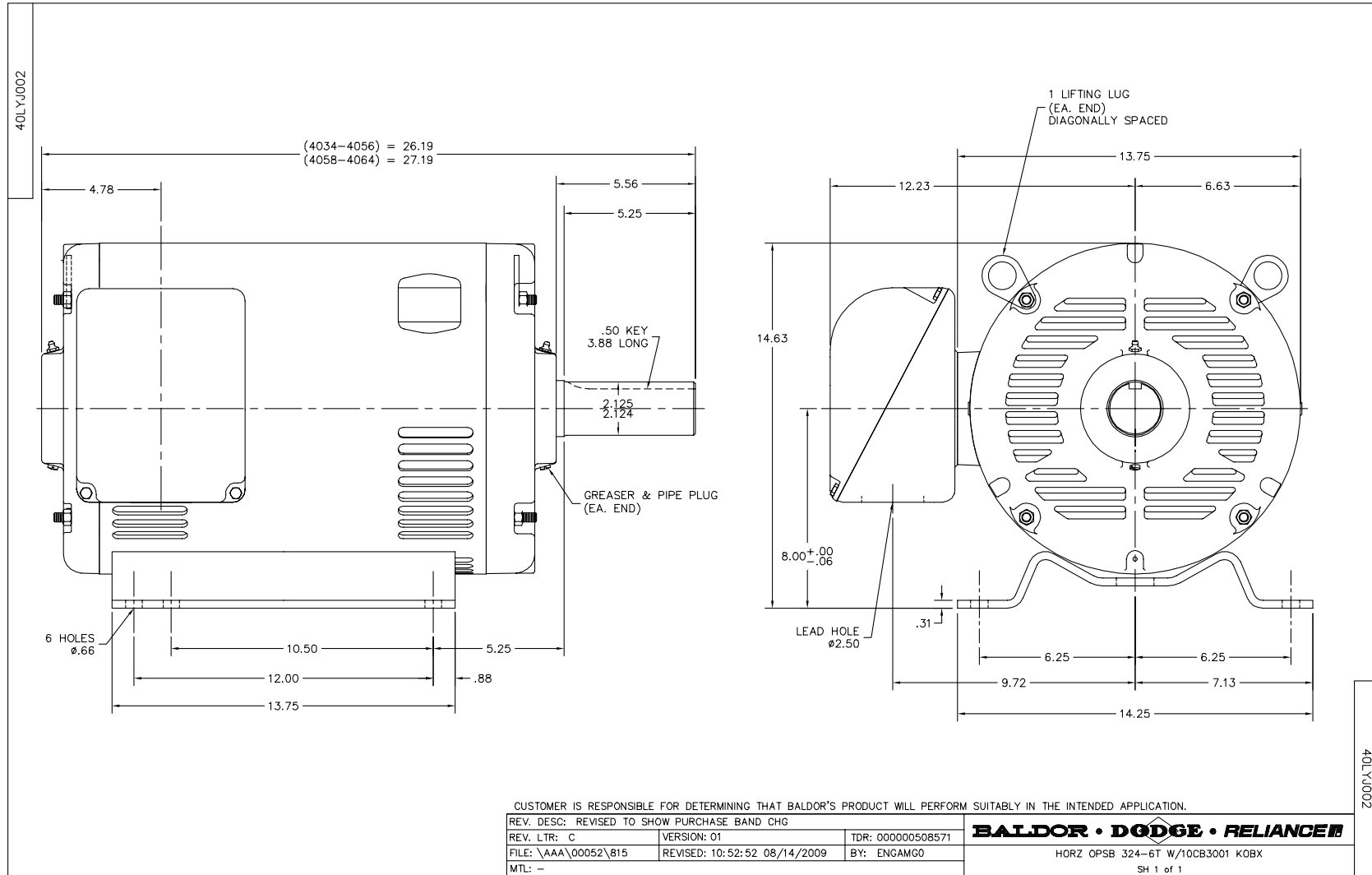
| Nameplate Data        |              |              |    | 460 V, 60 Hz:<br>High Voltage Connection |                         |
|-----------------------|--------------|--------------|----|--|-------------------------|
| Rated Output (HP)     | 40           |              |    | Full Load Torque                         | 119 LB-FT               |
| Volts                 | 230/460      |              |    | Start Configuration                      | direct on line          |
| Full Load Amps        | 98/49        |              |    | Breakdown Torque                         | 427 LB-FT               |
| R.P.M.                | 1770         |              |    | Pull-up Torque                           | 187 LB-FT               |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                      | 246 LB-FT               |
| NEMA Design Code      | A            | KVA Code     | H  | Starting Current                         | 330 A                   |
| Service Factor (S.F.) | 1.15         |              |    | No-load Current                          | 21.1 A                  |
| NEMA Nom. Eff.        | 94.1         | Power Factor | 82 | Line-line Res. @ 25°C                    | 0.16236 Ω               |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                  | 41°C                    |
| S.F. Amps             |              |              |    | Temp. Rise @ S.F. Load                   | 51°C                    |
|                       |              |              |    | Locked-rotor Power Factor                | 32                      |
|                       |              |              |    | Rotor inertia                            | 5.09 LB-FT <sup>2</sup> |

Load Characteristics 460 V, 60 Hz, 40 HP

| % of Rated Load | 25     | 50   | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|------|--------|--------|--------|--------|------|
| Power Factor    | 43     | 65   | 76     | 82     | 85     | 85     | 84   |
| Efficiency      | 91.1   | 94   | 94.5   | 94.2   | 93.6   | 92.8   | 93.8 |
| Speed           | 1792.4 | 1785 | 1777.8 | 1770.2 | 1762.1 | 1752.8 | 1765 |
| Line amperes    | 24.1   | 30.7 | 39.2   | 48.7   | 59.3   | 71.3   | 55.1 |

Performance Graph at 460V, 60Hz, 40.0HP Typical performance - Not guaranteed values





CD0005

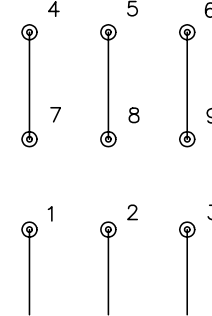


LOW VOLTAGE  
(2Y)



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 |
| 900000                                    |         | FILE: AAA00005140       | MDL: -       |
|   |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005