

# **BALDOR® • RELIANCE**

## **Product Information Packet**

### **EM4114T**

**50HP,3540RPM,3PH,60HZ,326TS,1252M,TEFC,F**

| Part Detail |       |                |       |             |          |               |            |
|-------------|-------|----------------|-------|-------------|----------|---------------|------------|
| Revision:   | K     | Status:        | PRD/A | Change #:   |          | Proprietary:  | No         |
| Type:       | AC    | Prod. Type:    | 1252M | Elec. Spec: | 12WGY291 | CD Diagram:   | CD0180     |
| Enclosure:  | TEFC  | Mfg Plant:     |       | Mech. Spec: | 12M09    | Layout:       | 12LYM009   |
| Frame:      | 326TS | Mounting:      | F1    | Poles:      | 02       | Created Date: | 05-06-2010 |
| Base:       | RG    | Rotation:      | R     | Insulation: | F        | Eff. Date:    | 12-15-2015 |
| Leads:      | 9#8   |                |       |             |          | Replaced By:  |            |
| Literature: |       | Elec. Diagram: |       |             |          |               |            |

## Nameplate NP3443LUA

|           |                            |          |                |                         |       |           |            |        |
|-----------|----------------------------|----------|----------------|-------------------------|-------|-----------|------------|--------|
| CAT.NO.   | EM4114T                    |          | P/N            |                         |       | ENCLOSURE | TEFC       |        |
| SPEC.     | 12M009Y291G1               | CC       | 010A           | FRAME                   | 326TS | S/N       |            |        |
| HP        | 50                         |          | CLASS          | F                       | HZ    | 60        |            |        |
| RPM       | 3540                       |          | PH             | 3                       | DES   | A         |            |        |
| VOLT      | 230/460                    |          | KVA-CODE       | H                       |       | ODE BRG   | 6311       | DE BRG |
| AMP       | 112/56                     |          | USABLE AT 208V | 122                     |       |           |            |        |
| RATING    | 40C AMB-CONT               |          | NEMA-NOM-EFF   | 93                      |       | GREASE    | POLYREX EM |        |
| PF        | 90                         | SER.F.   | 1.15           |                         |       |           |            |        |
| USABLE AT | 50Hz 50HP 190/380V 134/67A |          |                |                         |       | SF1.0     |            |        |
| HTR-VOLTS |                            | HTR-AMPS |                | MAX. SPACE HEATER TEMP. |       |           |            |        |

| Parts List     |                                           |          |
|----------------|-------------------------------------------|----------|
| Part Number    | Description                               | Quantity |
| SA194422       | SA 12M009Y291G1                           | 1.000 EA |
| RA182009       | RA 12M009Y291G1                           | 1.000 EA |
| 37FN3002C04    | EXFN, PLASTIC, 6.00 OD, 2.000 ID          | 1.000 EA |
| S/P107-000-004 | SUPER-E(284 FR. & UP)-CL PLANT,POLYREX E  | 1.000 EA |
| 10CB3001       | CONDUIT BOX CAST W/2.500 LEAD HOLE        | 1.000 EA |
| 12GS1000       | GASKET                                    | 1.000 EA |
| 10XN3118K12    | 5/16-18 X .75 GRADE 5, ZINC PLATED        | 4.000 EA |
| HW1001A31      | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I  | 4.000 EA |
| WD1000B16      | T&B CX70TN TERMINAL                       | 1.000 EA |
| 51XF2520A08    | SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L  | 1.000 EA |
| 12EP1107A05    | FR ENDPLATE, MACH 324-6T                  | 1.000 EA |
| 10XN5013K28    | 1/2-13 X 1.75 HEX HEAD MACH SCREW,GRAD    | 4.000 EA |
| HW1001A50      | LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I | 4.000 EA |
| HW4600B41      | V-RING SLINGER 2.125 X 2.880 X 0.280      | 1.000 EA |
| HW5100A13      | W4627-047 WVY WSHER                       | 1.000 EA |
| 12EP1106A01    | PU ENDPLATE, MACH 324-6T                  | 1.000 EA |
| 10XN3118K36    | 5/16-18 X 2.25" HEX HD, GRADE 5           | 2.000 EA |
| HW1001A31      | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I  | 2.000 EA |
| 10XN3118K40    | 5/16-18 X 2.50" HEX HD, GRADE 5           | 4.000 EA |
| HW1001A31      | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I  | 4.000 EA |
| HA3400A13      | STUD, 1/2-13 X 7" WELKER                  | 4.000 EA |
| HW1001A50      | LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I | 4.000 EA |
| 12FH1002SP     | FAN COVER, CAST QF,WAUPACA QUALITY        | 1.000 EA |
| XY5013A12      | NUT,1/2-13,HEX,STEEL,ZINCPLATED           | 4.000 EA |

| Parts List (continued) |                                           |          |
|------------------------|-------------------------------------------|----------|
| Part Number            | Description                               | Quantity |
| HW1001A50              | LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I | 4.000 EA |
| 10CB3500               | CONDUIT BOX LID, CAST                     | 1.000 EA |
| 10GS1000               | GASKET, CONDUIT BOX LID                   | 1.000 EA |
| 51XW2520A12            | .25-20 X .75, TAPTITE II, HEX WSHR SLTD   | 4.000 EA |
| HW2501H18              | KEY, 1/2 SQ X 2.000                       | 1.000 EA |
| LB1115N                | LABEL,LIFTING DEVICE (ON ROLLS)           | 1.000 EA |
| MN416A01               | TAG-INSTAL-MAINT no wire (1200/bx) 11/14  | 1.000 EA |
| HW4500A21              | 1618BALEMITE FITTING 825 UNIVERSAL        | 1.000 EA |
| HA4017A01              | 1/8 X 4 GREASE EXT (F/S)                  | 1.000 EA |
| HW4500A17              | 317400 ALEMITE GREASE RELIEF              | 1.000 EA |
| HA4054                 | SHORT T-DRAIN FITTING, .125" N.P.T.       | 1.000 EA |
| HA4051A00              | PLASTIC CAP FOR GREASE FITTING            | 1.000 EA |
| MJ1000A02              | GREASE, POLYREX EM EXXON (USe 4824-15A)   | 0.200 LB |
| HW4500A03              | GREASE FITTING, .125 NPT 1610(ALEMITE) 8  | 1.000 EA |
| HW4500A17              | 317400 ALEMITE GREASE RELIEF              | 1.000 EA |
| HA4054                 | SHORT T-DRAIN FITTING, .125" N.P.T.       | 1.000 EA |
| HA4051A00              | PLASTIC CAP FOR GREASE FITTING            | 1.000 EA |
| HW2500A25              | WOODRUFF KEY USA #1008 #BLOW CARBON STEE  | 1.000 EA |
| 51XB1214A20            | 12-14X1.25 HXWSSLD SERTYB                 | 1.000 EA |
| MG1000Y03              | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,       | 0.125 GA |
| 85XU0407S04            | 4X1/4 U DRIVE PIN STAINLESS               | 4.000 EA |
| LB1119N                | WARNING LABEL                             | 1.000 EA |
| LC0181                 | CONNECTION LABEL                          | 1.000 EA |
| NP3443LUA              | SS SUPER-E UL CSA-EEV PREM CC             | 1.000 EA |

|          |                                 |          |
|----------|---------------------------------|----------|
| 12PA1000 | PACKAGING GROUP PRINT PK1024A06 | 1.000 EA |
|----------|---------------------------------|----------|

| Accessories   |              |            |
|---------------|--------------|------------|
| Part Number   | Description  | Multiplier |
| 12-1105       | C FACE KIT   | A8         |
| 12EP1501A03SP | D-FLANGE KIT | A8         |

**AC Induction Motor Performance Data**

Record # 35504 - Typical performance - not guaranteed values

|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 12WGY291-R005 | <b>Type:</b> 1252M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data        |              |              |    | 460 V, 60 Hz:<br>High Voltage Connection |                         |
|-----------------------|--------------|--------------|----|------------------------------------------|-------------------------|
| Rated Output (HP)     | 50           |              |    | Full Load Torque                         | 74.4 LB-FT              |
| Volts                 | 230/460      |              |    | Start Configuration                      | direct on line          |
| Full Load Amps        | 112/56       |              |    | Breakdown Torque                         | 292 LB-FT               |
| R.P.M.                | 3540         |              |    | Pull-up Torque                           | 112 LB-FT               |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                      | 139 LB-FT               |
| NEMA Design Code      | A            | KVA Code     | H  | Starting Current                         | 408 A                   |
| Service Factor (S.F.) | 1.15         |              |    | No-load Current                          | 14.9 A                  |
| NEMA Nom. Eff.        | 93           | Power Factor | 90 | Line-line Res. @ 25°C                    | 0.11257 Ω               |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                  | 77°C                    |
| S.F. Amps             |              |              |    | Temp. Rise @ S.F. Load                   | 95°C                    |
|                       |              |              |    | Locked-rotor Power Factor                | 21                      |
|                       |              |              |    | Rotor inertia                            | 4.07 LB-FT <sup>2</sup> |

**Load Characteristics 460 V, 60 Hz, 50 HP**

|                 |        |        |        |        |        |        |      |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
| Power Factor    | 66     | 82     | 88     | 90     | 91     | 90     | 91   |
| Efficiency      | 91.1   | 93.8   | 94.2   | 93.9   | 93.2   | 92.3   | 93.5 |
| Speed           | 3584.1 | 3571.8 | 3558.2 | 3544.1 | 3528.2 | 3511.2 | 3535 |
| Line amperes    | 20.4   | 30.8   | 42.9   | 55.8   | 69.5   | 84.6   | 64   |

## Performance Graph at 460V, 60Hz, 50.0HP Typical performance - Not guaranteed values





