

# **BALDOR® • RELIANCE**

## **Product Information Packet**

# **CEM4110T**

**40HP, 1775RPM, 3PH, 60HZ, 324TC, 1254M, TEFC, F**

| Part Detail |       |                |       |             |          |               |            |
|-------------|-------|----------------|-------|-------------|----------|---------------|------------|
| Revision:   | J     | Status:        | PRD/A | Change #:   |          | Proprietary:  | No         |
| Type:       | AC    | Prod. Type:    | 1254M | Elec. Spec: | 12WGY276 | CD Diagram:   | CD0180     |
| Enclosure:  | TEFC  | Mfg Plant:     |       | Mech. Spec: | 12C52    | Layout:       | 12LYC052   |
| Frame:      | 324TC | Mounting:      | F1    | Poles:      | 04       | Created Date: | 06-25-2010 |
| Base:       | RG    | Rotation:      | R     | Insulation: | F        | Eff. Date:    | 05-25-2016 |
| Leads:      | 9#8   |                |       |             |          | Replaced By:  |            |
| Literature: |       | Elec. Diagram: |       |             |          |               |            |

|                            |                            |                |      |                          |            |        |      |  |  |
|----------------------------|----------------------------|----------------|------|--------------------------|------------|--------|------|--|--|
| <b>Nameplate NP3443LUA</b> |                            |                |      |                          |            |        |      |  |  |
| CAT.NO.                    | CEM4110T                   | P/N            |      | ENCLOSURE                | TEFC       |        |      |  |  |
| SPEC.                      | 12C052Y276G1               | CC             | 010A | FRAME                    | 324TC      | S/N    |      |  |  |
| HP                         | 40                         | CLASS          | F    | HZ                       | 60         |        |      |  |  |
| RPM                        | 1775                       | PH             | 3    | DES                      | A          |        |      |  |  |
| VOLT                       | 230/460                    | KVA-CODE       | H    | ODE BRG                  | 6311       | DE BRG | 6312 |  |  |
| AMP                        | 96/48                      | USABLE AT 208V | 102  |                          |            |        |      |  |  |
| RATING                     | 40C AMB-CONT               | NEMA-NOM-EFF   | 94.1 | GREASE                   | POLYREX EM |        |      |  |  |
| PF                         | 82                         | SER.F.         | 1.15 |                          |            |        |      |  |  |
| USABLE AT                  | 50Hz 40HP 190/380V 114/57A |                |      |                          | SF1.0      |        |      |  |  |
| HTR-VOLTS                  |                            | HTR-AMPS       |      | MAX. SPACE HEATER TEMP.: |            |        |      |  |  |

| Parts List     |   |          |
|----------------|---|----------|
| Part Number    | Description                               | Quantity |
| SA198990       | SA 12C052Y276G1                           | 1.000 EA |
| RA186341       | RA 12C052Y276G1                           | 1.000 EA |
| 09FN3001B03SP  | EXTERNAL FAN, PLASTIC                     | 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 |
| 12GS1000SP     | 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 |
| HA3400A13      | STUD, 1/2-13 X 7" WELKER                  | 4.000 EA |
| HW1001A50      | LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I | 4.000 EA |
| HW5100A13      | W4627-047 WVY WSHER                       | 1.000 EA |
| 12EP1105A01    | 1PU ENDPLATE, MACH                        | 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 |
| 10XN3118K44    | 5/16-18 X 2.75" HEX HD, GRADE 5           | 4.000 EA |
| HW1001A31      | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I  | 4.000 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 |
| 12FH1002SP     | FAN COVER, CAST QF,WAUPACA QUALITY        | 1.000 EA |
| HW1001A50      | LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I | 4.000 EA |
| XY5013A12      | NUT,1/2-13,HEX,STEEL,ZINCPLATED           | 4.000 EA |

| <b>Parts List (continued)</b> |  |                 |
|-------------------------------|--|-----------------|
| <b>Part Number</b>            | <b>Description</b>                       | <b>Quantity</b> |
| 10CB3500                      | CONDUIT BOX LID, CAST                    | 1.000 EA        |
| 10GS1000SP                    | GASKET, CONDUIT BOX LID                  | 1.000 EA        |
| 51XW2520A12                   | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 4.000 EA        |
| HW4600B41                     | V-RING SLINGER 2.125 X 2.880 X 0.280     | 1.000 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 (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,      | 0.080 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 |
|----------|---------------------------------|----------|

**AC Induction Motor Performance Data**

Record # 31673 - Typical performance - not guaranteed values

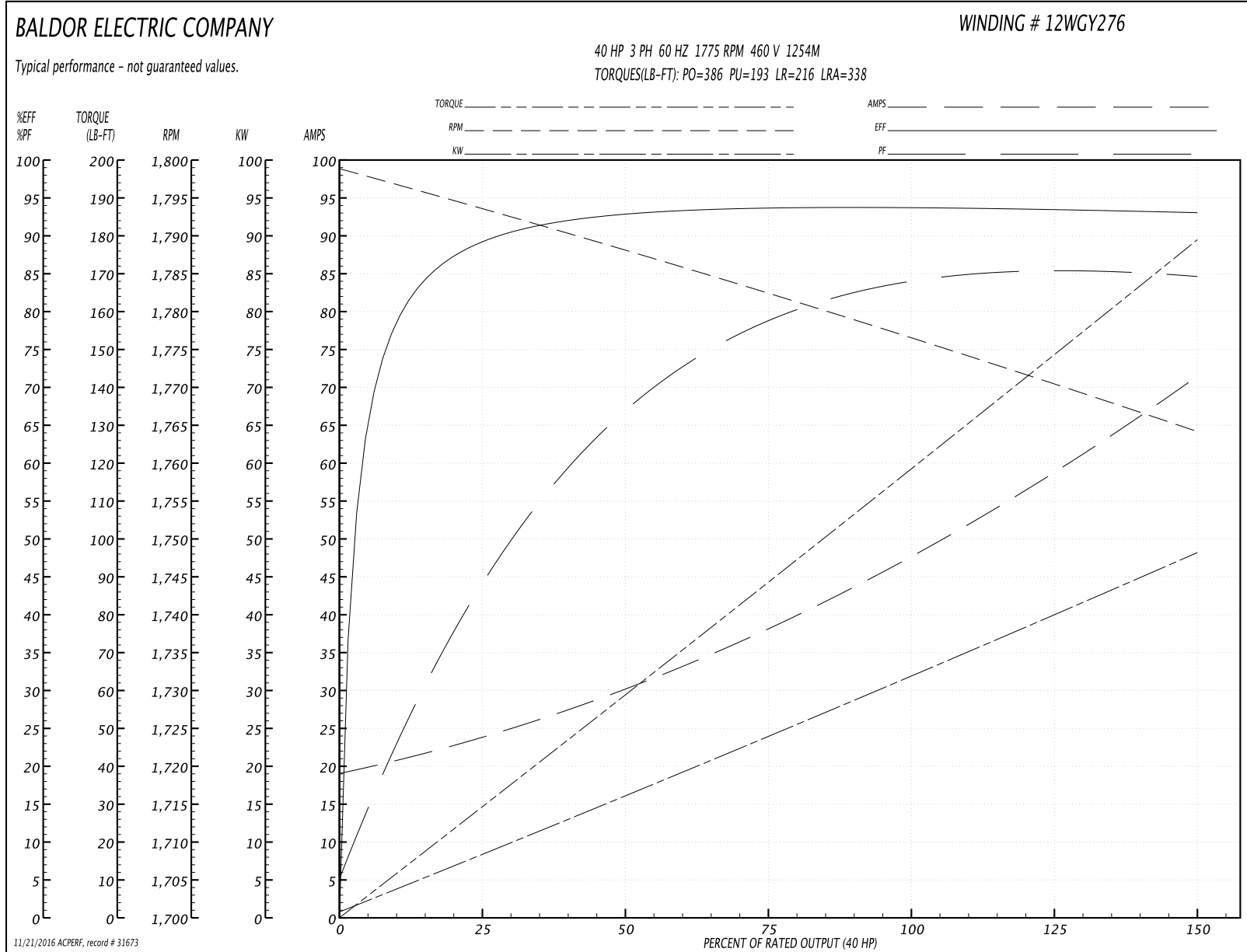
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 12WGY276-R001 | <b>Type:</b> 1254M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

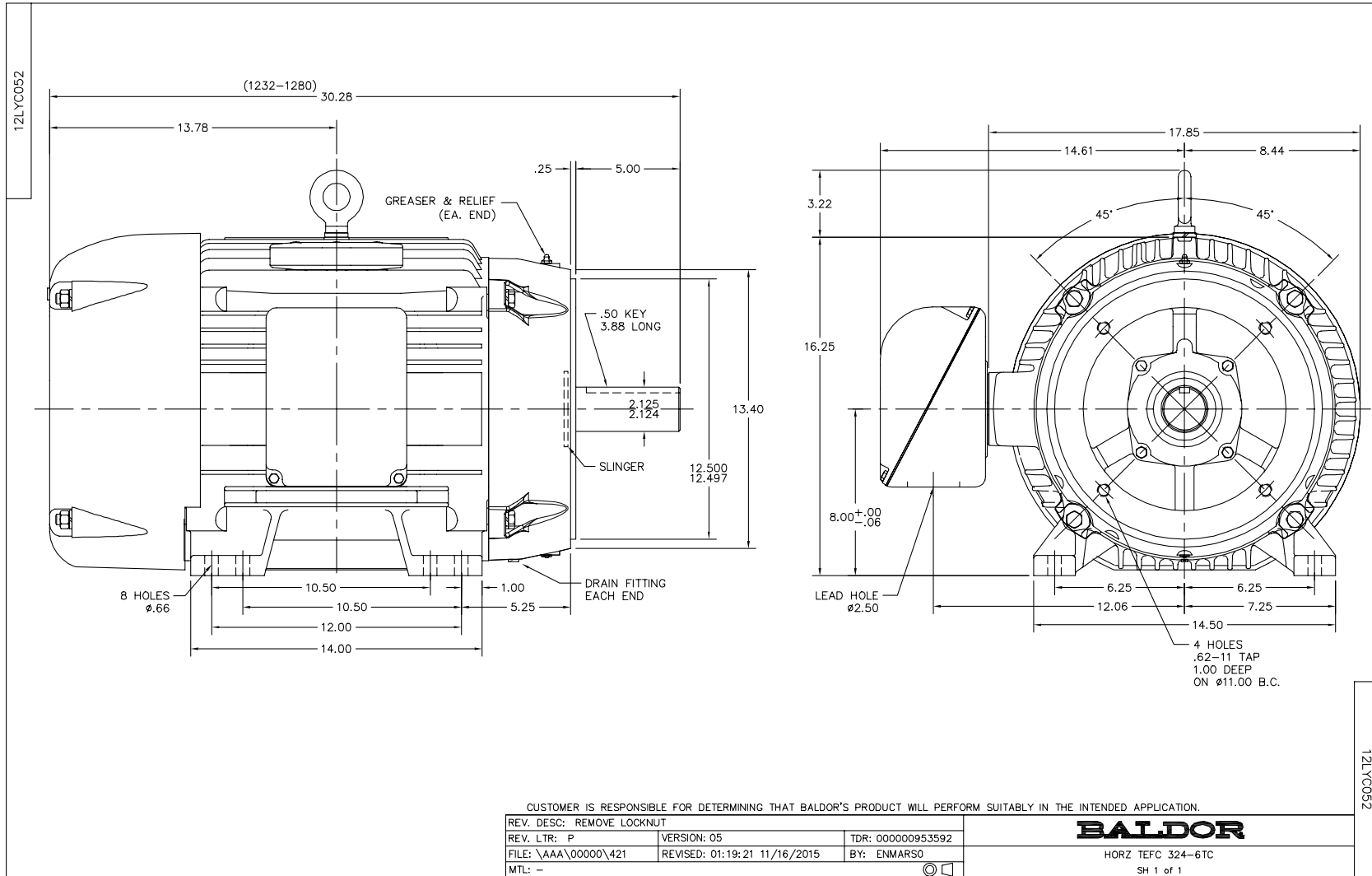
| Nameplate Data        |              |              |    | 460 V, 60 Hz:<br>High Voltage Connection |                         |
|-----------------------|--------------|--------------|----|--|-------------------------|
| Rated Output (HP)     | 40           |              |    | Full Load Torque                         | 118 LB-FT               |
| Volts                 | 230/460      |              |    | Start Configuration                      | direct on line          |
| Full Load Amps        | 96/48        |              |    | Breakdown Torque                         | 386 LB-FT               |
| R.P.M.                | 1775         |              |    | Pull-up Torque                           | 193 LB-FT               |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                      | 216 LB-FT               |
| NEMA Design Code      | A            | KVA Code     | H  | Starting Current                         | 338 A                   |
| Service Factor (S.F.) | 1.15         |              |    | No-load Current                          | 19.9 A                  |
| NEMA Nom. Eff.        | 94.1         | Power Factor | 82 | Line-line Res. @ 25°C                    | 0.14898 Ω               |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                  | 54°C                    |
| S.F. Amps             |              |              |    | Temp. Rise @ S.F. Load                   | 64°C                    |
|                       |              |              |    | Locked-rotor Power Factor                | 27.3                    |
|                       |              |              |    | Rotor inertia                            | 7.19 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    | 47     | 69   | 78     | 83     | 85     | 85     | 84   |
| Efficiency      | 90.1   | 93.5 | 94.2   | 94.2   | 93.8   | 93.1   | 94   |
| Speed           | 1793.5 | 1788 | 1782.5 | 1776.6 | 1770.7 | 1764.1 | 1773 |
| Line amperes    | 22.9   | 29.5 | 38.4   | 48.1   | 59.2   | 70.8   | 54.8 |

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

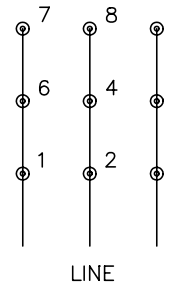




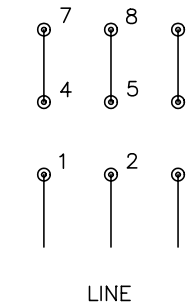
CD0180



LOW VOLTAGE  
(2D)



HIGH VOLTAGE  
(1D)



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: C                               | BY: JLP | REVISED: 01/21/99 2:28 | TDR: 0171435 |
| 0810D0                                    |         | FILE: AAA00005148      | MDL: -       |
|   |         | MTL: -                 |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS, DELTA CONNECTION

CD0180